考满分 GRE 作文系列(3)

# 新题库版《北美范文》 (2015-10-23 版)

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### 写在前面的话

(一定要看!一定要看!一定要看!)

GRE 写作备考中,范文的重要性不言而喻。目前市面上针对 GRE 写作的范文书有 2 本:《Official Guide(官方指南》》和《新 GRE 官方题库范文精讲》。其他的书,例如《GRE作文大讲堂》、《新 GRE 写作 5.5》等,是方法书而非范文书,因此不予讨论。

OG 作为 ETS 官方给出的材料,其中的写作范文一定要仔细的看。

《新 GRE 官方题库范文精讲》,前身叫《北美范文》。两本书里面的内容一模一样,所以俗称"北美范文"。《北美范文》中的文章,针对老 G 题库。因为新老 G 写作题库重复率很高,所以备考新 G 同样可以使用。

但是毕竟针对老 G 的《北美范文》使用起来不是很便利,所以我们做了一些改进。《北美范文》的结构是"老 G 题目 + 老 G 范文",本文档的结构是"新 G 题目 + 老 G 范文"。也就是,我们将《北美范文》中的老 G 题目更替为内容相同的新 G 题目,同时按新 G 的题目顺序重新进行了排序。当然,考虑到老 G 和新 G 的题毕竟存在细节差异,所以同学们在看文章的时候,如果发现文中有与题目对不上的地方,属于正常。

此外,老 G 的 Issue 部分写作要求和新 G 略有差异,Argument 部分更是没有诸如 assumption 这样的写作要求。所以我们在题目下面也没有给出相应要求。如果需要,请自 己参看新 G 题库(《考满分 GRE 作文系列(1)(2)》)。

时间充裕的同学,建议还是备一本完整的《新 GRE 官方题库范文精讲》。

最后,一如既往,祝各位有幸看到这份文档的同学,梦想成真,生活幸福:)

## Part 1: Issue

#### Issue 范文精讲

5

5 Claim: Governments must ensure that their major cities receive the financial support they need in order to thrive.

Reason: It is primarily in cities that a nation's cultural traditions are preserved and generated.

The speaker's claim is actually threefold: (1) ensuring the survival of large cities and, in turn, that of cultural traditions, is a proper function of government; (2) government support is needed for our large dries and cultural traditions to survive and thrive; and (3) cultural traditions are preserved and generated primarily in our large cities. I strongly disagree with all three claims.

First of all, subsidizing cultural traditions is not a proper role of government. Admittedly, certain objectives, such as public health and safety, are so essential to the survival of large dries and of nations that government has a duty to ensure that they are met. However, these objectives should not extend tenuously to preserving cultural traditions. Moreover, government cannot possibly play an evenhanded role as cultural patron. Inadequate resources call for restrictions, priorities, and choices. It is unconscionable to relegate normative decisions as to which cities or cultural traditions are more deserving, valuable, or needy to a few legislators, whose notions about culture might be misguided or unrepresentative of those of the general populace. Also, legislators are all too likely to make choices in favor of the cultural agendas of their home towns and states, or of lobbyists with the most money and influence.

Secondly, subsidizing cultural traditions is not a necessary role of government. A lack of private funding might justify an exception. However, culture--by which I chiefly mean the fine arts--has always depended primarily on the patronage of private individuals and businesses, and not on the government. The Medicis, a powerful banking family of Renaissance Italy, supported artists Michelangelo and Raphael. During the 20th Century the primary source of cultural support were private foundations established by industrial magnates Carnegie, Mellon, Rockefeller and Getty. And tomorrow cultural support will come from our new technology and media moguls----including the likes of Ted Turner and Bill Gates. In short, philanthropy is alive and well today, and so government need not intervene to ensure that our cultural traditions are preserved and promoted.

Finally, and perhaps most importantly, the speaker unfairly suggests that large cities serve as the primary breeding ground and sanctuaries for a nation's cultural traditions. Today a nation's distinct cultural traditions--its folk art, crafts, traditional songs, customs and ceremonies--burgeon instead in small towns and rural regions. Admittedly, our cities do serve as our centers for "high art"; big cities are where we deposit, display, and boast the world's preeminent art, architecture, and music. But big-city culture has little to do any- more with one

nation's distinct cultural traditions. After all, modern cities are essentially multicultural stew pots; accordingly, by assisting large cities a government is actually helping to create a global culture as well to subsidize the traditions of other nations' cultures.

In the final analysis, government cannot philosophically justify assisting large cities for the purpose of either promoting or preserving the nation's cultural traditions; nor is government assistance necessary toward these ends. Moreover, assisting large cities would have little bearing on our distinct cultural traditions, which abide elsewhere.

#### 21

#### 21 Laws should be flexible enough to take account of various circumstances, times, and places.

Some measure of consistency and stability in the law is critical for any society to function. Otherwise, I strongly agree with the speaker's assertion that laws should be flexible enough to adapt to different circumstances, times and places. The law of marital property aptly illustrates this point.

On the one hand, a certain measure of consistency, stability, and predictability in our laws is required in order for us to understand our legal obligations and rights as we go about our day-to-day business as a society. For example, in order for private industry to thrive, businesses must be afforded the security of knowing their legal rights and obligations visi-vis employees, federal regulatory agencies, and tax authorities--as well as their contractual rights and duties visi-vis customers and suppliers. Undue uncertainty in any one of these areas would surely have a chilling effect on business. Moreover, some measure of consistency in the legal environment from place to place promotes business expansion as well as interstate and international commerce, all of which are worthwhile endeavors in an increasingly mobile society.

On the other hand, rigid laws can result in unfairness if applied inflexibly in all places at all times. The framers of the U.S. Constitution recognized the need both for a flexible legal system and for flexible laws--by affording each state legal jurisdiction over all but interstate matters. The framers understood that social and economic problems, as well as standards of equity and fairness, can legitimately change over time and vary from region to region----even from town to town. And our nation's founders would be pleased to see their flexible system that promotes equity and fairness as it operates today.

Consider, for example, marital property rights, which vary considerably from state to state, and which have evolved considerably over time as inflexible, and unfair, systems have given way to more flexible, fairer ones. In earlier times husbands owned all property acquired during marriage as well as property brought into the marriage by either spouse. Understandably, this rigid and unfair system ultimately gave way to separate-property systems, which acknowledged property rights of both spouses. More recently certain progressive states have adopted even more flexible, and fairer, "community property" systems, under which each spouse owns half of all property acquired during the marriage, while each spouse retains a separate-property interest in his or her other property. Yet even these more egalitarian community-property systems can operate unfairly whenever spouses contribute unequally; accordingly, some community-property

states are now modifying their systems for even greater flexibility and fairness.

Thus, the evolution of state marital-property laws aptly illustrates the virtue of a legal system that allows laws to evolve to keep pace with changing mores, attitudes, and our collective sense of equity. This same example also underscores the point that inflexible laws tend to operate unfairly, and properly give way to more flexible ones--as our nation's founders intended.

#### 24, 29, 52

#### 24 The best way to teach is to praise positive actions and ignore negative ones.

The speaker suggests that the most effective way to teach others is to praise positive actions while ignoring negative ones. In my view, this statement is too extreme. It overlooks circumstances under which praise might be inappropriate, as well as ignoring the beneficial value of constructive criticism, and sometimes even punishment.

The recommendation that parents, teachers, and employers praise positive actions is generally good advice. For young children positive reinforcement is critical in the development of healthy self-esteem and self-confidence. For students appropriate positive feedback serves as a motivating force, which spurs them on to greater academic achievement. For employees, appropriately administered praise enhances productivity and employee loyalty, and makes for a more congenial and pleasant work environment overall.

While recommending praise for positive actions is fundamentally sound advice, this advice should carry with it certain caveats. First, some employees and older students might fred excessive praise to be patronizing or paternalistic. Secondly, some individuals need and respond more appropriately to praise than others; those administering the praise should be sensitive to the individual's need for positive reinforcement in the fzrst place. Thirdly, praise should be administered fairly and evenhandedly. By issuing more praise to one student than to others, a teacher might cause one recipient to be labeled by classmates as teacher's pet, even if the praise is well deserved or badly needed. If the result is to alienate other students, then the praise might not be justified. Similarly, at the workplace a supervisor must be careful to issue praise fairly and evenhandedly, or risk accusations of undue favoritism, or even discrimination.

As for ignoring negative actions, I agree that minor peccadilloes can, and in many cases should, be overlooked. Mistakes and other negative actions are often part of the natural learning process. Young children are naturally curious, and parents should not scold their children for every broken plate or precocious act. Otherwise, children do not develop a healthy sense of wonder and curiosity, and will not learn what they must in order to make their own way in the world. Teachers should avoid rebuking or punishing students for faulty reasoning, incorrect responses to questions, and so forth. Otherwise, students might stop trying to learn altogether. And employees who know they are being monitored closely for any sign of errant behavior are likely to be less productive, more resentful of their supervisors, and less loyal to their employers.

At the same time, some measure of constructive criticism and critique, and sometimes even punishment, is appropriate. Parents must not turn a blind eye to their child's behavior if it jeopardizes the child's physical safety or the safety of others. Teachers should not ignore behavior

that unduly disrupts the learning process; and of course teachers should correct and critique students' class work, homework and tests as needed to help the students learn from their mistakes and avoid repeating them. Finally, employers must not permit employee behavior that amounts to harassment or that otherwise undermines the overall productivity at the workplace. Acquiescence in these sorts of behaviors only serves to sanction them.

To sum up, the speaker's dual recommendation is too extreme. Both praise and criticism serve useful purposes in promoting a child's development, a student's education, and an employee's loyalty and productivity. Yet both must be appropriately and evenhandedly administered; otherwise, they might serve instead to defeat these purposes.

#### 36, 72

36 Governments should not fund any scientific research whose consequences are unclear.

I agree with the speaker's broad assertion that money spent on research is generally money well invested. However, the speaker unnecessarily extends this broad assertion to embrace research whose results are "controversial," while ignoring certain compelling reasons why some types of research might be unjustifiable. My points of contention with the speaker involves the fundamental objectives and nature of research, as discussed below. I concede that the speaker is on the correct philosophical side of this issue. After all, research is the exploration of the unknown for true answers to our questions, and for lasting solutions to our enduring problems. Research is also the chief means by which we humans attempt to satisfy our insatiable appetite for knowledge, and our craving to understand ourselves and the world around us. Yet, in the very notion of research also lies my first point of contention with the speaker, who illogically presumes that we can know the results of research before we invest in it. To the contrary, if research is to be of any value it must explore uncharted and unpredictable territory. In fact, query whether research whose benefits are immediate and predictable can break any new ground, or whether it can be considered "research" at all.

While we must invest in research irrespective of whether the results might be controversial, at the same time we should be circumspect about research whose objectives are too vague and whose potential benefits are too speculative. After all, expensive research always carries significant opportunity costs--in terms of how the money might be spent toward addressing society's more immediate problems that do not require research. One apt illustration of this point involves the so-called "Star Wars" defense initiative, championed by the Reagan administration during the 1980s. In retrospect, this initiative was ill-conceived and largely a waste of taxpayer dollars; and few would dispute that the exorbitant amount of money devoted to the initiative could have gone a long way toward addressing pressing social problems of the day--by establishing after-school programs for delinquent latchkey kids, by enhancing AIDS awareness and education, and so forth. As it turns out, at the end of the Star Wars debacle we were left with rampant gang violence, an AIDS epidemic, and an unprecedented federal budget deficit.

The speaker's assertion is troubling in two other aspects as well. First, no amount of

research can completely solve the enduring problem of war, poverty, and violence, for the reason that they stem from certain aspects of human nature--such as aggression and greed.

Although human genome research might eventually enable us to engineer away those undesirable aspects of our nature, in the meantime it is up to our economists, diplomats, social reformers, and jurists--not our research laboratories--to mitigate these problems. Secondly, for every new research breakthrough that helps reduce human suffering is another that serves primarily to add to that suffering. For example, while some might argue that physics researchers who harnessed the power of the atom have provided us with an alternative source of energy and invaluable "peace-keepers," this argument flies in the face of the hundreds of thousands of innocent people murdered and maimed by atomic blasts, and by nuclear meltdowns. And, in fulfilling the promise of "better living through chemistry" research has given us chemical weapons for human slaughter. In short, so-called "advances" that scientific research has brought about often amount to net losses for humanity.

In sum, the speaker's assertion that we should invest in research whose results are "controversial" begs the question, because we cannot know whether research will turn out controversial until we've invested in it. As for the speaker's broader assertion, I agree that money spent on research is generally a sound investment because it is an investment in the advancement of human knowledge and in human imagination and spirit. Nevertheless, when we do research purely for its own sake without aim or clear purpose--we risk squandering resources which could have been applied to relieve the immediate suffering of our dispirited, disadvantaged, and disenfranchised members of society. In the final analysis, given finite economic resources we are forced to strike a balance in how we allocate those resources among competing societal objectives.

#### 38

38 It is primarily through our identification with social groups that we define ourselves.

I strongly agree that we define ourselves primarily through our identification with social groups, as the speaker asserts. Admittedly, at certain stages of life people often appear to define themselves in other terms. Yet, in my view, during these stages the fundamental need to define one's self through association with social groups is merely masked or suspended. Any developmental psychologist would agree that socialization with other children plays a critical role in any child's understanding and psychological development of self. At the day-care center or in the kindergarten class young children quickly learn that they want to play with the same toys at the same time or in the same way as some other children. They come to understand generally what they share in common with certain of their peers---m terms of appearance, behavior, likes and dislikes--and what they do not share in common with other peers or with older students and adults. In other words, these children begin to recognize that their identity inextricably involves their kinship with certain peers and alienation from other people.

As children progress to the social world of the playground and other after-school venues, their earlier recognition that they relate more closely to some people than to others evolves into

a desire to form well-defined social groups, and to set these groups apart from others. Girls begin to congregate apart from boys; clubs and cliques are quickly formed--often with exclusive rituals, codes, and rules to further distinguish the group's members from other children. This apparent need to be a part of an exclusive group continues through high school, where students identify themselves in their yearbooks by the clubs to which they belonged. Even in college, students eagerly join clubs, fraternities, and sororities to establish their identity as members of social groups. In my observation children are not taught by adults to behave in these ways; thus this desire to identify oneself with an exclusive social group seems to spring from some innate psychological need to define one's self through one's personal associations. However, as young adults take on the responsibilities of partnering, parenting, and working, they appear to define themselves less by their social affiliations and more by their marital status, parental status, and occupation. The last of these criteria seems particularly important for many adults today. When two adults meet for the first time, beyond initial pleasantries the initial question almost invariably is "What do you do for a living?" Yet in my opinion this shift in focus from one's belonging to a social group to one's occupation is not a shift in how we prefer to define ourselves. Rather, it is born of economic necessity--we don't have the leisure time or financial independence to concern ourselves with purely social activities. I find quite telling the fact that when older people retire from the world of work an interest in identifying with social groups--whether they be bridge clubs, investment clubs, or country clubs--seems to reemerge. In short, humans seem possessed by an enduring need to be part of a distinct social group—a need that continues throughout life's journey.

In sum, I agree that people gain and maintain their sense of self primarily through their belonging to distinct social groups. Admittedly, there will always be loners who prefer not to belong, for whatever reasons; yet loners are the exception. Also, while many working adults might temporarily define themselves in terms of their work for practicality's sake, at bottom we humans are nothing if not social animals.

#### 41

41 The greatness of individuals can be decided only by those who live after them, not by their contemporaries.

Can a person's greatness be recognized only in retrospect, by those who live after the person, as the speaker maintains? In my view the speaker unfairly generalizes. In some areas, especially the arts, greatness is often recognizable in its nascent stages. However, in other areas, particularly the physical sciences, greatness must be tested over time before it can be confirmed. In still other areas, such as business, the incubation period for greatness varies from case to case. we do not require a rear-view mirror to recognize artistic greatness—whether in music, visual arts, or literature. The reason for this is simple: art can be judged at face value. There's nothing to be later proved or disproved, affirmed or discredited, or even improved upon or refined by further knowledge or newer technology. History is replete with examples of artistic greatness immediately recognized, then later confirmed. Through his patronage, the Pope recognized

Michelangelo's artistic greatness, while the monarchs of Europe immediately recognized Mozart's greatness by granting him their most generous commissions. Mark Twain became a best-selling author and household name even during his lifetime. And the leaders of the modernist school of architecture marveled even as Frank Lloyd Wright was elevating their notions about architecture to new aesthetic heights.

By contrast, in the sciences it is difficult to identify greatness without the benefit of historical perspective. Any scientific theory might be disproved tomorrow, thereby demoting the theorist's contribution to the status of historical footnote. Or the theory might withstand centuries of rigorous scientific scrutiny. In any event, a theory may or may not serve as a springboard for later advances in theoretical science. A current example involves the ultimate significance of two opposing theories of physics: wave theory and quantum theory. Some theorists now claim that a new so-called "string" theory reconciles the two opposing theories--at least mathematically. Yet "strings" have yet to be confirmed empirically. Only time will tell whether string theory indeed provides the unifying laws that all matter in the universe obeys. In short, the significance of contributions made by theoretical scientists cannot be judged by their contemporaries--only by scientists who follow them.

In the realm of business, in some cases great achievement is recognizable immediately, while in other cases it is not. Consider on the one hand Henry Ford's assembly-line approach to manufacturing affordable cars for the masses. Even Ford could not have predicted the impact his innovations would have on the American economy and on the modern world. On the other hand, by any measure, Microsoft's Bill Gates has made an even greater contribution than Ford; after all, Gates is largely responsible for lifting American technology out of the doldrums during the 1970s to restore America to the status of economic powerhouse and technological leader of the world. And this contribution is readily recognizable now--as it is happening. Of course, the DOS and Windows operating systems, and even Gates' monopoly, might eventually become historical relics. Yet his greatness is already secured.

In sum, the speaker overlooks many great individuals, particularly in the arts and in business, whose achievements were broadly recognized as great even during their own time. Nevertheless, other great achievements, especially scientific ones, cannot be confirmed as such without the benefit of historical perspective.

#### **53**

53 If a goal is worthy, then any means taken to attain it are justifiable.

The speaker asserts that if a goal is worthy then any means of attaining that goal is justifiable. In my view this extreme position misses the point entirely. Whether certain means are justifiable in reaching a goal must be determined on a case-by-case basis, by weighing the benefits of attaining the goal against the costs, or harm, that might accrue along the way. This applies equally to individual goals and to societal goals.

Consider the goal of completing a marathon running race. If I need to reduce my working hours to train for the race, thereby jeopardizing my job, or if I run a high risk of incurring a

permanent injury by training enough to prepare adequately for the event, then perhaps my goal is not worth attaining. Yet if I am a physically challenged person with the goal of completing a highly-publicized marathon, risking financial hardship or long-term injury might be worthwhile, not only for my own personal satisfaction but also for the inspiration that attaining the goal would provide many others. Or consider the goal of providing basic food and shelter for an innocent child. Anyone would agree that this goal is highly worthy--considered apart from the means used to achieve it. But what if those means involve stealing from others? Or what if they involve employing the child in a sweatshop at the expense of educating the child? Clearly, determining the worthiness of such goals requires that we confront moral dilemmas, which we each solve individually—based on our own conscience, value system, and notions of fairness and equity. On a societal level we determine the worthiness of our goals in much the same way—by weighing competing interests. For instance, any thoughtful person would agree that reducing air and water pollution is a worthy societal goal; dean air and water reduce the burden on our health-care resources and improves the quality of life for everyone in society. Yet to attain this goal would we be justified in forcing entire industries out of business, thereby running the risk of economic paralysis and widespread unemployment?

Or consider America's intervention in Iraq's invasion of Kuwait. Did our dual interest in a continuing flow of oil to the West and in deterring a potential threat against the security of the world justify our committing resources that could have been used instead for domestic social-welfare programs--or a myriad of other productive purposes? Both issues underscore the fact that the worthiness of a societal goal cannot be considered apart from the means and adverse consequences of attaining that goal.

In sum, the speaker begs the question. The worthiness of any goal, whether it be personal or societal, can be determined only by weighing the benefits of achieving the goal against its costs--to us as well as others.

#### 57

57 The main benefit of the study of history is to dispel the illusion that people living now are significantly different from people who lived in earlier times.

I concede that basic human nature has not changed over recorded history, and that coming to appreciate this fact by studying history can be beneficial in how we live as a society. However, I disagree with the statement in two respects. First, in other ways there are marked differences between people of different time periods, and learning about those differences can be just as beneficial. Second, studying history carries other equally important benefits as well.

I agree with the statement insofar as through the earnest study of human history we learn that basic human nature---our desires and motives, as well as our fears and foibles---has remained constant over recorded time. And through this realization we can benefit as a society in dealing more effectively with our enduring social problems. History teaches us, for example, that it is a mistake to attempt to legislate morality, because humans by nature resist having their moral choices forced upon them. History also teaches us that our major social ills are here to stay,

because they spring from human nature. For instance, crime and violence have troubled almost every society; all manner of reform, prevention, and punishment have been tried with only partial success. Today, the trend appears to be away from reform toward a "tough-on-crime" approach, to no avail.

However beneficial it might be to appreciate the unchanging nature of humankind, it is equally beneficial to understand and appreciate significant differences between peoples of different time periods----in terms of cultural mores, customs, values, and ideals. For example, the ways in which societies have treated women, ethnic minorities, animals, and the environment have evolved over the course of human history. Society's attitudes toward artistic expression, literature, and scientific and intellectual inquiry are also in a continual state of evolution. And, perhaps the most significant sort of cultural evolution involves spiritual beliefs, which have always spun themselves out, albeit uneasily, through clashes between established traditions and more enlightened viewpoints. A heightened awareness of all these aspects of cultural evolution help us formulate informed, reflective, and enlightened values and ideals for ourselves; and our society dearly benefits as a result.

Another problem with the statement is that it undervalues other, equally important benefits of studying history. Learning about the courage and tenacity of history's great explorers, leaders, and other achievers inspires us to similar accomplishments, or at least to face own fears as we travel through life. Learning about the mistakes of past societies helps us avoid repeating them. For instance, the world is slowly coming to learn by studying history that political states whose authority stems from suppression of individual freedoms invariably fall of their own oppressive weight. And, learning about one's cultural heritage, or roots, fosters a healthy sense of self and cultivates an interest in preserving art, literature, and other cultural artifacts--all of which serve to enrich society.

To sum up, history informs us that basic human nature has not changed, and this history lesson can help us understand and be more tolerant of one another, as well as develop compassionate responses to the problems and failings of others. Yet, history has other lessons to offer us as well. It helps us formulate informed values and ideals for ourselves, inspires us to great achievements, points out mistakes to avoid, and helps us appreciate our cultural heritage.

#### 49、76、118

49 Claim: We can usually learn much more from people whose views we share than from those whose views contradict our own.

Reason: Disagreement can cause stress and inhibit learning.

Do we learn more from people whose ideas we share in common than from those whose ideas contradict ours? The speaker claims so, for the reason that disagreement can cause stress and inhibit learning. I concede that undue discord can impede learning. Otherwise, in my view we learn far more from discourse and debate with those whose ideas we oppose than from people whose ideas are in accord with our own.

Admittedly, under some circumstances disagreement with others can be counterproductive

to learning. For supporting examples one need look no further than a television set. On today's typical television or radio talk show, disagreement usually manifests itself in meaningless rhetorical bouts and shouting matches, during which opponents vie to have their own message heard, but have little interest either in finding common ground with or in acknowledging the merits of the opponent's viewpoint. Understandably, neither the combatants nor the viewers learn anything meaningful. In fact, these battles only serve to reinforce the predispositions and biases of all concerned. The end result is that learning is impeded. Disagreement can also inhibit learning when two opponents disagree on fundamental assumptions needed for meaningful discourse and debate. For example, a student of paleontology learns little about the evolution of an animal species under current study by debating with an individual whose religious belief system precludes the possibility of evolution to begin with. And, economics and finance students learn little about the dynamics of a laissez-faire system by debating with a socialist whose view is that a centrv2ized power should control all economic activity.

Aside from the foregoing two provisos, however, I fundamentally disagree with the speaker's claim. Assuming common ground between two rational and reasonable opponents willing to debate on intellectual merits, both opponents stand to gain much from that debate. Indeed it is primarily through such debate that human knowledge advances, whether at the personal, community, or global level.

At the personal level, by listening to their parents' rationale for their seemingly oppressive rules and policies teenagers can learn how certain behaviors naturally carry certain undesirable consequences. At the same time, by listening to their teenagers concerns about autonomy and about peer pressures parents can learn the valuable lesson that effective parenting and control are two different things. At the community level, through dispassionate dialogue an environmental activist can come to understand the legitimate economic concerns of those whose jobs depend on the continued profitable operation of a factory. Conversely, the latter might stand to learn much about the potential public health price to be paid by ensuring job growth and a low unemployment rate. Finally, at the global level, two nations with opposing political or economic interests can reach mutually beneficial agreements by striving to understand the other's legitimate concerns for its national security, its political sovereignty, the stability of its economy and currency, and so forth.

In sum, unless two opponents in a debate are each willing to play on the same field and by the same rules, I concede that disagreement can impede learning. Otherwise, reasoned discourse and debate between people with opposing viewpoints is the very foundation upon which human knowledge advances. Accordingly, on balance the speaker is fundamentally correct.

#### 63

63 There is little justification for society to make extraordinary efforts—especially at a great cost in money and jobs—to save endangered animal or plant species.

What are the limits of our duty to save endangered species from extinction? The statement

raises a variety of issues about morality, conscience, self-preservation, and economics. On balance, however, I fundamentally agree with the notion that humans need not make "extraordinary" efforts--at the expense of money and jobs--to ensure the preservation of any endangered species.

As I see it, there are three fundamental arguments for imposing on ourselves at least some responsibility to preserve endangered species. The first has to do culpability. According to this argument, to the extent that endangerment is the result of anthropogenic events such as dear-cutting of forests or polluting of lakes and streams, we humans have a duty to take affirmative measures to protect the species whose survival we've placed in jeopardy.

The second argument has to do with capability. This argument disregards the extent to which we humans might have contributed to the endangerment of a species. Instead, the argument goes, if we are aware of the danger, know what steps are needed to prevent extinction, and can take those steps, then we are morally obligated to help prevent extinction. This argument would place a very high affirmative duty on humans to protect endangered species.

The third argument is an appeal to self-preservation. The animal kingdom is an intricate matrix of interdependent relationships, in which each species depends on many others for its survival. Severing certain relationships, such as that between a predator and its natural prey, can set into motion a series of extinctions that ultimately might endanger our own survival as a species. While this claim might sound far-fetched to some, environmental experts assure us that in the long run it is very real possibility.

On the other hand are two compelling arguments against placing a duty on humans to protect endangered species. The first is essentially the Darwinian argument that extinction results from the inexorable process of so-called "natural selection" in which stronger species survive while weaker ones do not. Moreover, we humans are not exempt from the process. Accordingly, if we see fit to eradicate other species in order to facilitate our survival, then so be it. We are only behaving as animal must, Darwin would no doubt assert.

The second argument, and the one that I find most compelling, is an appeal to logic over emotion. It is a scientific fact that thousands of animal species become extinct every year. Many such extinctions are due to natural forces, while others are due to anthropogenic factors. In any event, it is far beyond our ability to save them all. By what standard, then, should we decide which species are worth saving and which ones are not? In my observation, we tend to favor animals with human-like physical characteristics and behaviors. This preference is understandable; after all, dolphins are far more endearing than bugs. But there is no logical justification for such a standard. Accordingly, what makes more sense is to decide based on our own economic self-interest. In other words, the more money and jobs it would cost to save a certain species, the lower priority we should place on doing do.

In sum, the issue of endangered-species protection is a complex one, requiring subjective judgments about moral duty and the comparative value of various life forms. Thus, there are no easy or certain answers. Yet it is for this very reason I agree that economic self-interest should take precedence over vague notions about moral duty when it comes to saving endangered species. In the final analysis, at a point when it becomes critical for our own survival as a species to save certain others, then we humans will do so if we are fit – in accordance with Darwin's observed process of natural selection.

#### 64

64 The human mind will always be superior to machines because machines are only tools of human minds.

This statement actually consists of a series of three related claims: (1) machines are tools of human minds; (2) human minds will always be superior to machines; and (3) it is because machines are human tools that human minds will always be superior to machines. While I concede the first claim, whether I agree with the other two claims depends partly on how one defines "superiority," and partly on how willing one is to humble oneself to the unknown future scenarios.

The statement is clearly accurate insofar as machines are tools of human minds. After all, would any machine even exist unless a human being invented it? Of course not. Moreover, I would be hard-pressed to think of any machine that cannot be described as a tool. Even machines designed to entertain or amuse us--for example, toy robots, cars and video games, and novelty items--are in fact tools, which their inventors and promoters use for engaging in commerce and the business of entertainment and amusement. And, the claim that a machine can be an end in itself, without purpose or utilitarian function for humans whatsoever, is dubious at best, since I cannot conjure up even a single example of any such machine. Thus when we develop any sort of machine we always have some sort of end in mind a purpose for that machine.

As for the statement's second claim, in certain respects machines are superior. We have devised machines that perform number-crunching and other rote cerebral tasks with greater accuracy and speed than human minds ever could. In fact, it is because we can devise machines that are superior in these respects that we devise them--as our tools--to begin with. However, if one defines superiority not in terms of competence in per-forming rote tasks but rather in other ways, human minds are superior. Machines have no capacity for independent thought, for making judgments based on normative considerations, or for developing emotional responses to intellectual problems.

Up until now, the notion of human-made machines that develop the ability to think on their own, and to develop so-called "emotional intelligence," has been pure fiction. Besides, even in fiction we humans ultimately prevail over such machines--as in the cases of Frankenstein's monster and Hal, the computer in 2001: A Space Odyssey. Yet it seems presumptuous to assert with confidence that humans will always maintain their superior status over their machines. Recent advances in biotechnology, particularly in the area of human genome research, suggest that within the 21st Century we'll witness machines that can learn to think on their own, to repair and nurture themselves, to experience visceral sensations, and so forth. In other words, machines will soon exhibit the traits to which we humans attribute our own superiority.

In sum, because we devise machines in order that they may serve us, it is fair to characterize machines as "tools of human minds." And insofar as humans have the unique capacity for independent thought, subjective judgment, and emotional response, it also seems fair to claim superiority over our machines. Besides, should we ever become so clever a species

as to devise machines that can truly think for themselves and look out for their own well-being, then query whether these machines of the future would be "machines" anymore.

#### **65**

65 Every individual in a society has a responsibility to obey just laws and to disobey and resist unjust laws.

According to this statement, each person has a duty to not only obey just laws but also disobey unjust ones. In my view this statement is too extreme, in two respects. First, it wrongly categorizes any law as either just or unjust; and secondly, it recommends an ineffective and potentially harmful means of legal reform.

First, whether a law is just or unjust is rarely a straightforward issue. The fairness of any law depends on one's personal value system. This is especially true when it comes to personal freedoms. Consider, for example, the controversial issue of abortion. Individuals with particular religious beliefs tend to view laws allowing mothers an abortion choice as unjust, while individuals with other value systems might view such laws as just.

The fairness of a law also depends on one's personal interest, or stake, in the legal issue at hand. After all, in a democratic society the chief function of laws is to strike a balance among competing interests. Consider, for example, a law that regulates the toxic effluents a certain factory can emit into a nearby river. Such laws are designed chiefly to protect public health. But complying with the regulation might be costly for the company; the factory might be forced to lay off employees or shut down altogether, or increase the price of its products to compensate for the cost of compliance. At stake are the respective interests of the company's owners, employees, and customers, as well as the opposing interests of the region's residents whose health and safety are impacted. In short, the fairness of the law is subjective, depending largely on how one's personal interests are affected by it.

The second fundamental problem with the statement is that disobeying unjust laws often has the opposite effect of what was intended or hoped for. Most anyone would argue, for instance, that our federal system of income taxation is unfair in one respect or another. Yet the end result of widespread disobedience, in this case tax evasion, is to perpetuate the system. Free-riders only compel the government to maintain tax rates at high levels in order to ensure adequate revenue for the various programs in its budget.

Yet another fundamental problem with the statement is that by justifying a violation of one sort of law we find ourselves on a slippery slope toward sanctioning all types of illegal behavior, including egregious criminal conduct. Returning to the abortion example mentioned above, a person strongly opposed to the freedom-of-choice position might maintain that the illegal blocking of access to an abortion clinic amounts to justifiable disobedience. However, it is a precariously short leap from this sort of civil disobedience to physical confrontations with clinic workers, then to the infliction of property damage, then to the bombing of the clinic and potential murder.

In sum, because the inherent function of our laws is to balance competing interests,

reasonable people with different priorities will always disagree about the fairness of specific laws. Accordingly, radical action such as resistance or disobedience is rarely justified merely by one's subjective viewpoint or personal interests. And in any event, disobedience is never justifiable when the legal rights or safety of innocent people are jeopardized as a result.

#### 69

69 Some people believe it is often necessary, even desirable, for political leaders to withhold information from the public. Others believe that the public has a right to be fully informed.

I agree with the speaker that it is sometimes necessary, and even desirable, for political leaders to withhold information from the public. A contrary view would reveal a naiveté about the inherent nature of public politics, and about the sorts of compromises on the part of well-intentioned political leaders necessary in order to further the public's ultimate interests. Nevertheless, we must not allow our political leaders undue freedom to with-hold information, otherwise, we risk sanctioning demagoguery and undermining the philosophical underpinnings of any democratic society.

One reason for my fundamental agreement with the speaker is that in order to gain the opportunity for effective public leadership, a would-be leader must first gain and maintain political power. In the game of politics, complete forthrightness is a sign of vulnerability and naiveté, neither of which earn a politician respect among his or her opponents, and which those opponents will use to every advantage to defeat the politician. In my observation some measure of pandering to the electorate is necessary to gain and maintain political leadership. For example, were all politicians to fully disclose every personal foibles, character flaw, and detail concerning personal life, few honest politicians would ever by elected. While this view might seem cynical, personal scandals have in fact proven the undoing of many a political career; thus I think this view is realistic.

Another reason why I essentially agree with the speaker is that fully disclosing to the public certain types of information would threaten public safety and perhaps even national security. For example, if the President were to disclose the government's strategies for thwarting specific plans of an international terrorist or a drug trafficker, those strategies would surely fail, and the public's health and safety would be compromised as a result. Withholding information might also be necessary to avoid public panic. While such cases are rare, they do occur occasionally. For example, during the first few hours of the new millennium the U.S. Pentagon's missile defense system experienced a Y2K- related malfunction. This fact was withheld from the public until later in the day, once the problem had been solved; and legitimately so, since immediate disclosure would have served no useful purpose and might even have resulted in mass hysteria. Having recognized that withholding information from the public is often necessary to serve the interests of that public, legitimate political leadership nevertheless requires forthrightness with the citizenry as to the leader's motives and agenda. History informs us that would-be leaders who lack such forthrightness are the same ones who seize and maintain power either by brute force or by demagoguery--that is, by deceiving and manipulating the citizenry.

Paragons such as Genghis Khan and Hitler, respectively, come immediately to mind. Any democratic society should of course abhor demagoguery, which operates against the democratic principle of government by the people. Consider also less egregious examples, such as President Nixon's withholding of information about his active role in the Watergate cover-up. His behavior demonstrated a concern for self- interest above the broader interests of the democratic system that granted his political authority in the first place.

In sum, the game of politics calls for a certain amount of disingenuousness and lack of forthrightness that we might otherwise characterize as dishonesty. And such behavior is a necessary means to the final objective of effective political leadership. Nevertheless, in any democracy a leader who relies chiefly on deception and secrecy to preserve that leadership, to advance a private agenda, or to conceal selfish motives, betrays the democracy-and ends up forfeiting the political game.

#### 74、133、134

74 Knowing about the past cannot help people to make important decisions today.

The speaker claims that since so much in today's world is new and complex the past provides little guidance for living in the present. I agree with this assertion insofar as history offers few foolproof panaceas for living today. However, I disagree with the speaker's claim that today's world is so unique that the past is irrelevant. One good example that supports my dual position is the way society has dealt with its pressing social problems over time.

Admittedly, history has helped us learn the appropriateness of addressing certain social issues, particularly moral ones, on a societal level. Attempts to legislate morality invariably fail, as illustrated by Prohibition in the 1930s and, more recently, failed federal legislation to regulate access to adult material via the Internet. We are slowly learning this lesson, as the recent trend toward legalization of marijuana for medicinal purposes and the recognition of equal rights for same-sex partners both demonstrate.

However, the only firm lesson from history about social ills is that they are here to stay. Crime and violence, for example, have troubled almost every society. All manner of reform, prevention, and punishment have been tried. Today, the trend appears to be away from reform toward a "tough-on-crime" approach. Is this because history makes clear that punishment is the most effective means of eliminating crime? No; rather, the trend merely reflects our current mores, attitudes, and political climate.

Another example involves how we deal with the mentally-iii segment of the population. History reveals that neither quarantine, treatment, nor accommodation solves the problem, only that each approach comes with its own trade-offs. Also undermining the assertion that history helps us to solve social problems is the fact that, despite the civil-rights efforts of Martin Luther King and his progenies, the cultural gap today between African-Americans and white Americans seems to be widening. It seems that racial prejudice is a timeless phenomenon.

To sum up, in terms of how to live together as a society I agree that studying the past is of some value; for example, it helps us appreciate the futility of legislating morality. However,

history's primary sociological lesson seems to be that today's social problems are as old as society itself, and that there are no panaceas or prescriptions for solving these problems---only alternate ways of coping with them.

#### 75

75 In this age of intensive media coverage, it is no longer possible for a society to regard any living man or woman as a hero.

In general, I agree with the assertion that intense media scrutiny nearly always serves to diminish the reputation of society's would-be heroes, for the chief reason that it seems to be the nature of media to look for ways to demean public figures whether heroic or not. Moreover, while in isolated cases our so-called heroes have vindicated themselves and restored their reputations diminished by the media, in my observation these are exceptional cases to the general rule that once slandered, the reputation of any public figure, hero or otherwise, is forever tarnished.

The chief reason why I generally agree with the statement has to do with the forces that motivate the media in the first place. The media generally consist of profit-seeking entities, whose chief objective is to maximize profits for their shareholders or other owners. Moreover, our corporate culture has sanctioned this objective by codifying it as a fiduciary obligation of any corporate executive. For better or worse, in our society media viewers, readers, and listeners find information about the misfortunes and misdeeds of others, especially heroic public figures, far more compelling than information about their virtues and accomplishments.

In short, we love a good scandal. One need look no further than the newsstand, local television news broadcast, or talk show to find ample evidence that this is the case. Thus in order to maximize profits the media are simply giving the public what they demand scrutiny of heroic public figures that serves to diminish their reputation.

A second reason why I fundamentally agree with the statement is that, again for better or worse, intense media scrutiny raises a presumption, at least in the public's collective mind, that their hero is guilty of some sort of character flaw or misdeed. This presumption is understandable. After all, I think any demographic study would show that the vast majority of people relying on mainstream media for their information lack the sort of critical-thinking skills and objectivity to see beyond what the media feeds them, and to render a fair and fully informed judgment about a public figure—heroic or otherwise.

A third reason for my agreement with the statement has to do with the longer-term fallout from intense media scrutiny and the presumption discussed above. Once tarnished as a result of intense media scrutiny, a person's reputation is forever besmirched, regardless of the merits or motives of the scrutinizers. Those who disagree with this seemingly cynical viewpoint might cite cases in which public figures whose reputations had been tarnished were ultimately vindicated. For example, certain celebrities have successfully challenged rag sheets such as the National Enquirer in the courts, winning large damage awards for libel. Yet in my observation these are exceptional cases; besides, a damage award is no indication that the public has expunged from

its collective memory a perception that the fallen hero is guilty of the alleged character flaw or peccadillo.

In sum, the statement is fundamentally correct. As long as the media are motivated by profit, and as long as the public at large demands stories that serve to discredit, diminish, and destroy reputations, the media will continue to harm whichever unfortunate individuals become their cynosures. And the opportunity for vindication is little consolation in a society that seems to thrive, and even feed, on watching heroes being knocked off their pedestals.

#### 80

80 Nations should suspend government funding for the arts when significant numbers of their citizens are hungry or unemployed.

The speaker asserts that using public resources to support the arts is unjustifiable in a society where some people go without food, jobs, and basic survival skills. It might be tempting to agree with the speaker on the basis that art is not a fundamental human need, and that government is not entirely trustworthy when it comes to its motives and methods. However, the speaker overlooks certain economic and other societal benefits that accrue when government assumes an active role in supporting the arts.

The implicit rationale behind the speaker's statement seems to be that cultural enrichment pales in importance compared to food, clothing, and shelter. That the latter needs are more fundamental is indisputable; after all, what starving person would prefer a good painting to even a bad meal? Accordingly, I concede that when it comes to the use of public resources it is entirely appropriate to assign a lower priority to the arts than to these other pressing social problems. Yet, to postpone public arts funding until we completely eliminate unemployment and hunger would be to postpone arts funding forever; any informed person who believes otherwise is envisioning a pure socialist state where the government provides for all of its citizens' needs—a vision which amounts to fantasy.

It might also be tempting to agree with the speaker on the basis that arts patronage is neither an appropriate nor a necessary function of government. This argument has considerable merit, in three respects. First, it seems ill-conceived to relegate decision and choices about arts funding to a handful of bureaucrats, who are likely to decide based on their own quirky notions about art, and whose decisions might be susceptible to influence-peddling.

Second, private charity and philanthropy appear to be alive and well today. For example, year after year the Public Broadcasting System is able to survive, and even thrive, on donations from private foundations and individuals. Third, government funding requires tax dollars from our pockets--leaving us with less disposable dollars with which to support the arts directly and more efficiently than any bureaucracy ever could.

On the other hand are two compelling arguments that public support for the arts is desirable, whether or not unemployment and hunger have been eliminated. One such argument is that by allocating public resources to the arts we actually help to solve these social problems. Consider Canada's film industry, which is heavily subsidized by the Canadian government, and

which provides countless jobs for film-industry workers as a result. The Canadian government also provides various incentives for American production companies to produce their movies in Canada. These incentives have sparked a boon for the Canadian economy, thereby stimulating job growth and wealth that can be applied toward education, job training, and social programs. The Canadian example is proof that public arts support can help solve the kinds of social problems with which the speaker is concerned.

A second argument against the speaker's position has to do with the function and ultimate objectives of art. Art serves to lift the human spirit and to put us more in touch with our feelings, foibles, and fate in short, with our own humanity. With a heightened sensitivity to the human condition, we become more others-oriented, less self-centered, more giving of ourselves. In other words, we become a more charitable society--more willing to give to those less fortunate than ourselves in the ways with which the speaker is concerned. The speaker might argue, of course, that we do a disservice to others when we lend a helping hand by enabling them to depend on us to survive. However, at the heart of this specious argument lies a certain coldness and lack of compassion that, in my view, any society should seek to discourage. Besides, the argument leads inexorably to certain political, philosophical, and moral issues that this brief essay cannot begin to address.

In the final analysis, the beneficiaries of public arts funding are not limited to the elitists who stroll through big-city museums and attend symphonies and gallery openings, as the speaker might have us believe. Public resources allocated to the arts create jobs for artists and others whose livelihood depends on a vibrant, rich culture--just the sort of culture that breeds charitable concern for the hungry, the helpless, and the hapless.

#### 87

87 Claim: Any piece of information referred to as a fact should be mistrusted, since it may well be proven false in the future.

Reason: Much of the information that people assume is factual actually turns out to be inaccurate.

The speaker contends that so-called "facts" often turn out to be false, and therefore that we should distrust whatever we are told is factual. Although the speaker overlooks certain circumstances in which undue skepticism might be counterproductive, and even harmful, on balance I agree that we should not passively accept whatever is passed off as fact; otherwise, human knowledge would never advance.

I turn first to so-called "scientific facts," by which I mean current prevailing notions about the nature of the physical universe that have withstood the test of rigorous scientific and logical scrutiny. The very notion of scientific progress is predicated on such scrutiny. Indeed the history of science is in large measure a history of challenges to so-called "scientific facts"--challenges which have paved the way for scientific progress. For example, in challenging the notion that the Earth was in a fixed position at the center of the universe, Copernicus paved for the way for the corroborating observations of Galileo a century later, and ultimately for Newton's principles of

gravity upon which all modern science depends. The staggering cumulative impact of Copernicus' rejection of what he had been told was true provides strong support for the speaker's advice when it comes to scientific facts.

Another example of the value of distrusting what we are told is scientific fact involves the debate over whether human behavioral traits are a function of internal physical forces ("nature")or of learning and environment ("nurture"). Throughout human history the prevailing view has shifted many times. The ancients assumed that our behavior was governed by the whims of the gods; in medieval times it became accepted fact that human behavior is dictated by bodily humours, or fluids; this "fact" later yielded to the notion that we are primarily products of our upbringing and environment. Now researchers are discovering that many behavioral traits are largely a function of the unique neurological structure of each individual's brain. Thus only by distrusting facts about human behavior can we advance in our scientific knowledge and, in turn, learn to deal more effectively with human behavioral issues in such fields as education, juvenile delinquency, criminal reform, and mental illness.

The value of skepticism about so-called "facts" is not limited to the physical sciences. When it comes to the social sciences we should always be skeptical about what is presented to us as historical fact. Textbooks can paint distorted pictures of historical events, and of their cause sand consequences. After all, history in the making is always viewed firsthand through the eyes of subjective witnesses, then recorded by fallible journalists with their own cultural biases and agendas, then interpreted by historians with limited, and often tainted, information. And when it comes to factual assumptions underlying theories in the social science, we should be even more distrusting and skeptical, because such assumptions inherently defy deductive proof, or disproof. Skepticism should extend to the law as well. While law students, lawyers, legislators, and jurists must learn to appreciate traditional legal doctrines and principles, at the same time they must continually question their correctness----m terms of their fairness and continuing relevance.

Admittedly, in some cases undue skepticism can be counterproductive, and even harmful. For instance, we must accept current notions about the constancy of gravity and other basic laws of physics; otherwise, we would live in continual fear that the world around us would literally come crashing down on us. Undue skepticism can also be psychologically unhealthy when distrust borders on paranoia. Finally, common sense informs me that young people should first develop a foundation of experiential knowledge before they are encouraged to think critically about what they are told is fact.

To sum up, a certain measure of distrust of so-called "facts" is the very stuff of which human knowledge and progress are fashioned, whether in the physical sciences, the social sciences, or the law. Therefore, with few exceptions I strongly agree that we should strive to look at facts through skeptical eyes.

#### 93

93 Unfortunately, in contemporary society, creating an appealing image has become more important than the reality or truth behind that image.

Has creating an image become more important in our society than the reality or truth behind the image? I agree that image has become a more central concern, at least where short-term business or political success is at stake. Nevertheless, I think that in the longer term image ultimately yields to substance and fact.

The important role of image is particularly evident in the business world. Consider, for example, today's automobile industry. American cars are becoming essentially identical to competing Japanese cars in nearly every mechanical and structural respect, as well as in price. Thus to compete effectively auto companies must now differentiate their products largely through image advertising, by conjuring up certain illusory benefits--such as machismo, status, sensibility, or fun. The increasing focus on image is also evident in the book-publishing business. Publishers are relying more and more on the power of their brands rather than the content of their books. Today mass-market books are supplanted within a year with products that are essential the same---except with fresh faces, rifles, and other promotional angles. I find quite telling the fact that today more and more book publishers are being acquired by large media companies. And the increasing importance of image is especially evident in the music industry, where originality, artistic interpretation, and technical proficiency have yielded almost entirely to sex appeal.

The growing significance of image is also evident in the political realm, particularly when it comes to presidential politics. Admittedly, by its very nature politicking has always emphasized rhetoric and appearances above substance and fact. Yet since the invention of the camera presidential politicians have become increasingly concerned about their image. For example, Teddy Roosevelt was very careful never to be photographed wearing a tennis outfit, for fear that such photographs would serve to undermine his rough-rider image that won him his only term in office. With the advent of television, image became even more central in presidential politics. After all, it was television that elected J.F.K. over Nixon. And our only two-term presidents in the television age were elected based largely on their image. Query whether Presidents Lincoln, Taft, or even F.D.R. would be elected today if pitted against the handsome leading man Reagan, or the suave and polirically correct Clinton. After all, Lincoln was homely, Taft was obese, and F.D.R. was crippled.

In the long term, however, the significance of image wanes considerably. The image of the Marlboro man ultimately gave way to the truth about the health hazards of cigarette smoking. Popular musical acts with nothing truly innovative to offer musically eventually disappear from the music scene. And anyone who frequents yard sales knows that today's best-selling books often become tomorrow's pulp. Even in politics, I think history has a knack for peeling away image to focus on real accomplishments. I think history will remember Teddy Roosevelt, for example, primarily for building the Panama Canal and for establishing our National Park System--and not for his rough-and-ready wardrobe.

In the final analysis, it seems that in every endeavor where success depends to some degree on persuasion, marketing, or salesmanship, image has indeed become the central concern of those who seek to persuade. And as our lives become busier, our attention spans briefer, and our choices among products and services greater, I expect this trend to continue unabated--for better or worse.

#### 105, 106, 126

105 Claim: Imagination is a more valuable asset than experience.

Reason: People who lack experience are free to imagine what is possible without the constraints of established habits and attitudes.

The speaker asserts that imagination is "sometimes" more valuable than experience because individuals who lack experience can more freely imagine possibilities for approaching tasks than those entrenched in established habits and attitudes. I fundamentally agree; however, as the speaker implies, it is important not to overstate the comparative value of imagination. Examples from the arts and the sciences aptly illustrate both the speaker's point and my caveat. One need only observe young children as they go about their daily lives to appreciate the role that pure imagination can play as an aid to accomplishing tasks. Young children, by virtue of their lack of experience, can provide insights and valuable approaches to adult problems. Recall the movie Big, in which a young boy magically transformed into an adult found himself in a high-power job as a marketing executive. His inexperience in the adult world of business allowed his youthful imagination free reign to contribute creative—and successful ideas that none of his adult colleagues, set in their ways of thinking about how businesses go about maximizing profits, ever would have considered. Admittedly, Big was a fictional account; yet, I think it accurately portrays the extent to which adults lack the kind of imagination that only inexperience can bring to solving many adult problems.

The speaker's contention also finds ample empirical support in certain forms of artistic accomplishment and scientific invention. History is replete with evidence that our most gifted musical composers are young, relatively inexperienced, individuals. Notables ranging from Mozart to McCartney come immediately to mind. Similarly, the wide-eyed wonder of inexperience seems to spur scientific innovation. Consider the science fiction writer Jules Veme, who through pure imagination devised highly specific methods and means for transporting humans to outer space. What makes his imaginings so remarkable is that the actual methods and means for space flight, which engineers settled on through the experience of extensive research and trial-and-error, turned out to be essentially the same ones Verne had imagined nearly a century earlier!

Of course, there are many notable exceptions to the rule that imagination unfettered by experience breeds remarkable insights and accomplishments. Duke Ellington, perhaps jazz music's most prolific composers, continued to create new compositions until late in life. Thomas Edition, who registered far more patents with the U.S. patent office than any other person, continued to invent until a very old age. Yet, these are exceptions to the general pattern. Moreover, the later accomplishments of individuals such as these tend to build on earlier ones, and therefore are not as truly inspired as the earlier ones, which sprung from imagination less fettered by life experience.

On the other hand, it is important not to take this assertion about artistic and scientific accomplishment too far. Students of the arts, for instance, must learn theories and techniques, which they then apply to their craft whether music performance, dance, or acting. And, creative writing requires the cognitive ability to understand how language is used and how to

communicate ideas. Besides, creative ability is itself partly a function of intellect; that is, creative expression is a marriage of one's cognitive abilities and the expression of one's feelings and emotions. In literature, for example, a rich life experience from which to draw ideas is just as crucial to great achievement as imagination. For example, many critics laud Mark Twain's autobiography, which he wrote on his death bed, as his most inspired work. And, while the direction and goals of scientific research rely on the imaginations of key individuals, most scientific discoveries and inventions come about not by sudden epiphanies of youthful star-gazers but rather by years and years of trial-and-error in corporate research laboratories.

In sum, imagination can serve as an important catalyst for artistic creativity and scientific invention. Yet, experience can also play a key role; in fact, in literature and in science it can play just as key a role as the sort of imagination that inexperience breeds.

#### 119

119 When old buildings stand on ground that modern planners feel could be better used for modern purposes, modern development should be given precedence over the preservation of historic buildings.

The speaker asserts that wherever a practical, utilitarian need for new buildings arises this need should take precedence over our conflicting interest in preserving historic buildings as are cord of our past. In my view, however, which interest should take precedence should be determined on a case-by-case basis--and should account not only for practical and historic considerations but also aesthetic ones.

In determining whether to raze an older building, planners should of course consider the community's current and anticipated utilitarian needs. For example, if an additional hospital is needed to adequately serve the health-care needs of a fast-growing community, this compelling interest might very well outweigh any interest in preserving a historic building that sits on the proposed site. Or if additional parking is needed to ensure the economic survival of a city's downtown district, this interest might take precedence over the historic value of an old structure that stands in the way of a parking structure. On the other hand, if the need is mainly for more office space, in some cases an architecturally appropriate add-on or annex to an older building might serve just as well as razing the old building to make way for a new one. Of course, an expensive retrofit might not be worthwhile if no amount of retrofitting would meet the need. Competing with a community's utilitarian needs is an interest preserving the historical record.

Again, the weight of this interest should be determined on a case-by-case basis. Perhaps an older building uniquely represents a bygone era, or once played a central role in the city's history as a municipal structure. Or perhaps the building once served as the home of a founding family or other significant historical figure, or as the location of an important historical event. Any of these scenarios might justify saving the building at the expense of the practical needs of the community. On the other hand, if several older buildings represent the same historical era just as effectively, or if the building's history is an unremarkable one, then the historic value of the building might pale in comparison to the value of a new structure that meets a compelling

practical need.

Also competing with a community's utilitarian needs is the aesthetic and architectural value of the building itself--apart from historical events with which it might be associated. A building might be one of only a few that represents a certain architectural style. Or it might be especially beautiful, perhaps as a result of the craftsmanship and materials employed in its construction--which might be cost-prohibitive to replicate today. Even retrofitting the building to accommodate current needs might undermine its aesthetic as well as historic value, by altering its appearance and architectural integrity. Of course it is difficult to quantify aesthetic value and weigh it against utilitarian considerations. Yet planners should strive to account for aesthetic value nonetheless.

In sum, whether to raze an older building in order to construct a new one should never be determined indiscriminately. Instead, planners should make such decisions on a case-by-case basis, weighing the community's practical needs against the building's historic and aesthetic value.

#### 123

123 The best way for a society to prepare its young people for leadership in government, industry, or other fields is by instilling in them a sense of cooperation, not competition.

Which is a better way to prepare young people for leadership: developing in them a spirit of competitiveness or one of cooperation? The speaker favors the latter approach, even though some leaders attribute their success to their keenly developed competitive spirit. I tend to agree with the speaker, for reasons having to do with our increasingly global society, and with the true keys to effective leadership.

The chief reason why we should stress cooperation in nurturing young people today is that, as tomorrow's leaders, they will face pressing societal problems that simply cannot be solved apart from cooperative international efforts. For example, all nations will need to cooperate in an effort to disarm themselves of weapons of mass destruction; to reduce harmful emissions which destroy ozone and warm the Earth to dangerous levels; to reduce consumption of the Earth's finite natural resources; and to cure and prevent diseases before they become global epidemics. Otherwise, we all risk self-destruction. In short, global peace, economic stability, and survival of the species provide powerful reasons for developing educational paradigms that stress cooperation over competition.

A second compelling reason for instilling in young people a sense of cooperation over competition is that effective leadership depends less on the latter than the former. A leader should show that he or she values the input of subordinates--for example, by involving them indecisions about matters in which they have a direct stake. Otherwise, subordinates might grow to resent their leader, and become unwilling to devote themselves wholeheartedly to the leader's mission. In extreme cases they might even sabotage that mission, or even take their useful ideas to competitors. And after all, without other people worth leading a person cannot be a leader let alone an effective one.

A third reason why instilling a sense of cooperation is to be preferred over instilling a sense of competition is that the latter serves to narrow a leader's focus on thwarting the efforts of competitors. With such tunnel vision it is difficult to develop other, more creative means of attaining organizational objectives. Moreover, such means often involve synergistic solutions that call for alliances, partnerships, and other cooperative efforts with would-be competitors. Those who would oppose the speaker might point out that a thriving economy depends on a freely competitive business environment, which ensures that consumers obtain high-quality goods and services at low prices. Thus key leadership positions, especially in business, inherently call for a certain tenacity and competitive spirit. And, a competitive spirit seems especially critical in today's hyper-competitive technology-driven economy, where any leader desperate to keep pace with ever-changing business and technological paradigms soon fails by the wayside. However, a leader's effectiveness as a competitor is not necessarily inconsistent with his or her ability to cooperate with subordinates or with competitors, as noted above.

In sum, if we were to take the speaker's advice too far we would risk becoming a world without leaders, who are bred of a competitive spirit. We would also risk the key benefits of a free-market economy. Nevertheless, on balance I agree that it is more important to instill in young people a sense of cooperation than one of competition. The speaker's preference properly reflects the growing role of cooperative alliances and efforts in solving the world's most pressing problems. After all, in a world in which our very survival as a species depends on cooperation, the spirit of even healthy competition, no matter how healthy, is of little value to any of us.

#### **143**

143 No field of study can advance significantly unless it incorporates knowledge and experience from outside that field.

I strongly agree with the assertion that significant advances in knowledge require expertise from various fields. The world around us presents a seamless web of physical and anthropogenic forces, which interact in ways that can be understood only in the context of a variety of disciplines. Two examples that aptly illustrate this point involve the fields of cultural anthropology and astronomy.

Consider how a cultural anthropologist's knowledge about an ancient civilization is enhanced not only by the expertise of the archeologist--who unearths the evidence—but ultimately by the expertise of biochemists, geologists, linguists, and even astronomers. By analyzing the hair, nails, blood and bones of mummified bodies, biochemists and forensic scientists can determine the life expectancy, general well-being, and common causes of death of the population. These experts can also ensure the proper preservation of evidence found at the archeological site. A geologist can help identify the source and age of the materials used for tools, weapons, and structures--thereby enabling the anthropologist to extrapolate about the civilization's economy, trades and work habits, life styles, extent of travel and mobility, and so forth. Linguists are needed to interpret hieroglyphics and extrapolate from found fragments of writings. And an astronomer can help explain the layout of an ancient city as well as the design,

structure and position of monuments, tombs, and temples--since ancients often looked to the stars for guidance in building cities and structures.

An even more striking example of how expertise in diverse fields is needed to advance knowledge involves the area of astronomy and space exploration. Significant advancements in our knowledge of the solar system and the universe require increasingly keen tools for observation and measurement. Telescope technology and the measurement of celestial distances, masses, volumes, and so forth, are the domain of astrophysicists.

These advances also require increasingly sophisticated means of exploration. Manned and unmanned exploratory probes are designed by mechanical, electrical, and computer engineers. And to build and enable these technologies requires the acumen and savvy of business leaders, managers, and politicians. Even diplomats might play a role--insofar as major space projects require cooperative efforts among the world's scientists and governments. And ultimately it is our philosophers whose expertise helps provide meaning to what we learn about our universe.

In sum, no area of intellectual inquiry operates in a vacuum. Because the sciences are inextricably related, to advance our knowledge in any one area we must understand the interplay among them all. Moreover, it is our non-scientists who make possible the science, and who bring meaning to what we learn from it.

### Issue 范文精选

#### 4

4 Scandals are useful because they focus our attention on problems in ways that no speaker or reformer ever could.

Are scandals useful in calling our attention to important problems, as this statement suggests? I agree that in many cases scandals can serve to reveal larger problems that a community or society should address. On the other hand, scandals can sometimes distract us from more important societal issues.

On the one hand, scandals can sometimes serve to call our attention to pervasive social or political problems that we would otherwise neglect. Perhaps the paradigmatic modern example is the Watergate scandal. Early in that scandal it would have been tempting to dismiss it as involving one isolated incidence of underhanded campaign tactics. But, in retrospect the scandal forever increased the level of scrutiny and accountability to which our public officials are held, thereby working a significant and lasting benefit to our society. More recently, the Clinton-Gore fundraising scandal sparked a renewed call for campaign-finance reform. In fact the scandal might result in the passage of a congressional bill outlawing private campaign contributions altogether, thereby rendering presidential candidates far less susceptible to undue influence of special-interest groups. Our society would be the dear beneficiary of such reform. Surely, no public speaker or reformer could have called our nation's collective attention to the problem of

presidential misconduct unless these two scandals had surfaced.

On the other hand, scandals can sometimes serve chiefly to distract us from more pressing community or societal problems. At the community level, for example, several years ago the chancellor of a university located in my city was expelled from office for misusing university funds to renovate his posh personal residence. Every new development during the scandal became front-page news in the campus newspaper. But did this scandal serve any useful purpose? No. The scandal did not reveal any pervasive problem with university accounting practices. It did not result in any sort of useful system-wide reform. Rather, it was merely one incidence of petty misappropriation. Moreover, the scandal distracted the university community from far more important issues, such as affu'mative action and campus safety, which were relegated to the second page of the campus news paper during the scandal.

Even on a societal level, scandals can serve chiefly to distract us from more important matters. For example, time will tell whether the Clinton sex scandal will benefit our political, social, or legal system. Admittedly, the scandal did call our attention to certain issues of federal law. It sparked a debate about the powers and duties of legal prosecutors, under the Independent Counsel Act, vis-i-vis the chief executive while in and out of office. And the various court rulings about executive privilege and immunity WIU serve useful legal precedents for the furore. Even the impeachment proceedings xxhll no doubt provide useful procedural precedent at some future time. Yet on balance, it seems to me that the deleterious effects of the scandal in terms of the financial expense to taxpayers and the various harms to the many individuals caught up in the legal process---outweigh these benefits. More importantly, for more that a year the scandal served chiefly to distract us from our most pressing national and global problems, such as the Kosovo crisis, our social-security crisis, and health-care reform, to name just a few.

In sum, I agree that scandals often serve to flag important socio-political problems more effectively than any speaker or reformer can. However, whether a scandal works more benefit than harm to a community or society must be addressed on a case-by-case basis.

#### 6, 14, 96, 116

# 6 A nation should require all of its students to study the same national curriculum until they enter college.

The speaker would prefer a national curriculum for all children up until college instead of allowing schools in different regions the freedom to decide on their own curricula. I agree insofar as some common core curriculum would serve useful purposes for any nation. At the same time, however, individual states and communities should have some freedom to augment any such curriculum as they see fit; otherwise, a nation's educational system might defeat its own purposes in the long term.

A national core curriculum would be beneficial to a nation in a number of respects. First of all, by providing all children with fundamental skills and knowledge, a common core curriculum would help ensure that our children grow up to become reasonably informed, productive members of society. In addition, a common core curriculum would provide a predictable

foundation upon which college administrators and faculty could more easily build curricula and select course materials for freshmen that are neither below nor above their level of educational experience. Finally, a core curriculum would ensure that all school-children are taught core values upon which any democratic society depends to thrive, and even survive--values such as tolerance of others with different viewpoints, and respect for others.

However, a common curriculum that is also an exdusive one would pose certain problems, which might outweigh the benefits, noted above. First of all, on what basis would certain course work be included or excluded, and who would be the final decision- maker? In all likelihood these decisions would be in the hands of federal legislators and regulators, who are likely to have their own quirky notions of what should and should not be taught to children--notions that may or may not reflect those of most communities, schools, or parents. Besides, government officials are notoriously susceptible to influence-peddling by lobbyists who do not have the best interests of society's children in mind.

Secondly, an official, federally sanctioned curriculum would facilitate the dissemination of propaganda and other dogma which because of its biased and one-sided nature undermines the very purpose of true education: to enlighten. I can easily foresee the banning of certain text books, programs, and websites which provide information and perspectives that the government might wish to suppress--as some sort of threat to its authority and power. Although this scenario might seem far-fetched, these sorts of concerns are being raised already at the state level.

Thirdly, the inflexible nature of a uniform national curriculum would preclude the inclusion of programs, courses, and materials that are primarily of regional or local significance. For example, California requires children at certain grade levels to learn about the history of particular ethnic groups who make up the state's diverse population. A national curriculum might not allow for this feature, and California's youngsters would be worse off as a result of their ignorance about the traditions, values, and cultural contributions of all the people whose citizenship they share.

Finally, it seems to me that imposing a uniform national curriculum would serve to undermine the authority of parents over their own children, to even a greater extent than uniform state laws currently do. Admittedly, laws requiring parents to ensure that their children receive an education that meets certain minimum standards are well-justified, for the reasons mentioned earlier. However, when such standards are imposed by the state rather than at the community level parents are left with far less power to participate meaningfully in the decision-making process. This problem would only be exacerbated were these decisions left exclusively to federal regulators.

In the final analysis, homogenization of elementary and secondary education would amount to a double-edged sword. While it would serve as an insurance policy against a future populated with illiterates and ignoramuses, at the same time it might serve to obliterate cultural diversity and tradition. The optimal federal approach, in my view, is a balanced one that imposes a basic curriculum yet leaves the rest up to each state--or better yet, to each community.

#### 13, 46, 70, 102, 112, 140

# 13 Universities should require every student to take a variety of courses outside the student's field of study.

I fundamentally agree with the proposition that students must take courses outside their major field of study to become "truly educated." A contrary position would reflect a too narrow view of higher education and its proper objectives. Nevertheless, I would caution that extending the proposition too far might risk undermining those objectives.

The primary reason why I agree with the proposition is that "me" education amounts to far more than gaining the knowledge and ability to excel in one's major course of study and in one's professional career. True education also facilitates an understanding of one- self, and tolerance and respect for the viewpoints of others. Courses in psychology, sociology, and anthropology all serve these ends. "True" education also provides insight and perspective regarding one's place in society and in the physical and metaphysical worlds. Courses in political science, philosophy, theology, and even sciences such as astronomy and physics can help a student gain this insight and perspective. Finally, no student can be truly educated without having gained an aesthetic appreciation of the world around us--through course work in literature, the fine arts, and the performing arts.

Becoming truly educated also requires sufficient mastery of one academic area to permit a student to contribute meaningfully to society later in life. Yet, mastery of any specific area requires some knowledge about a variety of others. For example, a political-science student can fully understand that field only by understanding the various psychological, sociological, and historical forces that shape political ideology. An anthropologist cannot excel without understanding the social and political events that shape cultures, and without some knowledge of chemistry and geology for performing field work. Even computer engineering is intrinsically tied to other fields, even non-technical ones such as business, communications, and media.

Nevertheless, the call for a broad educational experience as the path to becoming truly educated comes with one important caveat. A student who merely dabbles in a hodgepodge of academic offerings, without special emphasis on any one, becomes a dilettante lacking enough knowledge or experience in any single area to come away with anything valuable to offer. Thus in the pursuit of true education students must be careful not to overextend themselves----or risk defeating an important objective of education.

In the final analysis, to become truly educated one must strike a proper balance in one's educational pursuits. Certainly, students should strive to excel in the specific requirements of their major course of study. However, they should complement those efforts by pursuing course work in a variety of other areas as well. By earnestly pursuing a broad education one gains the capacity not only to succeed in a career, but also to find purpose and meaning in that career as well as to understand and appreciate the world and its peoples. To gain these capacities is to become "truly educated."

#### **16**

16 Some people believe that in order to be effective, political leaders must yield to public opinion and abandon principle for the sake of compromise. Others believe that the most essential quality of an effective leader is the ability to remain consistently committed to particular principles and objectives.

Whether effective leadership requires that a leader consistently follow his or her principles and objectives is a complex issue--one that is tied up in the problem of defining effective leadership in the first place. In addressing the issue it is helpful to consider, in turn, three distinct forms of leadership: business, political, and social-spiritual.

In the business realm, effective leadership is generally defined, at least in our corporate culture, as that which achieves the goal of profit maximization for a firm's shareholders or other owners. Many disagree, however, that profit is the appropriate measure of a business leader's effectiveness. Some detractors claim, for example, that a truly effective business leader must also fulfill additional duties--for example, to do no intentional harm to their customers or to the society in which they operate. Other detractors go further--to impose on business leaders an affirmative obligation to yield to popular will, by protecting consumers, preserving the natural environment, promoting education, and otherwise taking steps to help alleviate society's problems.

Whether our most effective business leaders are the ones who remain consistently committed to maximizing profits or the ones who appease the general populace by contributing to popular social causes depends, of course, on one's own definition of business success. In my observation, as business leaders become subject to closer scrutiny by the media and by social activists, business leaders will maximize profits in the long term only by taking reasonable steps to minimize the social and environmental harm their businesses cause. Thus the two definitions merge, and the statement at issue is ultimately correct.

In the political realm the issue is no less complex. Definitions of effective political leadership are tied up in the means a leader uses to wield his or her power and to obtain that power in the first place. Consider history's most infamous tyrants and despots--such as Genghis Khaan, Stalin, Mao, and Hider. No historian would disagree that these individuals were remarkably effective leaders, and that each one remained consistently committed to his tyrannical objectives and Machiavellian principles. Ironically, it was stubborn commitment to objectives that ultimately defeated all except Khan. Thus in the short term stubborn adherence to one's objectives might serve a political leader's interest in preserving his or her power; yet in the long term such behavior invariably results in that leader's downfall if the principles are not in accord with those of the leader's would-be followers.

Finally, consider social-spiritual leadership. Few would disagree that through their ability to inspire others and lift the human spirit Mahatma Gandhi and Martin Luther King were eminently effective in leading others to effect social change through civil disobedience. It seems to me that this brand of leadership, in order to be effective, inherently requires that the leader remain steadfastly committed to principle. Why? It is commitment to principle that is the basis for this brand of leadership in the first place. For example, had Gandhi advocated civil disobedience yet

been persuaded by dose advisors that an occasional violent protest might be effective in gaining India's independence from Britain, no doubt the result would have been immediate forfeiture of that leadership. In short, social-spiritual leaders must not be hypocrites; otherwise, they will lose all credibility and effectiveness.

In sum, strict adherence to principles and objectives is a prerequisite for effective social-spiritual leadership--both in the short and long term. In contrast, political leadership wanes in the long term unless the leader ultimately yields to the will of the followers.

Finally, when it comes to business, leaders must strike a balance between the objective of profit maximization--the traditional measure of effectiveness--and yielding to certain broader obligations that society is now imposing on them.

#### 18

#### 18 The well-being of a society is enhanced when many of its people question authority.

The speaker asserts that when many people question authority society is better off. While I contend that certain forms of disobedience can be harmful to any society, I agree with the speaker otherwise. In fact, I would go further by contending that society's well-being depends on challenges to authority, and that when it comes to political and legal authority, these challenges must come from many people.

Admittedly, when many people question authority some societal harm might result, even if a social cause is worthy. Mass resistance to authority can escalate to violent protest and rioting, during which innocent people are hurt and their property damaged and destroyed. The fallout from the 1992 Los Angeles riots aptly illustrates this point. The "authority" which the rioters sought to challenge was that of the legal justice system which acquitted police officers in the beating of Rodney King. The means of challenging that authority amounted to flagrant disregard for criminal law on a mass scale--by way of looting, arson, and even deadly assault. This violent challenge to authority resulted in a financially crippled community and, more broadly, a turning back of the clock with respect to racial tensions across America.

While violence is rarely justifiable as a means of questioning authority, peaceful challenges to political and legal authority, by many people, are not only justifiable but actually necessary when it comes to enhancing and even preserving society's well-being. In particular, progress in human rights depends on popular dissension. It is not enough for a charismatic visionary like Gandhi or King to call for change in the name of justice and humanity; they must have the support of many people in order to effect change. Similarly, in a democracy citizens must respect timeless legal doctrines and principles, yet at the same time question the fairness and relevance of current laws. Otherwise, our laws would not evolve to reflect changing societal values. It is not enough for a handful of legislators to challenge the legal status quo; ultimately it is up to the electorate at large to call for change when change is needed for the well-being of society.

Questioning authority is also essential for advances in the sciences. Passive acceptance of prevailing principles quells innovation, invention, and discovery, all of which clearly benefit any society. In fact, the very notion of scientific progress is predicated on rigorous scientific

inquiry--in other words, questioning of authority. History is replete with scientific discoveries that posed challenges to political, religious, and scientific authority. For example, the theories of a sun-centered solar system, of humankind's evolution from other life forms, and of the rdativity of time and space, clearly flew in the face of "authoritative" scientific as well as religious doctrine of their time. Moreover, when it comes to science a successful challenge to authority need not come from a large number of people. The key contributions of a few individuals---like Copernicus, Kepler, Newton, Darwin, Einstein, and Hawking---often suffice.

Similarly, in the arts, people must challenge established styles and forms rather than imitate them; otherwise, no gemtinely new art would ever emerge, and society would be worse off. And again, it is not necessary that a large number of people pose such challenges; a few key individuals can have a profound impact. For instance, modern ballet owes much of what is new and exciting to George Ballanchine, who by way of his improvisational techniques posed a successful challenge to established traditions. And modern architecture arguably owes its existence to the founders of Germany's Bauhaus School of Architecture, which challenged certain "authoritative" notions about the proper objective, and resulting design, of public buildings.

To sum up, in general I agree that when many people question authority the well-being of society is enhanced. Indeed, advances in government and law depend on challenges to the status quo by many people. Nevertheless, to ensure a net benefit rather than harm, the means of such challenges must be peaceful ones.

#### 22, 122

22 Claim: The best way to understand the character of a society is to examine the character of the men and women that the society chooses as its heroes or its role models.

Reason: Heroes and role models reveal a society's highest ideals.

The speaker claims that the character of a society's heroes and heroines ('heroes' hereafter) reflects the character of that society. I tend to disagree. In my observation a society chooses as its heroes not people who mirror the society but rather people whose character society's members wish they could emulate but cannot--for want of character. Nevertheless, I concede that one particular type of hero----the sociopolitical hero--by definition mirrors the character of the society whose causes the hero champions.

First consider the sports hero, whom in my observation society chooses not merely by virtue of athletic prowess. Some accomplished athletes we consider heroes because they have overcome significant obstacles to achieve their goals. For example, Lance Arm-strong was not the first Tour de France cycling champion from the U.S.; yet he was the first to overcome a life-threatening illness to win the race. Other accomplished athletes we consider heroes because they give back to the society which lionize them. As Mohammed Ali fought not just for boxing rifles but also for racial equality, so baseball hero Mark McGuire fights now for disadvantaged children, while basketball hero Magic Johnson fights for AIDS research and awareness. Yet, do the character traits and resulting charitable efforts of sports heroes reflect similar traits and efforts among our society at large? No; they simply reveal that we admire these traits and efforts in

other people, and wish we could emulate them but for our own personal failings.

Next consider the military hero, who gains heroic stature by way of courage in battle, or by otherwise facing certain defeat and emerging victorious. Former presidential hopeful John McCain, whom even his political opponents laud as a war hero for having not only endured years of torture as a prisoner of war but also for continuing to serve his country afterwards. Do his patriotism and mettle reveal our society's true character? Certainly not. They reveal only that we admire his courage, fortitude, and strength.

On the other hand, consider a third type of hero: the champion of social causes who inspires and incites society to meaningful political and social change. Such luminaries as India's Mahatma Gandhi, America's Martin Luther King, South Africa's Nelson Mandela, and Poland's Lech Lawesa come immediately to mind. This unique brand of hero does reflect, and indeed must reflect, the character of the hero's society. After all, it is the function of the social champion to call attention to the character of society, which having viewed its reflection in the hero is incited to act bravely--in accordance with its collective character.

In sum, I agree with the speaker's claim only with respect to champions of society's social causes. Otherwise, what society deems heroic reflects instead a basic, and universal, human need for paragons--to whom we can refer as metaphors for the sorts of virtues that for lack of character we cannot ourselves reflect.

### 26

# 26 The luxuries and conveniences of contemporary life prevent people from developing into truly strong and independent individuals.

Do modern luxuries serve to undermine our true strength and independence as individuals? The speaker believes so, and I tend to agree. Consider the automobile, for example. Most people consider the automobile a necessity rather than a luxury; yet it is for this very reason that the automobile so aptly supports the speaker's point. To the extent that we depend on cars as crutches, they prevent us from becoming truly independent and strong in character as individuals.

Consider first the effect of the automobile on our independence as individuals. In some respects the automobile serves to enhance such independence. For example, cars make it possible for people in isolated and depressed areas without public transportation to become more independent by pursing gainful employment outside their communities. And teenagers discover that owning a car, or even borrowing one on occasion, affords them a needed sense of independence from their parents.

However, cars have diminished our independence in a number of more significant respects. We've grown dependent on our cars for commuting to work. We rely on them like crutches for short trips to the corner store, and for carting our children to and from school. Moreover, the car has become a means not only to our assorted physical destinations but also to the attainment of our socioeconomic goals, insofar as the automobile has become a symbol of status. In fact, in my observation many, if not most, working professionals willingly undermine their financial security

for the sake of being seen driving this year's new SUV or luxury sedan. In short, we've become slaves to the automobile.

Consider next the overall impact of the automobile on our strength as individuals, by which I mean strength of character, or mettle. I would be hard-pressed to list one way in which the automobile enhances one's strength of character. Driving a powerful SUV might afford a person a feeling and appearance of strength, or machismo. But this feeling has nothing to do with a person's true character.

In contrast, there is a certain strength of character that comes with eschewing modern conveniences such as cars, and with the knowledge that one is contributing to a cleaner and quieter environment, a safer neighborhood, and arguably a more genteel society. Also, alternative modes of transportation such as bicycling and walking are forms of exercise which require and promote the virtue of self-discipline. Finally, in my observation people who have forsaken the automobile spend more time at home, where they are more inclined to prepare and even grow their own food, and to spend more time with their families. The former enhances one's independence; the latter enhances the integrity of one's values and the strength of one's family.

To sum up, the automobile helps illustrate that when a luxury becomes a necessity it can sap our independence and strength as individuals. Perhaps our society is better off, on balance, with such "luxuries"; after all, the automobile industry has created countless jobs, raised our standard of living, and made the world more interesting. However, by becoming slaves to the automobile we trade off a certain independence and inner strength.

## 28, 85, 113, 121, 145

28 The surest indicator of a great nation is represented not by the achievements of its rulers, artists, or scientists, but by the general welfare of its people.

The speaker claims that great advances in knowledge necessarily involve rejection of authority. To the extent that political authority impedes such advances, I agree with this claim. Otherwise, in my view most advances in knowledge actually embrace certain forms of authority, rather than rejecting authority out of hand.

One striking example of how political authority can impede the advancement of knowledge involves what we know about the age and evolution of planet Earth. In earlier centuries the official Church of England called for a literal interpretation of the Bible, according to which the Earth's age is determined to be about 6,000 years. If Western thinkers had continued to yield to the ostensible authority of the Church, the fields of structural and historical geology would never have advanced beyond the blind acceptance of this contention as fact.

A more modern example of how yielding to political authority can impede the advancement of knowledge involves the Soviet Refusenik movement of the 1920s. During this time period the Soviet government attempted not only to control the direction and the goals of its scientists' research but also to distort the outcome of that research. During the 1920s the Soviet government quashed certain areas of scientific inquiry, destroyed entire research facilities and

libraries, and caused the sudden disappearance of many scientists who were engaged in research that the state viewed as a potential threat to its power and authority. Not surprisingly, during this time period no significant advances in scientific knowledge occurred under the auspices of the Soviet government.

However, given a political climate that facilitates free thought and honest intellectual inquiry, great advances in knowledge can be made by actually embracing certain forms of "authority." A good example involves modern computer technology. Only by building on, or embracing, certain well-established laws of physics were engineers able to develop silicon-based semi-conductor technology. Although new biotechnology research suggests that organic, biochemical processors will replace artificial semi-conductors as the computers of the future, it would be inappropriate to characterize this leap in knowledge as a rejection of authority.

In sum, to the extent that political authority imposes artificial constraints on knowledge, I agree that advances in knowledge might require rejection of authority. Otherwise, in my observation advances in knowledge more typically embrace and build on authoritative scientific principles and laws, and do not require the rejection of any type of authority.

#### 33

# 33 As we acquire more knowledge, things do not become more comprehensible, but more complex and mysterious.

Does knowledge render things more comprehensible, or more complex and mysterious? In my view the acquisition of knowledge brings about all three at the same time. This paradoxical result is aptly explained and illustrated by a number of advances in our scientific knowledge.

Consider, for example, the sonar system on which blind bats rely to navigate and especially to seek prey. Researchers have learned that this system is startlingly sophisticated. By emitting audible sounds, then processing the returning echoes, a bat can determine in a nanosecond not only how far away its moving prey is but also the prey's speed, direction, size and even specie! This knowledge acquired helps explain, of course, how bats navigate and survive. Yet at the same time this knowledge points out the incredible complexity of the auditory and brain functions of certain animals, even of mere humans, and creates a certain mystery and wonder about how such systems ever evolved organically.

Or consider our knowledge of the universe. Advances in telescope and space-exploration technology seem to corroborate the theory of a continually expanding universe that began at the very beginning of time with a "big bang." On one level this knowledge, assuming it qualifies as such, helps us comprehend our place in the universe and our ultimate destiny. Yet on the other hand it adds yet another chapter to the mystery about what existed before time and the universe.

Or consider the area of atomic physics. The naked human eye perceives very little, of course, of the complexity of matter. To our distant ancestors the physical world appeared simple--seemingly comprehensible by means of sight and touch. Then by way of scientific knowledge we learned that all matter is comprised of atoms, which are further comprised of

protons, neutrons, and electrons. Then we discovered an even more basic unit of matter called the quark. And now a new so-called "string" theory posits the existence of an even more fundamental, and universal, unit of matter. On the one hand, these discoveries have rendered things more comprehensible, by explaining and reconciling empirical observations of how matter behaves. The string theory also reconciles the discrepancy between the quantum and wave theories of physics. On the other hand, each discovery has in turn revealed that matter is more complex than previously thought. In fact, the string theory, which is theoretically sound, calls for seven more dimensions---in addition to the three we already know about! I'm hard-pressed to imagine anything more complex or mysterious.

In sum, the statement overlooks a paradox about knowledge acquired, at least when it comes to understanding the physical world. When through knowledge a thing becomes more comprehensible and explainable we realize at the same time that it is more complex and mysterious than previously thought.

#### 34

# 34 In any situation, progress requires discussion among people who have contrasting points of view.

The speaker contends that progress is best made through discourse among people with opposing opinions and viewpoints. I strongly agree with this contention. In all realms of human endeavor, including the behavioral and natural sciences as well as government and law, debate and disagreement form the foundation for progress.

Regarding the physical sciences, our scientific method is essentially a call for progress through opposition. Any new theory must withstand rigorous scientific scrutiny. Moreover, the history of theoretical science is essentially a history of opposing theories. A current example involves two contrary theories of physics: wave theory and quantum theory. During the last 20 years or so scientists have been struggling to disprove one or the other, or to reconcile them. By way of this intense debate, theorists have developed a new so-called "string" theory which indeed reconciles them--at least mathematically. Although "strings" have yet to be confirmed empirically, string theory might turn out to provide the unifying laws that all matter in the universe obeys.

The importance of opposing theories is not limited to the purely physical sciences. Researchers interested in human behavior have for some time been embroiled in the so-called "nature-nurture" debate, which involves whether behavioral traits are a function of genetic disposition and brain chemistry ("nature") or of learning and environment ("nurture"). Not surprisingly, psychologists and psychiatrists have traditionally adopted sharply opposing stances in this debate. And it is this very debate that has sparked researchers to discover that many behavioral traits are largely a function of the unique neurological structure of each individual's brain, and not a function of nurture. These and further discoveries certainly will lead to progress in dealing effectively with pressing social issues in the felds of education, juvenile delinquency, criminal reform, and mental illness. The outcomes of the debate also carry important

implications about culpability and accountability in the eyes of the law. In short, the nature-nurture debate will continue to serve as a catalyst for progress across the entire social spectrum.

The value of discourse between people with opposing viewpoints is not limited to the physical and behavioral sciences. In government and politics, progress in human rights comes typically through dissension from and challenges to the status quo; in fact, without disagreement among factions with opposing viewpoints, political oppression and tyranny would go unchecked. Similarly, in the fields of civil and criminal law, jurists and legislators who uphold and defend legal precedent must face continual opposition from those who question the fairness and relevance of current laws. This ongoing debate is critical to the vitality and relevance of our system of laws.

History informs us of the chilling effect suppression of free discourse and debate can have on progress. Consider the Soviet Refusenik movement of the 1920s. During this time period the Soviet government attempted not only to control the direction and the goals of scientific research but also to distort the outcomes of that research. During the 1920s the Soviet government quashed certain areas of scientific inquiry, destroyed research facilities and libraries, and caused the sudden disappearance of scientists who were engaged in research that the state viewed as a potential threat. Not surprisingly, during this time period no significant advances in scientific knowledge occurred under the auspices of the Soviet government.

In sum, the speaker correctly asserts that it is through discourse, disagreement, and debate between opposing viewpoints that true progress can best be made. Indeed, advances in science, social welfare, government and law depend on the debate.

### 37

37 Society should identify those children who have special talents and provide training for them at an early age to develop their talents.

I agree that we should attempt to identify and cultivate our children's talents. However, in my view the statement goes too far, by suggesting that selected children receive special attention. If followed to the letter, this suggestion carries certain social, psychological, and human-rights implications that might turn out to be more harmful than beneficial not just to children but to the entire society.

At first blush the statement appears compelling. Although I am not a student of developmental psychology, my understanding is that unless certain innate talents are nurtured and cultivated during early childhood those talents can remain forever dormant; and both the child and the society stand to lose as a result. After all, how can a child who is musically gifted ever see those gifts come to fruition without access to a musical instrument? Or, how can a child who has a gift for linguistics ever learn a foreign language without at least some exposure to it? Thus I agree with the statement insofar as any society that values its own future well-being must be attentive to its children's talents.

Beyond this concession, however, I disagree with the statement because it seems to recommend that certain children receive special attention at the expense of other children—a recommendation that I find troubling in three respects. First, this policy would require that a society of parents make choices that they surely will never agree upon to begin with---for example, how and on what basis each child's talents should be deter mined, and what sorts of talents are most worth society's time, attention, and resources. While society's parents would never reach a reasonable consensus on these issues, it would be irresponsible to leave these choices to a handful of legislators and bureaucrats.

After all, they are unlikely to have the best interests of our children in mind, and their choices would be tainted by their own quirky, biased, and otherwise wrongheaded notions of what constitutes worthwhile talent. Thus the unanswerable question becomes: Who is to make these choices to begin with?

Secondly, a public policy whereby some children receive preferential treatment carries dangerous sociological implications. The sort of selectivity that the statement recommends might tend to split society into two factions: talented elitists and all others. In my view any democratic society should abhor a policy that breeds or exacerbates socio economic disparities.

Thirdly, in suggesting that it is in society's best interest to identify especially talented children, the statement assumes that talented children are the ones who are most likely to contribute greatly to the society as adults. I find this assumption somewhat dubious, for I see no reason why a talented child, having received the benefit of special attention, might nevertheless be unmotivated to ply those talents in useful ways as an adult. In fact, in my observation many talented people who misuse their talents--in ways that harm the very society that helped nurture those talents.

Finally, the statement ignores the psychological damage that a preferential policy might inflict on all children. While children selected for special treatment grow to deem themselves superior, those left out feel that they a worth less as a result. I think any astute child psychologist would warn that both types of cases portend psychological trouble later in life. In my view we should favor policies that affirm the self-worth of every child, regardless of his or her talents---or lack thereof. Otherwise, we will quickly devolve into a society of people who cheapen their own humanity

In the final analysis, when we help our children identify and develop their talents we are all better off. But ifwe help only some children to develop only some talents, I fear that on balance we will all be worse off.

#### 42

#### 42 Students should always question what they are taught instead of accepting it passively.

The speaker contends that students should be skeptical in their studies, and should not accept passively whatever they are taught. In my view, although undue skepticism might be counterproductive for a young child's education, I strongly agree with the speaker otherwise. If we were all to accept on blind faith all that we are taught, our society would never progress or

evolve.

Skepticism is perhaps most important in the physical sciences. Passive acceptance of prevailing principles quells innovation, invention, and discovery. In fact, the very notion of scientific progress is predicated on rigorous scientific inquiry--in other words, skepticism. And history is replete with examples of students of science who challenged what they had been taught, thereby paving the way for scientific progress. For example, in challenging the notion that the Earth was in a fixed position at the center of the universe, Copernicus paved the way for the corroborating observations of Galileo a century later, and ultimately for Newton's principles of gravity upon which all modern science is based. The staggering cumulative impact of Copernicus' rejection of what he had been taught is proof enough of the value of skepticism.

The value of skepticism is not limited to the physical sciences, of course. In the fields of sociology and political science, students must think critically about the assumptions underlying the status quo; otherwise, oppression, tyranny and prejudice go unchecked. Similarly, while students of the law must learn to appreciate timeless legal doctrines and principles, they must continually question the fairness and relevance of current laws. Otherwise, our laws would not evolve to reflect changing societal values and to address new legal issues arising from our ever-evolving technologies.

Even in the arts, students must challenge established styles and forms rather than learn to imitate them; otherwise, no genuinely new art would ever emerge. Bee-bop musicians such as Charlie Parker demonstrated through their wildly innovative harmonies and melodies their skepticism about established rules for harmony and melody. In the area of dance BaUanchine showed by way of his improvisational techniques his skepticism about established rules for choreography. And Germany's Bauhaus School of Architecture, to which modern architecture owes its existence, was rooted in skepticism about the proper objective, and resulting design, of public buildings.

Admittedly, undue skepticism might be counterproductive in educating young children. I am not an expert in developmental psychology; yet observation and common sense informs me that youngsters must first develop a foundation of experiential knowledge before they can begin to think critically about what they are learning. Even so, in my view no student, no matter how young, should be discouraged from asking "Why?" and "Why not?"

To sum up, skepticism is the very stuff that progress is made of, whether it be in science, sociology, politics, the law, or the arts. Therefore, skepticism should be encouraged at all but the most basic levels of education.

#### 48

48 Educators should teach facts only after their students have studied the ideas, trends, and concepts that help explain those facts.

The speaker makes a threshold claim that students who learn only facts learn very little, then concludes that students should always learn about concepts, ideas, and trends before they memorize facts. While I wholeheartedly agree with the threshold claim, the conclusion unfairly

generalizes about the learning process. In fact, following the speaker's advice would actually impede the learning of concepts and ideas, as well as impeding the development of insightful and useful new ones.

Turning first to the speaker's threshold claim, I strongly agree that if we learn only facts we learn very little. Consider the task of memorizing the periodic table of dements, which any student can memorize without any knowledge of chemistry, or that the table relates to chemistry. Rote memorization of the table amounts to a bit of mental exercise-an opportunity to practice memorization techniques and perhaps learn some new ones. Otherwise, the student has learned very little about chemical dements, or about anything for that matter.

As for the speaker's ultimate claim, I concede that postponing the memorization of facts until after one learns ideas and concepts holds certain advantages. With a conceptual framework already in place a student is better able to understand the meaning of a fact, and to appreciate its significance. As a result, the student is more likely to memorize the fact to begin with, and less likely to forget it as time passes. Moreover, in my observation students whose first goal is to memorize facts tend to stop there--for whatever reason. It seems that by focusing on facts first students risk equating the learning process with the assimilation of trivia; in turn, students risk learning nothing of much use in solving real world problems.

Conceding that students must learn ideas and concepts, as well as facts relating to them, in order to learning anything meaningful, I nevertheless disagree that the former should always precede the latter--for three reasons. In the first place, I see know reason why memorizing a fact cannot precede learning about its meaning and significance--as long as the student does not stop at rote memorization. Consider once again our hypothetical chemistry student. The speaker might advise this student to first learn about the historical trends leading to the discovery of the elements, or to learn about the concepts of altering chemical compounds to achieve certain reactions--before studying the periodic table. Having no familiarity with the basic vocabulary of chemistry, which includes the information in the periodic table, this student would come away from the first two lessons bewildered and confused in other words, having learned little.

In the second place, the speaker misunderstands the process by which we learn ideas and concepts, and by which we develop new ones. Consider, for example, how economics students learn about the relationship between supply and demand, and the resulting concept of market equilibrium, and of surplus and shortage. Learning about the dynamics of supply and demand involves (1) entertaining a theory, and perhaps even formulating a new one, (2) testing hypothetical scenarios against the theory, and (3) examining real-world facts for the purpose of confirming, refuting, modifying, or qualifying the theory. But which step should come first? The speaker would have us follow steps 1 through 3 in that order. Yet, theories, concepts, and ideas rarely materialize out of thin air; they generally emerge from empirical observations--i.e., facts. Thus the speaker's notion about how we should learn concepts and ideas gets the learning process backwards.

In the third place, strict adherence to the speaker's advice would surely lead to ill conceived ideas, concepts, and theories. Why? An idea or concept conjured up without the benefit of data amounts to little more than the conjurer's hopes and desires. Accordingly, conjurers will tend to seek out facts that support their prejudices and opinions, and overlook or avoid facts that refute them. One telling example involves theories about the center of the universe. Understandably, we ego-driven humans would prefer that the universe revolve around us. Early theories

presumed so for this reason, and facts that ran contrary to this ego-driven theory were ignored, while observers of these facts were scorned and even vilified. In short, students who strictly follow the speaker's prescription are unlikely to contribute significantly to the advancement of knowledge.

To sum up, in a vacuum facts are meaningless, and only by filling that vacuum with ideas and concepts can students learn, by gaining useful perspectives and insights about facts. Yet, since facts are the very stuff from which ideas, concepts, and trends spring, without some facts students cannot learn much of anything. In the final analysis, then, students should learn facts right along with concepts, ideas, and trends.

#### 56

56 Many important discoveries or creations are accidental: it is usually while seeking the answer to one question that we come across the answer to another.

The speaker contends that most important discoveries and creations are accident-----that they come about when we are seeking answers to other questions. I concede that this contention finds considerable support from important discoveries of the past. However, the contention overstates the role of accident, or serendipity, when it comes to modern day discoveries---and when it comes to creations.

Turning first to discoveries, I agree that discovery often occurs when we unexpectedly happen upon something in our quest for something else--such as an answer to unrelated question or a solution to an unrelated problem. A variety of geographical, scientific, and anthropological discoveries aptly illustrate this point. In search of a trade route to the West Indies Columbus discovered instead an inhabited continent unknown to Europeans; and during the course of an unrelated experiment Fleming accidentally discovered penicillin. In search of answers to questions about marine organisms, oceanographers often happen upon previously undiscovered, and important, archeological artifacts and geological phenomena; conversely, in their quest to understand the Earth's structure and history geologists often stumble upon important human artifacts. In light of the foregoing examples, "intentional discovery" might seem an oxymoron; yet in fact it is not. Many important discoveries are anticipated and sought out purposefully.

For instance, in their efforts to find new celestial bodies astronomers using increasingly powerful telescopes do indeed find them. Biochemists often discover important new vaccines and other biological and chemical agents for the curing, preventing, and treating diseases not by stumbling upon them in search of something else but rather through methodical search for these discoveries. In fact, in today's world discovery is becoming increasingly an anticipated result of careful planning and methodical research, for the reason that scientific advancement now requires significant resources that only large corporations and governments possess. These entities are accountable to their share-holders and constituents, who demand dear strategies and objectives so that they can see a return on their investments.

Turning next to how our creations typically come about, in marked contrast to discoveries,

creations are by nature products of their creators' purposeful designs. Consider humankind's key creations, such as the printing press, the internal combustion engine, and semi-conductor technology. Each of these inventions sprung quite intentionally from the inventor's imagination and objectives. It is crucial to distinguish here between a creation and the spin-offs from that creation, which the original creator may or may not foresee. For instance, the engineers at a handful of universities who originally created the ARPAnet as a means to transfer data amongst themselves certainly intended to create that network for that purpose. What these engineers did not intend to create, however, was what would eventually grow to become the infrastrucRLre for mass media and communications, and even commerce. Yet the ARPAnet itself was no accident, nor are the many creations that it spawned, such as the World Wide Web and the coundess creations that the Web has in turned spawned.

In sum, the speaker has overlooked a crucial distinction between the nature of discovery and the nature of creation. Although serendipity has always played a key role in many important discoveries, at least up until now, purposeful intent is necessarily the key to human creation.

#### 60、151

# 60 Politicians should pursue common ground and reasonable consensus rather than elusive ideals.

Should educators focus equally on enriching students' personal lives and on job preparation, as the speaker contends? In my view, preparing students for the mundane aspects of work should be secondary to providing a broader education that equips students with historical and cultural perspective, as well as thoughtful and principled personal value systems and priorities. Paradoxically, it is through the liberal studies, which provide these forms of personal enrichment, that students can also best prepare for the world of work.

One reason why educators should emphasize personal enrichment over job preparation is that rote technical knowledge and skill do not help a student determine which goals in life are worthwhile and whether the means of attaining those goals are ethically or morally acceptable. Liberal studies such as philosophy, history, and comparative sociology enable students to develop thoughtful and consistent value systems and ethical standards, by which students can determine how they can best put their technical knowledge and skills to use in the working world. Thus, by nurturing the development of thoughtful personal value systems, educators actually help prepare students for their jobs and careers.

Another reason why educators should emphasize personal enrichment over job preparation is that specific knowledge and skills needed for jobs are changing more and more quickly. Thus it would be a waste of our education system to focus on specific knowledge and skills that will soon become obsolete--at the expense of providing a lasting and personally satisfying educational experience. It seems more appropriate today for employers to provide the training our work force needs to perform their jobs, freeing up our educators to help enrich students' lives in ways that will serve them in any walk of life.

A third reason why educators should emphasize personally enriching course

work--particularly anthropology, sociology, history, and political philosophy--is that these courses help students understand, appreciate, and respect other people and their viewpoints. As these students grow into working adults they will be better able to cooperate, compromise, understand various viewpoints, and appreciate the rights and duties of coworkers, supervisors, and subordinates. Rote technical knowledge and skill do little to help us get along with other people.

Admittedly, certain aspects of personal enrichment, especially spirituality and religion, should be left for parents and churches to provide; after all, by advocating teachings of any particular religion, public educators undermine our basic freedom of religion. Yet it is perfectly appropriate, and useful, to inform students about various religious beliefs, customs and institutions. Learning about different religions instills respect, tolerance, and understanding. Moreover, students grow to appreciate certain fundamental virtues, such as compassion, virtue, and humility, which all major religions share. Through this appreciation students grow into adults who can work well together toward mutually agreed-upon goals.

In sum, it is chiefly through the more personally enriching Liberal studies that educators help students fully blossom into well-rounded adults and successful workers. There will always be a need to tram people for specific jobs, of course. However, since knowledge is advancing so rapidly, employers and job-training programs are better equipped to provide this function, leaving formal educators free to provide a broader, more personally enriching education that will serve students throughout their lives and in any job or career.

#### 66

66 People who are the most deeply committed to an idea or policy are also the most critical of it.

The speaker claims that people who are the most firmly committed to an idea or policy are the same people who are most critical of that idea or policy. While I find this claim paradoxical on its face, the paradox is explainable, and the explanation is well supported empirically. Nevertheless, the claim is an unfair generalization in that it fails to account for other empirical evidence serving to discredit it.

A threshold problem with the speaker's claim is that its internal logic is questionable. At first impression it would seem that firm commitment to an idea or policy necessarily requires the utmost confidence in it, and yet one cannot have a great deal of confidence in an idea or policy if one recognizes its flaws, drawbacks, or other problems. Thus commitment and criticism would seem to be mutually exclusive. But are they? One possible explanation for the paradox is that individuals most fmnly committed to an idea or policy are often the same people who are most knowledgeable on the subject, and therefore are in the best position to understand and appreciate the problems with the idea or policy.

Lending credence to this explanation for the paradoxical nature of the speaker's claim are the many historical cases of uneasy marriages between commitment to and criticism of the same idea or policy. For example, Edward Teller, the so-called "father of the atom bomb," was firmly committed to America's policy of gaining military superiority over the Japanese and the Germans;

yet at the same time he attempted fervently to dissuade the U.S. military from employing his technology for destruction, while becoming the most visible advocate for various peaceful and productive applications of atomic energy. Another example is George Washington, who was quoted as saying that all the world's denizens "should abhor war wherever they may find it." Yet this was the same military general who played a key role in the Revolutionary War between Britain and the States. A third example was Einstein, who while committed to the mathematical soundness of his theories about relativity could not reconcile them with the equally compelling quantum theory which emerged later in Einstein's life. In fact, Einstein spent the last twenty years of his life criticizing his own theories and struggling to determine how to reconcile them with newer theories.

In the face of historical examples supporting the speaker's claim are innumerable influential individuals who were zealously committed to certain ideas and policies but who were not critical of them, at least not outwardly. Could anyone honestly claim, for instance, that Elizabeth Stanton and Susan B. Anthony, who in the late 19th Century paved the way for the women's rights movement by way of their fervent advocacy, were at the same time highly critical or suspicious of the notion that women deserve equal rights under the law? Also, would it not be absurd to claim that Mahatma Gandhi and Martin Luther King, history's two leading advocates of civil disobedience as a means to social reform, had serious doubts about the ideals to which they were so demonstrably committed? Finally, consider the two ideologues and revolutionaries Lenin and Mussolini. Is it even plausible that their demonstrated commitment to their own Communist and Fascist policies, respectively, belied some deep personal suspicion about the merits of these policies? To my knowledge no private writing of any of these historical figures lends any support to the claim that these leaders were particularly critical of their own ideas or policies.

To sum up, while at first glance a deep commitment to and incisive criticism of the same idea or policy would seem mutually exclusive, it appears they are not. Thus the speaker's claim has some merit. Nevertheless, for every historical case supporting the speaker's claim are many others serving to refute it. In the final analysis, then, the correctness of the speaker's assertion must be determined on a case-by-case basis.

#### **73**

# 73 Colleges and universities should require all faculty to spend time working outside the academic world in professions relevant to the courses they teach.

Whether college faculty should also work outside academia, in professional work related to their academic fields, depends primarily on the specific academic area. With respect to fields in which outside work is appropriate, I strongly agree with the statement; students and faculty all stand to gain in a variety of respects when a professor complements academic duties with real-world experience.

As a threshold matter, the statement requires qualification in two respects. First, in certain academic areas there is no profession to speak of outside academia. This is especially true in the humanities; after all, what work outside academia is there for professors of literature or

philosophy? Secondly, the statement fails to consider that in certain other academic areas a professor's academic duties typically involve practical work of the sort that occurs outside academia. This is especially true in the fine and performing arts, where faculty actively engage in the craft by demonstrating techniques and styles for their students.

Aside from these two qualifications, I strongly agree that it is worthwhile for college faculty to work outside academia in professional positions related to their field. There are three dear benefits of doing so. First, in my experience as a student, faculty who are actively engaged in their fields come to class with fresh insights and a contagious excitement about the subject at hand. Moreover, they bring to their students practical, real-world examples of the principles and theories discussed in textbooks, thereby sparking interest, and even motivating some students to pursue the field as a career.

Secondly, by keeping abreast with the changing demands of work as a professional, professors can help students who are serious about pursuing a career in that field to make more informed career decisions. The professor with field experience is better able to impart useful, up-to-date information about what work in the field entails, and even about the current job market. After all, college career-planning staff are neither equipped nor sufficiently experienced to provide such specific advice to students.

A third benefit has to do with faculty research and publication in their areas of specialty. Experience in the field can help a professor ferret out cutting-edge and controversial issues--which might be appropriate subjects for research and publication. Moreover, practical experience can boost a professor's credibility as an expert in the field. For example, each year a certain sociology professor at my college combined teaching with undercover work investigating various cults. Not only did the students benefit from the many interesting stories this professor had to tell about his experiences, the professor's publications about cults catapulted him to international prominence as an expert on the subject, and justifiably so.

In sum, aside from certain academic areas in which outside work is either unavailable or unnecessary, students and faculty alike stand everything to gain when faculty enrich their careers by interspersing field work with academic work.

#### 89

89 Claim: Many problems of modern society cannot be solved by laws and the legal system. Reason: Laws cannot change what is in people's hearts or minds.

I strongly agree that by studying any particular academic discipline we alter the way we perceive the world. As intellectual neophytes we tend to polarize what we see as either right or wrong, or as either good or bad. We also tend to interpret what we see by way of our emotions. Once educated, we gain the capacity to see a broader spectrum of opinion and perspective, and to see our own culture and even ourselves as a tapestry-like product of history.

Through the earnest pursuit of knowledge--particularly in history and literature--we reveal to ourselves the flaws and foibles of other humans whose lives we study and read about. History teaches us, for example, that demagogues whom society places on pedestals often fall under the

weight of their own prejudices, jealousies, and other character flaws. And, any serious student of Shakespeare comes away from reading King Lear and Hamlet with a heightened awareness of the tragically flawed ironic hero, and of the arbitrariness by which we distinguish our heroes from our villains.

Through education we begin to see flaws not only in people but also in ideologies that we had previously embraced on pure faith. A student of government and public policy learns that many of the so-called "solutions" which our legislatures and jurists hand down to us from atop their pedestals are actually Band-Aid comprises designed to appease opponents and pander to the electorate. A philosophy student learns to recognize logical fallacies of popular ideas and the rhetoric of our political parties, religious denominations, and social extremists. And, a law student learns that our system of laws is not a monolithic set of truths but rather an ever-changing reflection of whatever the society's current mores, values, and attitudes happen to be.

While education helps us see the flawed nature of our previously cherished ideas, paradoxically it also helps us see ideas we previously rejected out of hand in a different light--as having some merit after all. Through education in public policy and law, once-oppressive rules, regulations, and restrictions appear reasonable constraints on freedom in light of legitimate competing interests. Through the objective study of different religious institutions, customs, and faiths, a student learns to see the merits of different belief systems, and to see the cultural and philosophical traditions in which they are rooted.

Education also helps us see our own culture through different eyes. As cultural neophytes we participate unwittingly in our culture's own customs, rituals, and ceremonies--because we see them as somehow sacrosanct. A student of sociology or cultural anthropology comes to see those same customs, rituals, and ceremonies as tools which serve our psychological need to belong to a distinct social group, and to reinforce that sense of belonging by honoring the group's traditions. And, by reading the literary works of writers from bygone eras, a literature student comes to see his or her own culture as a potential treasure trove of fodder for the creative literary mind. For example, by studying Twain's works a student learns that Twain saw 19th-Century life along the Mississippi not as a mundane existence but as a framework for the quintessential adventure story, and that we can similarly transform the way we see our own culture.

Finally, education in the arts alters forever the way we perceive the aesthetic world around us. Prior to education we respond instinctively, emotionally, and viscerally to the forms, colors, and sounds of art. Post education we respond intellectually. We seek to appreciate what art reveals about our culture and about humanity. We also seek to understand the aesthetic principles upon which true art is founded. For instance, an earnest art student learns to see not just pigments and shapes but also historical influences and aesthetic principles. An informed listener of popular music hears not just the same pleasing sounds and pulsating rhythms as their naive counterparts, but also the rhythmic meters, harmonic structure, and compositional forms used by the great classical composers of previous centuries, and which provided the foundation of modern music.

To sum up, through education we no longer see our heroes, leaders, and idols through the same credulous eyes, nor do we see other humans and their ideas through the black-and-white lens of our own point of view. In the final analysis, through education we come not only to

perceive the world differently but also to understand the subjective, and therefore changeable, nature of our own perceptions.

#### 91

# 91 The primary goal of technological advancement should be to increase people's efficiency so that they have more leisure time.

The speaker contends that technology's primary goal should be to increase our efficiency for the purpose of affording us more leisure time. I concede that technology has enhanced our efficiency as we go about our everyday lives. Productivity software helps us plan and coordinate projects; intranets, the Internet, and satellite technology make us more efficient messengers; and technology even helps us prepare our food and access entertainment more efficiently. Beyond this concession, however, I find the speaker's contention indefensible from both an empirical and a normative standpoint.

The chief reason for my disagreement lies in the empirical proof: with technological advancement comes diminished leisure time. In 1960 the average U.S. family included only one breadwinner, who worked just over 40 hours per week. Since then the average work week has increased steadily to nearly 60 hours today; and in most families there are now two breadwinners. What explains this decline in leisure despite increasing efficiency that new technologies have brought about? I contend that technology itself is the culprit behind the decline. We use the additional free time that technology affords us not for leisure but rather for work. As computer technology enables greater and greater office productivity it also raises our employers' expectations—or demands—for production. Further technological advances breed still greater efficiency and, in turn, expectations. Our spiraling work load is only exacerbated by the competitive business environment in which nearly all of us work today. Moreover, every technological advance demands our time and attention in order to learn how to use the new technology. Time devoted to keeping pace with technology depletes time for leisure activities.

I disagree with the speaker for another reason as well: the suggestion that technology's chief goal should be to facilitate leisure is simply wrongheaded. There are far more vital concerns that technology can and should address. Advances in bio-technology can help cure and prevent diseases; advances in medical technology can allow for safer, less invasire diagnosis and treatment; advances in genetics can help prevent birth defects; advances in engineering and chemistry can improve the structural integrity of our buildings, roads, bridges and vehicles; information technology enables education while communication technology facilitates global participation in the democratic process. In short, health, safety, education, and freedom--and not leisure--are the proper final objectives of technology. Admittedly, advances in these areas sometimes involve improved efficiency; yet efficiency is merely a means to these more important ends.

In sum, I find indefensible the speaker's suggestion that technology's value lies chiefly in the efficiency and resulting leisure time it can afford us. The suggestion runs contrary to the overwhelming evidence that technology diminishes leisure time, and it wrongly places leisure

ahead of goals such as health, safety, education, and freedom as technology's ultimate aims.

#### 101

101 Although innovations such as video, computers, and the Internet seem to offer schools improved methods for instructing students, these technologies all too often distract from real learning.

The speaker asserts that innovations such as videos, computers, and the Internet too often distract from "real" learning in the classroom. I strongly agree that these tools can be counterproductive in some instances, and ineffectual for certain types of learning. Nevertheless, the speaker's assertion places too little value on the ways in which these innovations can facilitate the learning process.

In several respects, I find the statement compelling. First of all, in my observation and experience, computers and videos are misused most often for education when teachers rely on them as surrogates, or baby-sitters. Teachers must use the time during which students are watching videos or are at their computer stations productively--helping other students, preparing lesson plans, and so forth. Otherwise, these tools can indeed impede the learning process.

Secondly, passive viewing of videos or of Web pages is no indication that any significant learning is taking place. Thus teachers must carefully select Internet resources that provide a true interactive learning experience, or are highly informative otherwise. And, in selecting videos teachers must be sure to follow up with lively class discussions. Otherwise, the comparatively passive nature of these media can render them ineffectual in the learning process.

Thirdly, some types of learning occur best during face-to-face encounters between teacher and student, and between students. Only by way of a live encounter can a language teacher recognize and immediately correct subtle problems in pronunciation and inflection. And, there is no suitable substitute for a live encounter when it comes to teaching techniques in painting, sculpture, music performance, and acting. Moreover, certain types of learning are facilitated when students interact as a group. Many grade school teachers, for example, find that reading together aloud is the most effective way for students to learn this skill.

Fourth, with technology-based learning tools, especially computers and the Internet, learning how to use the technology can rob the teacher of valuable time that could be spent accomplishing the teacher's ultimate educational objectives. Besides, any technology-based learning tool carries the risk of technical problems. Students whose teachers fail to plan for productive use of unexpected down-time can lose opportunities for real learning.

Finally, we must not overlook the non-quantifiable benefit that personal attention can afford. A human teacher can provide meaningful personal encouragement and support, and can identify and help to solve a student's social or psychological problems that might be impeding the learning process. No video, computer program, or Web site can begin to serve these invaluable functions.

Acknowledging the many ways that technological innovations can impede "real" learning, these innovations nevertheless can facilitate "real" learning, if employed judicially and for

appropriate purposes. Specifically, when it comes to learning rote facts and figures, personal interaction with a teacher is unnecessary, and can even result in fatigue and burnout for the teacher. Computers are an ideal tool for the sorts of learning that occur only through repetition--typing skills, basic arithmetical calculations, and so forth. Computers also make possible visual effects that aid uniquely in the learning of spatial concepts. Finally, computers, videos and the Internet are ideal for imparting basic text-book information to students, thereby freeing up the teacher's time to give students individualized attention.

In sum, computers and videos can indeed distract from learning--when teachers misuse them as substitutes for personal attention, or when the technology itself becomes the focus of attention. Nevertheless, if judicially used as primers, as supplements, and where repetition and rote learning are appropriate, these tools can serve to liberate teachers to focus on individual needs of students--needs that only "real" teachers can recognize and meet.

#### 104、107

# 104 To be an effective leader, a public official must maintain the highest ethical and moral standards.

Whether successful leadership requires that a leader follow high ethical and moral standards is a complex issue--one that is fraught with the problems of defining ethics, morality, and successful leadership in the first place. In addressing the issue it is helpful to consider in turn three distinct forms of leadership: business, political, and social-spiritual.

In the business realm, successful leadership is generally defined as that which achieves the goal of profit maximization for a firm's shareholders or other owners. Moreover, the prevailing view in Western corporate culture is that by maximizing profits a business leader fulfills his or her highest moral or ethical obligation. Many disagree, however, that these two obligations are the same. Some detractors claim, for example, that business leaders have a duty to do no intentional harm to their customers or to the society in which they operate—for example, by providing safe products and by implementing pollution control measures. Other detractors go further—to impose on business leaders an affirmative obligation to protect consumers, preserve the natural environment, promote education, and otherwise take steps to help alleviate society's problems.

Whether our most successful business leaders are the ones who embrace these additional obligations depends, of course, on one's own definition of business success. In my observation, as business leaders become subject to closer scrutiny by the media and by social activists, business leaders will maximize profits in the long term only by taking reasonable steps to minimize the social and environmental harm their businesses cause. This observation also accords with my personal view of a business leader's ethical and moral obligation.

In the political realm the issue is no less complex. Definitions of successful political leadership and of ethical or moral leadership are tied up in the means a leader uses to wield his or her power and to obtain that power in the first place. One useful approach is to draw a distinction between personal morality and public morality. In my observation personal morality is unrelated to effective political leadership. Modern politics is replete with examples of what most

people would consider personal ethical failings: the marital indiscretions of President Kennedy, for instance. Yet few would disagree that these personal moral choices adversely affected his ability to lead.

In contrast, public morality and successful leadership are more closely connected. Consider the many leaders, such as Stalin and Hitler, whom most people would agree were egregious violators of public morality. Ultimately such leaders forfeit their leadership as a result of the immoral means by which they obtained or wielded their power. Or consider less egregious examples such as President Nixon, whose contempt for the very legal system that afforded him his leadership led to his forfeiture of it. It seems that in the short term unethical public behavior might serve a political leader's interest in preserving his or her power; yet in the long term such behavior invariably results in that leader's down-fall that is, in failure.

One must also consider a third type of leadership: social-spiritual. Consider notable figures such as Gandhi and Martin Luther King, whom few would disagree were eminently successful in leading others to practice the high ethical and moral standards which they advocated. However, I would be hard-pressed to name one successful social or spiritual leader whose leadership was predicated on the advocacy of patently unethical or immoral behavior. The reason for this is simple: high standards for one's own public morality are prerequisites for successful social-spiritual leadership.

In sum, history informs us that effective political and social-spiritual leadership requires adherence to high standards of public morality. However, when it comes to business leadership the relationship is less clear; successful business leaders must strike a balance between achieving profit maximization and fulfilling their broader obligation to the society, which comes with the burden of such leadership.

#### 108, 110

108 Critical judgment of work in any given field has little value unless it comes from someone who is an expert in that field.

The speaker's assertion that work in any field can be judged only by experts in that field amounts to an unfair generalization, in my view. I would concur with the speaker when it comes to judging the work of social scientists, although I would strongly disagree when it comes to work in the pure physical sciences, as explained in the following discussion.

With respect to the social sciences, the social world presents a seamless web of not only anthropogenic but also physical forces, which interact in ways that can be understood only in the context of a variety of disciplines. Thus experts from various fields must collectively determine the merit of work in the social sciences. For example, consider the field of cultural anthropology. The merits of researcher's findings and conclusions about an ancient civilization must be scrutinized by biochemists, geologists, linguists, and even astronomers.

Specifically, by analyzing the hair, nails, blood and bones of mummified bodies, biochemists and forensic scientists can pass judgment on the anthropologist's conjectures about the life expectancy, general well-being, and common causes of death of the population. Geologists are

needed to identify the source and age of the materials used for tools, weapons, and structures--thereby determining whether the anthropologist extrapolated correctly about the civilization's economy, trades and work habits, life styles, extent of travel and mobility, and so forth. Linguists are needed to interpret hieroglyphics and extrapolate from found fragments of writings. And astronomers are sometimes needed to determine with the anthropologist's explanations for the layout of an ancient city or the design, structure and position of monuments, tombs, and temples is convincing-because ancients often looked to the stars for guidance in building cities and structures.

In contrast, the work of researchers in the purely physical sciences can be judged only by their peers. The reason for this is that scientific theories and observations are either meritorious or not, depending solely on whether they can be proved or disproved by way of the scientific method. For example, consider the complex equations which physicists rely upon to draw conclusions about the nature of matter, time, and space, or the origins and future of the universe. Only other physicists in these specialties can understand, let alone judge, this type of theoretical work. Similarly, empirical observations in astrophysics and molecular physics require extremely sophisticated equipment and processes, which only experts in these fields have access to and who know how to use reliably.

Those who disagree that only inside experts can judge scientific work might point out that the expertise of economists and pubic-policy makers is required to determine whether the work is worthwhile from a more mundane economic or political viewpoint. Detractors might also point out that ultimately it is our philosophers who are best equipped to judge the ultimate import of ostensibly profound scientific discoveries. Yet these detractors miss the point of what I take to be the speaker's more narrow claim: that the integrity and quality of work---disregarding its socioeconomic utility----can be judged only by experts in the work's field.

In sum, in the social sciences no area of inquiry operates in a vacuum. Because fields such as anthropology, sociology, and history are so closely intertwined and even dependent on the physical sciences, experts from various fields must collectively determine the integrity and quality of work in these fields. However, in the purely physical sciences the quality and integrity of work can be adequately judged only by inside experts, who are the only ones equipped with sufficient technical knowledge to pass judgment.

#### 130, 150

130 Some people believe that corporations have a responsibility to promote the well-being of the societies and environments in which they operate. Others believe that the only responsibility of corporations, provided they operate within the law, is to make as much money as possible.

Should the only responsibility of a business executive be to maximize business profits, within the bounds of the law? In several respects this position has considerable merit; yet it ignores certain compelling arguments for imposing on businesses additional obligations to the society in which they operate.

On the one hand are two convincing arguments that profit maximization within the bounds of the law should be a business executive's sole responsibility. First, imposing on businesses additional duties to the society in which they operate can, paradoxically, harm that society. Compliance with higher ethical standards than the law requires--m such areas as environmental impact and workplace conditions--adds to business expenses and lowers immediate profits. In turn, lower profits can prevent the socially conscious business from creating more jobs, and from keeping its prices low and the quality of its products and services high. Thus if businesses go further than their legal duties in serving their communities the end result might be a net disservice to those communities.

Secondly, by affirming that profit maximization within legal bounds is the most ethical behavior possible for business, we encourage private enterprise, and more individuals enter the marketplace in the quest of profits. The inevitable result of increased competition is lower prices and better products, both of which serve the interests of consumers. Moreover, since maximizing profits enhances the wealth of a company's stakeholders, broad participation in private enterprise raises the wealth of a nation, expands its economy, and raises its overall standard of living and quality of life.

On the other hand are three compelling arguments for holding business executives to certain responsibilities m addition to profit maximization and to compliance with the letter of the law. First, a growing percentage of businesses are related to technology, and haws often lag behind advances in technology. As a result, new technology-based products and services might pose potential harm to consumers even though they conform to current laws. For example, Internet commerce is still largely unregulated because our lawmakers are slow to react to the paradigm shift from brick-and-mortar commerce to e-commerce. As a result, unethical marketing practices, privacy invasion, and violations of intellectual-property rights are going unchecked for lack of regulations that would clearly prohibit them.

Secondly, since a nation's laws do not extend beyond its borders, compliance with those laws does not prevent a business from doing harm elsewhere. Consider, for example, the trend among U.S. businesses in exploiting workers in countries where labor laws are virtually non-existent in order to avoid the costs of complying with U.S. labor laws.

Thirdly, a philosophical argument can be made that every business enters into an implied social contract with the community that permits it to do business, and that this social contract, although not legally enforceable, places a moral duty on the business to refrain from acting in ways that will harm that community.

In sum, I agree with the statement insofar as in seeking to maximize profits a business serves not only itself but also its employees, customers, and the overall economy. Yet today's rapidly changing business environment and increasing globalization call for certain affirmative obligations beyond the pursuit of profit and mere compliance with enforceable rules and regulations. Moreover, in the final analysis any business is indebted to the society in which it operates for its very existence, and thus has a moral duty, regardless of any legal obligations, to pay that debt.

# Part2: Argument

# Argument 范文精讲

#### 9、88、90

9. Nature's Way, a chain of stores selling health food and other health-related products, is opening its next franchise in the town of Plainsville. The store should prove to be very successful: Nature's Way franchises tend to be most profitable in areas where residents lead healthy lives, and clearly Plainsville is such an area. Plainsville merchants report that sales of running shoes and exercise clothing are at all-time highs. The local health club has more members than ever, and the weight training and aerobics classes are always full. Finally, Plainsville's schoolchildren represent a new generation of potential customers: these schoolchildren are required to participate in a fitness-for-life program, which emphasizes the benefits of regular exercise at an early age.

In this memo the vice president of Nature's Way CNW), a chain of stores selling health food and health-related products, recommends opening a store in Plamesville. To support this recommendation the vice president cites the following facts about Plainesville: (1) sales of exercise shoes and clothing are at all-time highs; (2) the local health club is more popular than ever; and (3) the city's schoolchildren are required to participate in a fitness program. Close scrutiny of each of these facts, however, reveals that none of them lend credible support to the recommendation.

First, strong sales of exercise apparel do not necessarily indicate that Plainesville residents would be interested in NW's products, or that these residents are interested in exercising. Perhaps exercise apparel happens to be fashionable at the moment, or inexpensive compared to other types of clothing. For that matter, perhaps the stronger-than-usual sales are due to increasing sales to tourists. In short, without mlmg out other possible reasons for the strong sales the vice president cannot convince me on the basis of them that Plainesville residents are exercising regularly, let alone that they would be interested in buying the sorts of food and other products that NW sells.

Secondly, even if exercise is more popular among Plainesville residents than ever before, the vice president assumes further that people who exercise regularly are also interested in buying health food and health-related products. Yet the memo contains no evidence to support this assumption. Lacking such evidence it is equally possible that aside from exercising Plainesville residents have little interest in leading a healthy lifestyle. In fact, perhaps as a result of regular exercise they believe they are sufficiently fit and healthy and do not need a healthy diet.

Thirdly, the popularity of the local health club is little indication that NW will earn a profit from a store in Plainesville. Perhaps club members live in an area of Plamesville nowhere near feasible sites for a NW store. Or perhaps the dub's primary appeal is as a singles meeting place, and that members actually have little interest in a healthy lifestyle. Besides, even if the club's

members would patronize a NW store these members might be insufficient in number to ensure a profit for the store, especially considering that this health club is the only one in Plainesville.

Fourth, the fact that a certain fitness program is mandatory for Plainesville's schoolchildren accomplishes nothing toward bolstering the recommendation. Many years must pass before these children will be old enough to make buying decisions when it comes to food and health-related products. Their habits and interests might change radically over time. Besides, mandatory participation is no indication of genuine interest in health or fitness. Moreover, when these children grow older it is entirely possible that they will favor an unhealthy lifestyle--as a reaction to the healthful habits imposed upon them now.

Finally, even assuming that Plamesville residents are strongly interested in eating health foods and health-related products, the recommendation rests on two additional assumptions: (1) that this interest will continue in the foreseeable future, and (2) that Plainesville residents will prefer NW over other merchants that sell similar products. Until the vice president substantiates both assumptions I remain unconvinced that a NW store in Plainesville would be profitable.

In sum, the recommendation relies on certain doubtful assumptions that render it unconvincing as it stands. To bolster the recommendation the vice president must provide dear evidence--perhaps by way of a local survey or study--that Plainesville residents who buy and wear exercise apparel, and especially the health club's members, do in fact exercise regularly, and that these exercisers are likely to buy health foods and health related products at a NW store. To better assess the recommendation, I would need to know why Plainesville's health club is popular, and why Plainesville does not contain more health clubs. I would also need to know what competition NW might face in PlainesviUe.

#### **12**

12. Fifteen years ago, Omega University implemented a new procedure that encouraged students to evaluate the teaching effectiveness of all their professors. Since that time, Omega professors have begun to assign higher grades in their classes, and overall student grade averages at Omega have risen by 30 percent. Potential employers, looking at this dramatic rise in grades, believe that grades at Omega are inflated and do not accurately reflect student achievement; as a result, Omega graduates have not been as successful at getting jobs as have graduates from nearby Alpha University. To enable its graduates to secure better jobs, Omega University should terminate student evaluation of professors.

In this memo Omega University's dean points out that Omega graduates are less successful in getting jobs than Alpha University graduates, despite the fact that during the past 15 years the overall grade average of Omega students has risen by 30%. The dean also points out that during the past 15 years Omega has encouraged its students, by way of a particular procedure, to evaluate the effectiveness of their professors. The dean reasons that this procedure explains the grade-average increase, which in turn has created a perception among employers that Omega graduates are less qualified for jobs. On the basis of this line of reasoning the dean concludes

that to enable Omega graduates to find better jobs Omega must terminate its professor-evaluation procedure. This argument contains several logical flaws, which render it unconvincing.

A threshold problem with the argument involves the voluntary nature of the evaluation procedure. The dean provides no evidence about the number or percentage of Omega students who participate in the procedure. Lacking such evidence it is entirely possible that those numbers are insignificant, in which case terminating the procedure is unlikely to have any effect on the grade average of Omega students or their success in getting jobs after graduation.

The argument also assumes unfairly that the grade-average increase is the result of the evaluation procedure--rather than some other phenomenon. The dean ignores a host of other possible explanations for the increase--such as a trend at Omega toward higher admission standards, or higher quality instruction or facilities. Without ruling out all other possible explanations for the grade-average increase, the dean cannot convince me that by terminating the evaluation procedure Omega would curb its perceived grade inflation let alone help its graduates get jobs.

Even if the evaluation procedure has resulted in grade inflation at Omega, the dean's claim that grade inflation explains why Omega graduates are less successful than Alpha graduates in getting jobs is unjustified. The dean overlooks a myriad of other possible reasons for Omega's comparatively poor job-placement record. Perhaps Omega's career services are inadequate; or perhaps Omega's curriculum does not prepare students for the job market as effectively as Alpha's. In short, without accounting for other factors that might contribute to Omega graduates' comparative lack of success in getting jobs, the dean cannot justify the claim that if Omega curbs its grade inflation employers will be more likely to hire Omega graduates.

Finally, even if the dean can substantiate all of the foregoing assumptions, the dean's assertion that Omega must terminate its evaluation procedure to enable its graduates to find better jobs is still unwarranted, in two respects. First, the dean ignores other possible ways by which Omega can increase its job-placement record--for example, by improving its public relations or career-counseling services. Second, the dean unfairly equates "more" jobs with "better" jobs. In other words, even if more Omega graduates are able to find jobs as a result of the dean's recommended course of action, the kinds of jobs Omega graduates find would not necessarily be better ones.

In sum, the dean's argument is unpersuasive as it stands. To strengthen it the dean must provide better evidence that the increase in grade average is attributable to Omega's professor-evaluation procedure, and that the end result is a perception on the part of employers that Omega graduates are less qualified for jobs than Alpha graduates. To better assess the argument I would need to analyze 15-year trends in (I) the percentage of Omega students participating in the evaluation procedure, (2) Omega's admission standards and quality of education, and (3) Omega's emphasis on job training and career preparation. I would also need to know what other means are available to Omega for enabling its graduates to find better jobs.

# 25, 100, 102, 164

25. A jazz music club in Monroe would be a tremendously profitable enterprise. Currently, the nearest jazz club is 65 miles away; thus, the proposed new jazz club in Monroe, the C-Note, would have the local market all to itself. Plus, jazz is extremely popular in Monroe: over 100,000 people attended Monroe's annual jazz festival last summer; several well-known jazz musicians live in Monroe; and the highest-rated radio program in Monroe is 'Jazz Nightly,' which airs every weeknight at 7 P.M. Finally, a nationwide study indicates that the typical jazz fan spends close to \$1,000 per year on jazz entertainment.

This loan applicant claims that a jazz club in Monroe would be a profitable venture. To support this claim the applicant points out that Monroe has no other jazz clubs. He also cites various other evidence that jazz is popular among Monroe residents. Careful examination of this supporting evidence, however, reveals that it lends little credible support to the applicant's claim.

First of all, if the demand for a live jazz club in Monroe were as great as the applicant claims, it seems that Monroe would already have one or more such clubs. The fact that the closest jazz club is 65 miles away suggests a lack of interest among Monroe residents in a local jazz club. Since the applicant has not adequately responded to this concern, his claim that the proposed club would be profitable is untenable.

The popularity of Monroe's annual jazz festival and of its nightly jazz radio show might appear to lend support to the applicant's claim. However, it is entirely possible that the vast majority of festival attendees are out-of-town visitors. Moreover, the author provides no evidence that radio listeners would be interested in going out to hear live jazz. For that matter, the radio program might actually pose competition for the C-Note club, especially considering that the program airs during the evening.

Nor does the mere fact that several well-known jazz musicians live in Monroe lend significant support to the applicant's claim. It is entirely possible that these musicians perform elsewhere, perhaps at the club located 65 miles away. This would go a long way toward explaining why Monroe does not currently have a jazz club, and it would weaken the applicant's assertion that the C-Note would be profitable.

Finally, the nationwide study showing that the average jazz fan spends \$1,000 each year on jazz entertainment would lend support to the applicant's claim only if Monroe residents typify jazz fans nationwide. However, the applicant provides no credible evidence that this is the case.

In conclusion, the loan applicant's argument is not persuasive. To bolster it he must provide clearer evidence that Monroe residents would patronize the C-Note on a regular basis. Such evidence might include the following: statistics showing that a significant number of Monroe residents attend the jazz festival each year; a survey showing that fans of Monroe's jazz radio program would go out to hear live jazz if they had the chance; and assurances from well-known local jazz musicians that they would play at the C-Note if given the opportunity.

### 31

31. In our region of Trillura, the majority of money spent on the schools that most students attend—the city-run public schools—comes from taxes that each city government collects. The region's cities differ, however, in the budgetary priority they give to public education. For example, both as a proportion of its overall tax revenues and in absolute terms, Parson City has recently spent almost twice as much per year as Blue City has for its public schools—even though both cities have about the same number of residents. Clearly, Parson City residents place a higher value on providing a good education in public schools than Blue City residents do.

This argument concludes that Parson City residents value public-school education more highly than Blue City residents do. To justify this conclusion the argument points out that in both cities the majority of funds for public schools comes from taxes, and that Blue City budgets only half as much money per year for its public schools as Parson City, even though the population in both cities is about the same. The argument relies on a series of unsubstantiated assumptions, which considered together render the argument wholly unconvincing.

One such assumption is that the total budget for the two cities is about the same. It is entirely possible that Blue City's total budget is no more than half that of Parson City. If so, then the fact that Blue City budgets only half as much as Parson City for its public schools would suggest at least the same degree of care about public-school education among Blue City's residents as among Parson City's residents. Even if Parson City devotes a greater percentage of its budget each year for its schools, the argument relies on the additional assumption that this percentage is a reliable indicator of the value a city's residents place on public-school education. Yet it is entirely possible, for example, that Blue City's schools are already well funded, or that Blue City has some other, extremely urgent problem which requires additional funding despite a high level of concern among its residents about its public schools. Absent evidence that the two city's various needs are similar, any comparison between the level of concern about public schools among residents in the two dries based simply on funds spent for public schools is dubious at best.

A third assumption upon which the argument rests is that the percentage of residents who attend public schools is about the same in both cities. The argument indicates only that the total population of the two dries is about the same. If a comparatively small percentage of Blue City residents attend public schools, then the comparatively small amount of money Blue City devotes to those schools might be well justified despite an equal level of concern about the quality of public-school education among residents in the two dries.

Finally, although the argument states that in both cities "the majority" of money spent on public schools comes from taxes, perhaps the actual percentage is smaller in Blue City than in Parson City, and other such funds come from residents' donations, earmarked for public education. Compliance with tax laws is scant evidence of taxpayer support of public-school education, while voluntary giving is strong evidence. Thus it is possible that Blue City residents donate more money per capita for public-school education than Parson City residents do. If so, this fact would seriously weaken the argument that Blue City residents place a comparatively low value on public-school education.

In sum, the argument is unpersuasive as it stands. To strengthen it the argument's proponent must provide clear evidence that the percentage of the budget allotted to public schools, as well as the percentage of money spent on public schools and derived from taxes, is about the same in both dries. To better assess the argument I would need to compare the neediness of Blue City's public schools with that of Parson's public schools. I would also need more information about other urgent financial needs in each city, and about the other sources of the money applied toward public-school education in each city.

## 33

33. Several recent surveys indicate that home owners are increasingly eager to conserve energy. At the same time, manufacturers are now marketing many home appliances, such as refrigerators and air conditioners, that are almost twice as energy efficient as those sold a decade ago. Also, new technologies for better home insulation and passive solar heating are readily available to reduce the energy needed for home heating. Therefore, the total demand for electricity in our area will not increase—and may decline slightly. Since our three electric generating plants in operation for the past twenty years have always met our needs, construction of new generating plants will not be necessary.

The author of this memo concludes that there is no need for an additional electric power plant in the area because total electricity demand in the area is not likely to increase in the future. To support this conclusion the author cites the availability of new energy-efficient appliances and systems for homes, and the eagerness of area homeowners to conserve energy. However, the argument relies on several doubtful assumptions, and is therefore unpersuasive as it stands.

First, the author's projection for flat or declining total demand for electricity ignores business and commercial electricity usage. It is entirely possible that area businesses will increase their use of electricity in the future and that total electricity consumption will actually increase despite flat or declining residential demand. The author's projection also ignores the possibility that the number of area residents will increase in the future, thereby resulting in an increase in electricity usage regardless of whether more efficient appliances are used in area homes. Without taking into account these possibilities, the author cannot persuade me that total demand for electricity will not increase in the future.

Secondly, the author's conclusion relies on the assumption that area residents will actually purchase and install the energy-saving appliances and systems the author describes. Admittedly, the author points out that homeowners are "eager to conserve energy."Nevertheless, these homeowners might not be able to afford these new systems and appliances. Moreover, the energy-efficient insulation that the author mentions might be available only for new home construction, or it might be a gas system. In either case, the mere availability of this system might have no effect on total electric usage in existing homes.

A final problem involves the assertion that no new electric power plants are needed because the three existing plants, which are 20 years old, have always been adequate for the area's electric needs. The author fails to account for the possibility that the old plants are themselves less energy efficient than a new plant using new technology would be, or that the old plants need to be replaced due to their age, or for some other reason. Besides, this assertion ignores the possible influx of residents or businesses in the future, thereby increasing the demand for electricity beyond what the three existing plants can meet.

In conclusion, the argument is unconvincing as it stands. To strengthen it the author must show that area residents can afford the new energy-efficient appliances and systems, and that area commercial demand for electricity will not increase significantly in the foreseeable future.

In order to better evaluate the argument, we would need to know whether the new energy-efficient technologies are available to businesses as well, and whether areabusinesses plan to use them. We would also need more information about expected changesin the area's population, and about the condition and energy-efficiency of the three currentelectric power plants.

#### 39、174

39. A recent sales study indicates that consumption of seafood dishes in Bay City restaurants has increased by 30 percent during the past five years. Yet there are no currently operating city restaurants whose specialty is seafood. Moreover, the majority of families in Bay City are two-income families, and a nationwide study has shown that such families eat significantly fewer home-cooked meals than they did a decade ago but at the same time express more concern about healthful eating. Therefore, the new Captain Seafood restaurant that specializes in seafood should be quite popular and profitable.

This argument's conclusion is that a new Bay City restaurant specializing in seafood would be both popular and profitable. To justify this conclusion the argument points out that seafood consumption in Bay City's restaurants has risen by 30% during the last five years. Also, the argument points out that most Bay City families are two-income families, and cites a national survey showing that two-income families eat out more often and express more concern about eating healthily than they did ten years ago. I find the argument unpersuasive, for several reasons.

First, a 30% increase in seafood consumption at Bay City restaurants does not necessarily indicate a sufficient demand for a new Bay City restaurant serving seafood dishes only. Although a 30% increase seems significant, the actual level of consumption might nevertheless be very low. This scenario is quite possible, especially considering that there are currently no seafood restaurants in Bay City. Lacking evidence that a significant number of the city's restaurant patrons are ordering seafood, the argument's conclusion that a new seafood restaurant would be popular and profitable is unjustified.

Secondly, even if current demand would otherwise support an increase in the availability of seafood at Bay City's restaurants, the argument unfairly assumes that Bay City's restaurant patrons who order seafood would frequent the new restaurant. Perhaps the vast majority of these patrons would remain loyal to their favorite restaurant. Thus lacking evidence that these

patrons would be willing to try the new restaurant the argument's claim that a new seafood 162 restaurant would be popular is dubious.

Thirdly, the nationwide study showing clear trends among two-income families toward dining out and eating healthily does not necessarily apply to Bay City. It is quite possible that Bay City's two-income families do not follow these general trends. For that matter, in Bay City the trend might be just the opposite. Thus the nationwide trends that the argument cites amount to scant evidence that Bay City residents in particular would frequent a new seafood restaurant in their city.

Fourth, even if most of Bay City's families are following the nationwide trends indicated above, it is unreasonable to infer that these families will necessarily patronize a new seafood restaurant in Bay City. For all we know Bay City might boast a variety of health-oriented restaurants that do not specialize in seafood. For that matter, perhaps Bay City's existing restaurants are responding to the trends by providing more healthful dishes. Moreover, perhaps either or both of these trends will soon reverse themselves--at least in Bay City—for whatever reason. Any of these scenarios, if true, would cast considerable doubt on the argument's conclusion that a new seafood restaurant in Bay City would be popular and profitable.

Finally, even if Bay City families flock to the new seafood restaurant, the restaurant would not necessarily be profitable as a result. Profitability is a function of both revenue and expense. Thus it is entirely possible that the restaurant's costs of obtaining high-quality, healthful seafood, or of promoting the new restaurant, might render it unprofitable despite its popularity. Without weighing revenue against expenses the argument's conclusion is premature at best.

In sum, the argument is unpersuasive as it stands. To bolster it the argument's author must show--perhaps by way of a reliable citywide study--that the demand among restaurant patrons for seafood is sufficient to support a new seafood restaurant, and that a sufficient number of people who order fish at Bay City restaurants will be able and willing to at least try the new restaurant. The author would also bolster the argument by providing reliable evidence that Bay City reflects the nationwide trends cited, and that these trends will continue in the foreseeable future in Bay City. Finally, to better assess the argument I would need detailed cost and revenue estimates for a new Bay City seafood restaurant--to determine the likelihood that even a popular such restaurant would turn a profit.

### 42

42. Erosion of beach sand along the shores of Tria Island is a serious threat to our island and our tourist industry. In order to stop the erosion, we should charge people for using the beaches. Although this solution may annoy a few tourists in the short term, it will raise money for replenishing the sand. Replenishing the sand, as was done to protect buildings on the nearby island of Batia, will help protect buildings along our shores, thereby reducing these buildings' risk of additional damage from severe storms. And since beaches and buildings in the area will be preserved, Tria's tourist industry will improve over the long term.

This letter's author recommends charging fees for public access to Tria's beaches as an

effective means of raising funds for the purpose of saving Tria's tourist industry. The author reasons that beach-access fees would reduce the number of beachgoers while providing revenue for replenishing beach sand needed to protect nearby buildings, thereby enhancing the area's attractiveness to tourists. To support this argument the author points out that beach 185 sand was replenished on the nearby island of Batia, thereby reducing the risk of storm damage to building there. I find the argument unconvincing for several reasons.

First of all, the author makes certain dubious assumptions about the impact of beach access fees. On the one hand, the author ignores the possibility that charging fees might deter so many tourists that Tria would be worse off overall. On the other hand, perhaps the vast majority of Tria's tourists and residents alike would happily pay for beach access, in which case Tria's beaches would continue to be no less crowded than they are now. Under either scenario, adopting the author's proposal might harm, rather than benefit, Tria's tourist industry in the long run.

Secondly, the mere fact that on nearby Batia replenishing beach sand has served to protect shoreline buildings is scant evidence that Tria would achieve its goals by following Batia's example. Perhaps the same course of action would be ineffective on Tria due to geological differences between the two islands. Or perhaps Batia is in a far better position than Tria financially to replenish its sand on a continual basis. In short, lacking evidence that conditions on the two islands are relevantly similar, the author cannot convince me on the basis of Batia's experience that the proposed course of action would be effective in attaining Tria's goals.

Thirdly, even if replenishing Tria's beach sand is financially feasible and would protect nearby buildings, the author provides no evidence that Tria's tourist industry would be saved thereby. Perhaps Tria's tourist appeal has little to do with the beach and nearby buildings; for that matter, perhaps Tria's tourist appeal would be greater with fewer buildings along the coast. Since the author provides no firm evidence that replenishing sand and protecting nearby buildings would be more beneficial to Tria's tourist industry than allowing nature to take its course, I do not find the author's argument the least bit compelling.

In sum, the argument is unconvincing as it stands. To strengthen it the author must show that charging beach-access fees would reduce the number of beachgoers, but not to the extent of undermining the goal of raising sufficient funds to maintain an attractive coastal area. The author must also provide better evidence that replenishing sand would indeed protect nearby buildings, and that the net result would be the enhancement of Tria's tourist industry.

### 43

43. Two years ago, consultants predicted that West Egg's landfill, which is used for garbage disposal, would be completely filled within five years. During the past two years, however, the town's residents have been recycling twice as much material as they did in previous years. Next month the amount of recycled material—which includes paper, plastic, and metal—should further increase, since charges for pickup of other household garbage will double. Furthermore, over 90 percent of the respondents to a recent survey said that they would do more recycling in the future. Because of our town's strong commitment to recycling, the available space in our

landfill should last for considerably longer than predicted.

In this memo West Egg's mayor reasons that West Egg's residents are now strongly committed to recycling, and projects that the city's landfill will not be filled to capacity until considerably later than anticipated two years ago. To support this projection the mayor cites (1) a twofold increase in aluminum and paper recycling by West Egg residents over the last two years, (2) an impending twofold increase in charges for trash pickup, and (3) a recent survey in which 90% of respondents indicated that they intend to do more recycling in the future. For several reasons, I am not convinced that the mayor's projection is accurate.

To begin with, in all likelihood aluminum and paper account for only some of the materials West Egg's residents can recycle. Perhaps recycling of other recyclable materials--such as plastic and glass--has declined to the point that the total amount of recycled materials has also declined. If so, then the mayor could hardly justify the claim that West Egg's residents are becoming more committed to recycling.

Another problem with the argument is that an increase in the amount of recycled materials does not necessarily indicate a decrease in the total amount of trash deposited in the city's landfill. Admittedly, if West Egg residents previously disposed of certain recyclable materials that they now recycle instead, then this shift from disposal to recycling would serve to reduce the amount of trash going to the landfill. However, the mayor provides no evidence of such a shift.

Moreover, the argument overlooks the strong possibility that the recycling habits of West Egg residents are not the only factor affecting how quickly the landfill will reach capacity. Other such factors might include population and demographic shifts, the habits of people from outside West Egg whose trash also feeds the landfill, and the availability of alternative disposal methods such as burning. Thus regardless of the recycling efforts of West Egg residents the landfill might nevertheless reach full capacity by the date originally forecast.

Yet another problem with the argument involves the mayor's implicit claim that increased charges for trash pickup will serve to slow the rate at which the landfill is reaching capacity. This claim relies on the unlikely assumption that West Egg residents have the option of 149 recycling--or disposing in some other way--much of what they would otherwise send to the landfill. However, it is likely these residents have no practical choice but to send some refuse to the landfill. The greater the amount, the less likely higher trash charges would have any effect on how quickly the landfill reaches capacity.

Finally, the mayor provides no evidence that the survey's respondents are representative of the overall group of people whose trash goes to the city's landfill. Lacking such evidence, it is entirely possible that people inclined to recycle were more willing to respond to the survey than other people were. In short, without better evidence that the survey is statistically reliable the mayor cannot rely on it to draw any firm conclusions about the overall recycling commitment of West Egg residents--let alone about how quickly the landfill will reach capacity.

In sum, the mayor's projection is simply not credible, at least based on the memo. Rather than relying solely on questionable recycling statistics, the mayor should provide direct evidence that the amount of trash going to the landfill is declining and that this trend will not reverse itself anytime soon. To better assess the accuracy of the mayor's projection it would be useful to know who besides West Egg residents contributes trash to the land fill, and whether the amount of trash those people contribute is declining or is likely to decline in the near future.

#### 44

44. Over the past year, the Crust Copper Company (CCC) has purchased over 10,000 square miles of land in the tropical nation of West Fredonia. Mining copper on this land will inevitably result in pollution and, since West Fredonia is the home of several endangered animal species, in environmental disaster. But such disasters can be prevented if consumers simply refuse to purchase products that are made with CCC's copper unless the company abandons its mining plans.

The author of this newsletter excerpt concludes that if consumers refuse to buy products made with Consolidated Copper Company (CCC) copper the company will eventually abandon its mining plans in the nation of West Fredonia, thereby preventing pollution and an "environmental disaster" in that country. To justify this conclusion the author points out that CCC has recently bought more than a million square miles of land in West Fredonia, and that West Fredonia is home to several endangered animal species. I find this argument specious on several grounds.

First, the author provides no evidence that the West Fredonia land that CCC has acquired amounts to a significant portion of land inhabited by endangered animal species, or that CCC's land is inhabited by endangered animal species at all. Nor does the author provide clear evidence that CCC's mining activities are of the type that might cause pollution, the extinction of animal species, or any other environmental damage. Lacking such evidence the author simply cannot convince me that CCC must abandon its plans in order that such damage be prevented.

Secondly, even assuming CCC's planned mining activities in West Fredonia will cause pollution and will endanger several animal species, it is nevertheless impossible to assess the author's broader contention that CCC's activities will result in "environmental disaster," at least without an agreed-upon definition of that term. If by "environmental disaster" the author simply means some pollution and the extinction of several animal species, then the claim would have merit; otherwise, it would not. Absent either a clear definition of the term or dear evidence that CCC's activities would carry grave environmental consequences by any reasonable definition, the author's contention that CCC's activities will result in environmental disaster is simply unjustified.

Thirdly, the author's position that environmental disaster is "inevitable" absent the prescribed boycott precludes the possibility that other measures can be taken to prevent CCC from carrying out its plans, or to offset any harm that CCC causes should it carry out its plans. Yet the author fails to provide assurances that no other means of preventing the predicted disaster are available. Lacking such evidence the author cannot reasonably conclude that the proposed boycott is needed to prevent that disaster.

Finally, even if the prescribed boycott is needed to prevent pollution and environmental disaster in West Fredonia, the author assumes too hastily that the boycott will suffice for these purposes. Perhaps additional measures would be required as well. For instance, perhaps consumers would also need to boycott other companies that pollute West Fredonia's environment. In short, without any evidence that the recommended course of action will be enough to prevent the predicted problems, the author's conclusion remains dubious at best.

In sum, as it stands the argument is wholly unpersuasive. To bolster it the author must show that CCC's planned mining activities on its newly acquired land will pollute and will threaten endangered animal species. The author must also define "environmental disaster" and show that the inevitable results of CCC's activities, absent the proposed boycott, would meet that definition. To better assess the argument it would be useful to know what other means are available for preventing CCC from mining in West Fredonia or, in the alternative, for mitigating the environmental impact of those mining activities. A/so useful would be any information about the likelihood that the boycott would be effective in accomplishing its intended objectives.

#### **50**

50. An ancient, traditional remedy for insomnia—the scent of lavender flowers—has now been proved effective. In a recent study, 30 volunteers with chronic insomnia slept each night for three weeks on lavender-scented pillows in a controlled room where their sleep was monitored electronically. During the first week, volunteers continued to take their usual sleeping medication. They slept soundly but wakened feeling tired. At the beginning of the second week, the volunteers discontinued their sleeping medication. During that week, they slept less soundly than the previous week and felt even more tired. During the third week, the volunteers slept longer and more soundly than in the previous two weeks. Therefore, the study proves that lavender cures insomnia within a short period of time.

The speaker concludes that the scent of lavender provides an effective short-term cure for insomnia. To support this conclusion the speaker cites a three-week experiment in which researchers monitored the apparent effects of lavender on 30 insomniacs, who slept on lavender-scented pillows each night of the experiment. The speaker's account of the experiment reveals several critical problems with it. Together, these problems serve to undermine the speaker's argument.

A threshold problem involves the definition of insomnia. The speaker fails to define this critical term. If insomnia is defined as an inability to fall asleep, then how soundly or long a person sleeps, or how fired a person feels after sleep, is irrelevant to whether the person suffers from insomnia. In short, without a dear definition of insomnia it is impossible to assess the strength of the argument.

Another fundamental problem is that the speaker omits to inform us about the test subjects' sleep patterns just prior to the experiment. It is impossible to conclude with any confidence that the subjects benefited from sleeping on lavender-scented pillows without comparing how they sleept with the pillows to how they sleep without them.

Yet another problem involves the fact that subjects slept more soundly and awakened less fired the first week than the second, and that they used their regular sleep medication the first week but not the second. This evidence tends to show only that the subjects' other sleep medications were effective; it proves nothing about the effectiveness of lavender.

A fourth problem involves the speaker's account of the experiment's third week, during which the speaker reports only that the subjects slept longer and more soundly than in the

previous two weeks. We are not informed whether the subjects took any medication during the third week. Assuming they did not, any one of a variety of factors other than the lavender-scented pillows might explain the third week's results. Perhaps the subjects were simply making up for sleep they lost the previous week when they discontinued their regular medication. Or perhaps the subjects were finally becoming accustomed to the lavender-scented pillows, which actually disturbed sleep initially. In short, without ruling out other explanations for the third week's results, the speaker cannot confidently identify what caused the subjects to sleep longer and more soundly that week.

Two final problems with the argument involve the experimental process. The experiment's results are reliable only if all other factors that might affect sleep patterns remained constant during the three-week period, and if the number of experimental subjects is statistically significant. Without evidence of the experiment's methodological and statistical reliability, the speaker's conclusion is unjustifiable.

In conclusion, the argument is unconvincing as it stands. To strengthen the assertion that lavender-scented pillows provide a short-term cure for insomnia, the author must provide evidence that the test subjects' insomnia was worse just prior to the experiment than at the conclusion of the experiment, and that the number of subjects is statistically sufficient to warrant the conclusion. To better assess the argument, we would need a clear definition of insomnia, as well as more information about whether the researchers conducted the experiment in a controlled environment.

## 53、144、151

53. The citizens of Forsythe have adopted more healthful lifestyles. Their responses to a recent survey show that in their eating habits they conform more closely to government nutritional recommendations than they did ten years ago. Furthermore, there has been a fourfold increase in sales of food products containing kiran, a substance that a scientific study has shown reduces cholesterol. This trend is also evident in reduced sales of sulia, a food that few of the most healthy citizens regularly eat.

In this argument the speaker concludes that Forsythe citizens have adopted healthier lifestyles. To justify this contusion the speaker cites a recent survey of Forsythe citizens suggesting that their eating habits now conform more closely to government nutritional recommendations than they did ten years ago. The speaker also points out that sales of Kiran, a substance known to reduce cholesterol, have increased fourfold, while sales of sulia, which few of Forsythe's healthiest citizens eat regularly, have been declining. This argument is unpersuasive for several reasons.

First, the survey must be shown to be reliable before I can accept any contusions based upon it. Specifically, the responses must be accurate, and the respondents must be statistically significant in number and representative of the overall Forsythe citizenry in terms of eating habits. Without evidence of the survey's reliability, it is impossible to draw any firm conclusions about the current dietary habits of Forsythe citizens based on the survey.

Second, the argument relies on the dubious assumption that following the government's nutrition recommendations promotes health to a greater extent than following any other nutrition regime. It is entirely possible that the dietary habits of Forsythe citizens were healthier ten years ago than they are now. Thus without evidence to substantiate this assumption the speaker cannot reasonably conclude that the diet of Forsythe's citizens has become more nutritional.

Third, the speaker assumes too hastily that increasing sales of products with kiran indicates healthier eating habits. Perhaps Forsythe citizens are eating these foods in amounts or at intervals that undermine the health benefits of kiran. Without ruling out this possibility the speaker cannot reasonably conclude with any confidence that increased kiran consumption has resulted in improved health for Forsythe's citizens.

Fourth, the mere fact that few of Forsythe's healthiest citizens eat sulia regularly does not mean that sulia is detrimental to health as the speaker assumes. It is possible that sulia has no effect on health, or that it actually promotes health. Lacking firm evidence that sulia affects health adversely, and that healthy people avoid sulia for this reason, the speaker cannot justify any conclusions about the health of Forsythe's citizens from the mere fact that sulia sales are declining.

Finally, even if the dietary changes to which the speaker refers are healthful ones, the speaker overlooks the possibility that Forsythe citizens have been making other changes in their dietary or other habits that offset these healthful changes. Unless all other habits affecting health have remained unchanged, the speaker cannot justifiably conclude that the overall lifestyle of Forsythe's citizenry has become healthier.

In sum, the argument is unconvincing as it stands. To strengthen it the speaker must show that the survey accurately reflects the dietary habits of Forsythe's citizens, and that by following the government's nutritional recommendations more closely these citizens are in fact healthier. The speaker must also show that Forsythe's citizens have not made other dietary or other lifestyle changes that offset healthful changes. Finally, to better assess the argument I would need more information about the manner and extent to which Forsythe's citizens now consume kiran, and about the healthfulness of sulia.

## 54、165

54. Humans arrived in the Kaliko Islands about 7,000 years ago, and within 3,000 years most of the large mammal species that had lived in the forests of the Kaliko Islands had become extinct. Yet humans cannot have been a factor in the species' extinctions, because there is no evidence that the humans had any significant contact with the mammals. Further, archaeologists have discovered numerous sites where the bones of fish had been discarded, but they found no such areas containing the bones of large mammals, so the humans cannot have hunted the mammals. Therefore, some climate change or other environmental factor must have caused the species' extinctions.

extinction of large mammal species in the Kaliko islands 3,000 years ago. To justify this conclusion, the speaker points out that no evidence exists that humans hunted or had other significant contact with these mammals. The speaker also points out that while archeologists have found bones of discarded fish in the islands, they have not found any discarded mammal bones there. For three reasons, this evidence lends little credibility to the speaker's argument.

First, the argument concludes too hastily that humans could not have had any significant contact with these mammals. In relying on the lack of physical evidence such as bones, the speaker overlooks the possibility that humans exported mammals--particularly their bones--during this time period. Without ruling out this alternative explanation for the disappearance of these species from the islands, the speaker cannot justify the conclusion that humans were not a factor in their extinction from the islands.

Secondly, the argument relies on the assumption that without significant contact with these other species humans could not have been a factor in their extinction. But the speaker provides no evidence that this is the case. Moreover, perhaps humans drove these other species away from their natural habitat not by significant contact but merely by intruding on their territory. Or perhaps humans consumed the plants and animals on which these species relied for their subsistence. Either scenario would explain how humans could have been a factor in the extinction of these species despite a lack of significant contact.

Thirdly, the speaker assumes that the bones of fish that archeologists have found discarded on the island were discarded by humans, and not by some other large mammal. However, the speaker provides no evidence to substantiate this assumption. Given other possible explanations for these discarded fish bones, this evidence in itself lends little credible support to the speaker's theory about the extinction of large species of mammals.

In conclusion, the argument is unconvincing as it stands. To strengthen it, the speaker must rule out the possibility that humans exported the bones of these other species. To better evaluate the argument, we would need more information about the diet of humans and of the now-extinct mammals during that time period; particularly, we would need to know whether those other mammals also fed on the fish whose discarded bones have been found on the islands.

## 74、147、148、149、156

74. The president of Grove College has recommended that the college abandon its century-old tradition of all-female education and begin admitting men. Pointing to other all-female colleges that experienced an increase in applications after adopting coeducation, the president argues that coeducation would lead to a significant increase in applications and enrollment. However, the director of the alumnae association opposes the plan. Arguing that all-female education is essential to the very identity of the college, the director cites annual surveys of incoming students in which these students say that the school's all-female status was the primary reason they selected Grove. The director also points to a survey of Grove alumnae in which a majority of respondents strongly favored keeping the college all female.

In this memo Grove College's administration recommends preserving its tradition of admitting only female students. The administration admits that most faculty members are in favor of a co-educational policy as a means of encouraging more students to apply to Grove. But the administration defends its recommendation by citing a student government survey in which 80% of student respondents and more than 50% of alumni respondents reported that they favor the status quo. The administration reasons that preserving the status quo would improve student morale and help ensure continued alumni donations to Grove. This argument is flawed in several critical respects.

First, the memo provides no evidence that the results of either of the two surveys are statistically reliable. For example, suppose newer students tend to be content with the all female policy while students who have attended Grove for a longer time would prefer a co-educational policy. If a disproportionate number of the survey's respondents were newer students, then the survey results would distort the student body's opinion as a group. With respect to the alumni survey, perhaps fewer alumni who donate substantial sums to Grove responded to the survey than other alumni did. If so, then the survey results would distort the comparison between the total amount of future donations under the two scenarios. Besides, the memo provides no information about what percentage of Grove's students and alumni responded to the surveys; the lower the percentages, the less reliable the results of the surveys.

Secondly, the administration hastily assumes that Grove's alumni as a group would be less inclined to donate money merely if Grove begins admitting male students. This aspect of Grove's admission policy is only one of many factors that might affect alumni donations. For example, since Grove's faculty are generally in favor of changing the policy, perhaps the change would improve faculty morale and therefore the quality of instruction, in mm having a positive impact on alumni donations. And, if the particular alumni who are in a position to make the largest contributions recognize faculty morale as important, an increase in donations by these individuals might very well offset a decline in smaller donations by other alumni.

Finally, the administration's argument that student morale would improve under the status quo is logically unsound in two respects. First, the administration provides no reason why morale would improve, as opposed to remaining at its current level, if the status quo is simply maintained. Second, the administration cannot logically determine how the morale of the student body would be affected under a co-educational policy until it implements that policy and takes into account the morale of the new male students along with that of all female students.

In sum, the administration has failed to convince me that maintaining Grove's all-female policy would be more likely to improve student morale and help ensure continued alumni donations than moving to a co-educational policy. To better assess the argument I would need detailed information about the two surveys to determine whether the respondents as groups were representative of their respective populations. To bolster its recommendation the administration must provide better evidence--perhaps by way of a reliable alumni survey that takes into account respondents' financial status and history of clonadons--that prospective donor alumni would be strongly opposed to a co-educational policy and would be less inclined to donate money were Grove to implement such a policy.

## **75**

75. The department of agriculture in Batavia reports that the number of dairy farms throughout the country is now 25 percent greater than it was 10 years ago. During this same time period, however, the price of milk at the local Excello Food Market has increased from \$1.50 to over \$3.00 per gallon. To prevent farmers from continuing to receive excessive profits on an apparently increased supply of milk, the Batavia government should begin to regulate retail milk prices. Such regulation is necessary to ensure fair prices for consumers.

This editorial recommends that Batavia's government regulate milk prices because profits from milk sales are excessive given the apparently adequate supply. The editorial also claims that price regulation would help ensure an adequate supply of milk. To support these assertions the author cites the fact that over the past ten years the number of dairy farms in Batavia has increased by 25% while at Excello Food Market milk prices have increased by 100%. However, the argument relies on a series of unsubstantiated assumptions, which render it unconvincing as it stands.

First of all, the author assumes that Excello's milk prices reflect those throughout Batavia. However, the author provides no evidence that this is the case. To the extent that Excello's milk prices currently exceed nationwide averages the author's argument for government regulation of milk prices would be undermined.

In the second place, even if Excello's milk prices reflect those in Batavia generally, in claiming that milk prices are particularly "excessive" the author assumes that milk-sale profits exceed profits from the sale of other goods in Batavia to a significant degree. But the author provides no evidence to substantiate this assumption. Perhaps other prices have risen commensurably, or perhaps even more on a percentage basis, during the same t/me period. Moreover, perhaps profit margins from the sale of other goods are even greater than profits from milk sales. In either event the author could not justifiably rely on the mere fact that milk prices have increased by 100% to support the claim that milk sale profits are excessive.

In the third place, the author assumes that an increase in milk prices results in increased profits. However, this is not necessarily the case. It is entirely possible that the costs associated with producing and delivering milk have increased as well over the last ten years. Thus the strength of the author's claim of excessive milk-sale profits depends on a cost-benefit analysis that the author does not provide.

In the fourth place, based on the fact that the number of dairy farms has increased the author infers that the supply of milk has also increased. However, this is not necessarily the case. It is possible that dairy farm production has shifted away from milk to other dairy products, and that the supply of milk has actually declined over this time period. To the extent that this is the case, then the author's supply-and-demand argument that milk prices are excessive is unconvincing.

Finally, in asserting that price regulation would help ensure an adequate supply of milk the author overlooks the possibility that milk producers would respond to the regulation by producing less milk, depending on the extent to which demand increases as a result of lower milk prices. If regulation has the effect of lowering profits, then common sense tells me that milk

producers might be less inclined to produce milk. Without ruling out this possible scenario, the author cannot convince me that the recommendation would help ensure an adequate supply of milk.

In conclusion, the recommendation for regulation of milk prices is not well supported. To convince me that the proposed regulation is needed to ensure a reasonably priced milk supply, the author must provide clear statistical evidence that Excello's milk prices reflect nationwide milk prices and that profits from milk sales are in fact excessive. To better evaluate the recommendation, I would need more information about how the proposed regulation would effect both the supply of milk and the demand for milk in Batavia.

# Argument 范文精选

#### 3, 171, 175

3. Over the past two years, the number of shoppers in Central Plaza has been steadily decreasing while the popularity of skateboarding has increased dramatically. Many Central Plaza store owners believe that the decrease in their business is due to the number of skateboard users in the plaza. There has also been a dramatic increase in the amount of litter and vandalism throughout the plaza. Thus, we recommend that the city prohibit skateboarding in Central Plaza. If skateboarding is prohibited here, we predict that business in Central Plaza will return to its previously high levels.

This editorial concludes that the city should ban skateboarding from its downtown Central Plaza in order to attract visitors to that area, to return the area to its "former glory," and to make it "a place where people can congregate for fun and relaxation." To justify this conclusion the editorial points out that skateboarders are nearly the only people one sees anymore at Central Plaza, and that the Plaza is littered and its property defaced. The editorial also points out that the majority of downtown merchants support the skate boarding ban. This argument is flawed in several critical respects.

First, the editorial's author falsely assumes that a ban on skateboarding is both necessary and sufficient to achieve the three stated objectives. Perhaps the city can achieve those objectives by other means as well--for example, by creating a new mall that incorporates an attractive new skateboard park. Even if banning skateboarders altogether is necessary to meet the city's goals, the author has not shown that this action by itself would suffice. Assuming that the Plaza's reputation is now tarnished, restoring that reputation and, in turn, enticing people back to the Plaza might require additional measures--such as removing litter and graffiti, promoting the Plaza to the public, or enticing popular restaurant or retail chains to the Plaza.

Secondly, the editorial assumes too hastily that the Plaza's decline is attributable to the skateboarders--rather than to some other phenomenon. Perhaps the Plaza's primary appeal in its glory days had to do with particular shops or eateries, which were eventually replaced by less

appealing ones. Or perhaps the crime rate in surrounding areas has risen dramatically, for reasons unrelated to the skateboarders' presence at the Plaza. Without ruling out these and other alternative explanations for the Plaza's decline, the editorial's author cannot convince me that a skateboard ban would reverse that decline.

Thirdly, the editorial's author might be confusing cause with effect--by assuming that the skateboarders caused the abandonment of the Plaza, rather than vice versa. It is entirely possible that skateboarders did not frequent the Plaza until it was largely abandoned—and because it had been abandoned. In fact this scenario makes good sense, since skateboarding is most enjoyable where there are few pedestrians or motorists to get in the way.

Fourth, it is unreasonable to infer from the mere fact that most merchants favor the ban that the ban would be effective in achieving the city's objectives. Admittedly, perhaps these merchants would be more likely to help dean up the Plaza area and promote their businesses were the city to act in accordance with their preference. Yet lacking any supporting evidence the author cannot convince me of this. Thus the survey amounts to scant evidence at best that the proposed ban would carry the intended result.

Finally, the author recommends a course of action that might actually defeat the city's objective of providing a fun and relaxing place for people to congregate. In my experience skateboarding contributes to an atmosphere of fun and relaxation, for adults and children alike, more so than many other types of ambiance. Without considering that continuing to allow skateboarding--or even encouraging this activity--might achieve the city's goal more effectively than banning the activity, the author cannot convincingly conclude that the ban would be in the city's best interests.

In sum, the argument is a specious one. To strengthen it, the editorial's author must provide dear evidence that skateboarding, and not some other factor, is responsible for the conditions marking the Plaza's decline. The author must also convince me that no alternative means of restoring the Plaza are available to the city, and that the proposed ban by itself would suffice to attract tourists and restore the Plaza to its former glory. Finally, to better assess the argument it would be useful to know the circumstances under which the downtown merchants would be willing to help the city achieve its objectives.

#### 4

4. Of the two leading real estate firms in our town—Adams Realty and Fitch Realty—Adams Realty is clearly superior. Adams has 40 real estate agents; in contrast, Fitch has 25, many of whom work only part-time. Moreover, Adams' revenue last year was twice as high as that of Fitch and included home sales that averaged \$168,000, compared to Fitch's \$144,000. Homes listed with Adams sell faster as well: ten years ago I listed my home with Fitch, and it took more than four months to sell; last year, when I sold another home, I listed it with Adams, and it took only one month. Thus, if you want to sell your home quickly and at a good price, you should use Adams Realty.

this claim the author cites certain statistics about the number and working hours of the firms' agents, and the number and sales prices of homes sold by the two firms. The author also cites anecdotal evidence involving her own experience with Fitch and Adams. Close scrutiny of this evidence reveals that it lends little credible support for the author's assertion.

The author bases her claim partly on the fact that Adams has more agents than Fitch, and that many of Fitch's agents work only part-time. However, the author provides no evidence that the quality of a real-estate firm is directly proportional to the number of its agents or the number of hours per week that its agents work. Lacking such evidence, it is equally possible that a smaller firm is more effective than a larger one, and that a part-time agent is more effective than a full-time agent. Besides, the author does not provide any information about how many Adams agents work part-time.

To further support her claim the author cites the fact that Adams sold more properties last year than Fitch. However, the author overlooks the possibility that last year's sales volume amounted to an aberration, and that in most other years Adams has actually sold fewer properties than Fitch. Moreover, the disparity in sales volume can readily be explained by factors other than the comparative quality of the two firms. Perhaps Adams serves a denser geographic area, or an area where turnover in home-ownership is higher for reasons unrelated to Adams' effectiveness. Or perhaps sales volume is higher at Adams simply because it employs more agents, and each Adams agent actually sells fewer homes on average than each Fitch agent does. Without ruling out such alternative explanations for the disparity in sales volume, the author cannot defend the conclusion that based on this evidence that Adams is superior to Fitch.

In further support of her claim the author points out that the average sales price of a home sold by Adams is greater than the average price of a home sold by Fitch. However, this evidence shows only that the homes that Adams sells are more valuable on average than the ones that Fitch sells, not that Adams is more effective in selling homes than Fitch. Moreover, it is possible that a few relatively high-priced or low-priced properties skewed these averages, rendering any conclusions about the comparative quality of the two firms based on these averages unfair.

For additional support the author points out that it took Fitch Realty considerable longer to sell one of the author's homes than it took Adams Realty to sell another one of her homes ten years earlier. However, this disparity is explainable by other plausible factors, such as changing economic conditions during that ten-year period, or a difference in the desirability of the two properties. Without establishing that all other factors affecting the speed of a sale were essentially the same for the two homes, the author cannot rely on this limited anecdotal evidence to support her claim.

In conclusion, the author's evidence lends little credible support to her claim. To persuade me that Adams is better than Fitch, the author would need to provide clear evidence that individual Adams agents are more effective in selling homes than individual Fitch agents, and that the disparity in home sales and sales price is attributable to that difference. Finally, to better evaluate the author's claim we would need more information comparing the percentage of agents working part-time at Fitch versus Adams. We would also need more information about the comparative attractiveness of the author's two homes, and the extent to which the residential real-estate market changed during the decade between the sales of these two homes.

## 5、159、173

5. On Balmer Island, where mopeds serve as a popular form of transportation, the population increases to 100,000 during the summer months. To reduce the number of accidents involving mopeds and pedestrians, the town council of Balmer Island should limit the number of mopeds rented by the island's moped rental companies from 50 per day to 25 per day during the summer season. By limiting the number of rentals, the town council will attain the 50 percent annual reduction in moped accidents that was achieved last year on the neighboring island of Seaville, when Seaville's town council enforced similar limits on moped rentals.

The author of this editorial recommends that to reduce accidents involving mopeds and pedestrians Balmer Island's city council should restrict moped rentals to 30 per day, down from 50, at each of the island's six rental outlets. To support this recommendation the author cites the fact that last year, when nearby Torseau Island's town council enforced similar measures, Torseau's rate of moped accidents fell by 50%. For several reasons, this evidence provides scant support for the author's recommendation.

To begin with, the author assumes that all other conditions in Balmer that might affect the rate of moped-pedestrian accidents will remain unchanged after the restrictions are enacted. However, with a restricted supply of rental mopeds people in Balmer might purchase mopeds instead. Also, the number of pedestrians might increase in the future; with more pedestrians, especially tourists, the risk of moped-pedestrian accidents would probably increase. For that matter, the number of rental outlets might increase to make up for the artificial supply restriction per outlet—a likely scenario assuming moped rental demand does not decline. Without considering and ruling out these and other possible changes that might contribute to a high incidence of moped-pedestrian accidents, the author cannot convince me that the proposed restrictions will necessarily have the desired effect.

Next, the author fails to consider other possible explanations for the 50% decline in Torseau's moped accident rate last year. Perhaps last year Torseau experienced unusually fair weather, during which moped accidents are less likely. Perhaps fewer tourists visited Torsean last year than during most years, thereby diminishing the demand for rental mopeds to below the allowed limits. Perhaps last year some of Torseau's moped rental outlets purchased new mopeds that are safer to drive. Or perhaps the restrictions were already in effect but were not enforced until last year. In any event, a decline in Torseau's moped accident rate during only one year is scarcely sufficient to draw any reliable conclusions about what might have caused the decline, or about what the accident rate will be in years ahead.

Additionally, in asserting that the same phenomenon that caused a 50% decline in moped accidents in Torseau would cause a similar decline in Balmer, the author relies on what might amount to an unfair analogy between Balmer and Torseau. Perhaps Balmer's ability to enforce moped-rental restrictions does not meet Torseau's ability; if not, then the mere enactment of similar restrictions in Balmer is no guarantee of a similar result. Or perhaps the demand for mopeds in Torseau is always greater than in Balmer. Specifically, if fewer than all available mopeds are currently rented per day from the average Balmer outlet, while in Torseau every available moped is rented each day, then the proposed restriction is likely to have less impact on

the accident rate in Balmer than in Torseau.

Finally, the author provides no evidence that the same restrictions that served to reduce the incidence of all "moped accidents" by 50% would also serve to reduce the incidence of accidents involving "mopeds and pedestrians" by 50%. Lacking such evidence, it is entirely possible that the number of moped accidents not involving pedestrians decreased by a greater percentage, while the number of moped-pedestrian accidents decreased by a smaller percentage, or even increased. Since the author has not accounted for these possibilities, the editorial's recommendation cannot be taken seriously.

In conclusion, the recommendation is not well supported. To convince me that the proposed restriction would achieve the desired outcome, the author would have to assure me that no changes serving to increase Balmer's moped-pedestrian accident rate will occur in the foreseeable future. The author must also provide dear evidence that last year's decline in moped accidents in Torseau was attributable primarily to its moped rental restrictions rather than to one or more other factors. In order to better evaluate the recommendation, I would need more information comparing the supply of and demand for moped rentals on the two islands. I would also need to know the rate of moped pedestrian accidents in Torseau both prior to and after the restrictions were enforced in Torseau.

#### 8

8. To serve the housing needs of our students, Buckingham College should build a number of new dormitories. Buckingham's enrollment is growing and, based on current trends, will double over the next 50 years, thus making existing dormitory space inadequate. Moreover, the average rent for an apartment in our town has risen in recent years. Consequently, students will find it increasingly difficult to afford off-campus housing. Finally, attractive new dormitories would make prospective students more likely to enroll at Buckingham.

In this memo a dean at Buckingham College recommends that in order to meet expected enrollment increases the college should build an additional dormitory. To support this recommendation the dean points out that rental rates for off-campus apartments have been increasing, thus making it more difficult for students to afford this housing option. The dean also points out that a new dormitory would attract prospective students to the college. This argument is problematic in several respects.

A threshold problem with the argument involves the statistical reliability of the reports about off-campus rental rates. The dean indicates only that "student leaders" reported these statistics; the dean provides no information about how these students collected their data. It is entirely possible that the report was based on an insufficiently small sample, or a sample that was unrepresentative of the town's overall student rental market.

Secondly, the dean assumes that this current trend in rental rates will continue in the future; yet the dean offers no evidence to substantiate this assumption. These rates are a function of supply and demand, and it is entirely possible that construction of apartment houses will increase in the future, thereby reducing rental rates along with the need for an additional

dormitory. Without considering this possible scenario, the dean cannot justifiably conclude that an additional dormitory is needed to meet future demand.

Thirdly, the dean assumes that as enrollment increases the demand for student housing will also increase. While this might be the case, the dean ignores the possibility that the increased enrollment will be the result of an increase in the number of students commuting to Buckingham from their parents' homes. This scenario, if true, would render the dean's argument for building a new dormitory untenable.

Yet another problem with the argument involves the dean's final claim that an attractive new dormitory would attract prospective students to Buckingham. Even assuming students in fact choose colleges on this basis, by relying on this evidence the dean essentially provides an argument against building the new dormitory. If an attractive new dormitory would increase demand for dormitory space, this fact would only serve to undermine the dean's conflicting claim that the new dormitory would help meet increasing demand for dormitory space.

In conclusion, the dean's recommendation is not well supported. To strengthen it the dean must provide clear evidence that average rental rates for off-campus student apartments have in fact been increasing, that this trend will continue in the future, and that this trend will in fact result in an increased demand for dormitory housing.

#### 15, 51, 130, 131, 133

15. Recently, butter has been replaced by margarine in Happy Pancake House restaurants throughout the southwestern United States. This change, however, has had little impact on our customers. In fact, only about 2 percent of customers have complained, indicating that an average of 98 people out of 100 are happy with the change. Furthermore, many servers have reported that a number of customers who ask for butter do not complain when they are given margarine instead. Clearly, either these customers do not distinguish butter from margarine or they use the term 'butter' to refer to either butter or margarine.

In this argument the speaker recommends that, in order to save money, Happy Pancake House (HPH) should serve margarine instead of butter at all its restaurants. To support the argument, the speaker points out that HPH's Southwestern restaurants now serve margarine but not butter, and that only 2% of these restaurants' customers have complained about the change. The speaker also cites reports from many servers that a number of customers asking for butter have not complained when given margarine instead. This argument is unconvincing for several reasons.

First of all, the speaker does not indicate how long these restaurants have been refusing margarine to customers. If the change is very recent, it is possible that insufficient data have been collected to draw any reliable conclusions. Lacking this information I cannot assess the reliability of the evidence for the purpose of showing that HPH customers in the Southwest are generally happy with the change.

Secondly, the speaker fails to indicate what portion of HPH customers order meals calling for either butter or margarine. Presumably, the vast majority of meals served at any pancake restaurant call for one or the other. Yet it is entirely possible that a significant percentage of HPH customers do not order pancakes, or prefer fruit or another topping instead. The greater this percentage, the less meaningful any statistic about the level of customer satisfaction among all of HPH's Southwestern customers as an indicator of preference for butter or margarine.

Thirdly, the speaker unfairly assumes that HPH customers unhappy with the change generally complain about it. Perhaps many such customers express their displeasure simply by not returning to the restaurant. The greater the percentage of such customers, the weaker the argument's evidence as a sign of customer satisfaction with the change. Two additional problems specifically involve the reports from "many" servers that "a number" of customers asking for butter do not complain when served margarine instead. Since the speaker fails to indicate the percentage of servers reporting or customers w,-ho have not complained to servers, this evidence is far too vague to be meaningful. Also, the speaker omits any mention of reports from servers about customers who have complained. Since the anecdotal evidence is one-sided, it is inadequate to assess overall customer satisfaction with the change.

Finally, even if HPH's Southwest customers are happy with the change, the speaker unfairly assumes that customers in other regions will respond similarly to it. Perhaps Southwesterners are generally less concerned than other people about whether they eat margarine or butter. Or perhaps Southwesterners actually prefer margarine to butter, in contrast to prevailing tastes elsewhere. Or perhaps Southwesterners have relatively few choices when it comes to pancake restaurants.

In sum, the speaker's argument is weak. To better assess it I would need to know: (1) how long the change has been in effect in the Southwest, (2) what percentage of HPH servers and managers have received customer complaints about the change, and (3) the number of such complaints as a percentage of the total number of HPH customers who order meals calling for either butter or margarine. To strengthen the argument, the speaker must provide clear evidence--perhaps by way of a reliable survey--that HPH customers in other regions are likely to be happy with the change and continue to pa tronize HPH after the change.

#### 32, 104, 167

32. The council of Maple County, concerned about the county's becoming overdeveloped, is debating a proposed measure that would prevent the development of existing farmland in the county. But the council is also concerned that such a restriction, by limiting the supply of new housing, could lead to significant increases in the price of housing in the county. Proponents of the measure note that Chestnut County established a similar measure ten years ago, and its housing prices have increased only modestly since. However, opponents of the measure note that Pine County adopted restrictions on the development of new residential housing fifteen years ago, and its housing prices have since more than doubled. The council currently predicts that the proposed measure, if passed, will result in a significant increase in housing prices in Maple County.

This editorial recommends that Alta Manufacturing reduce its work shifts by one hour each

in order to reduce its on-the-job accident rate and thereby increase Alta's productivity. To support

this recommendation the author points out that last year the number of accidents at Alta was 30% greater than at Panoply Industries, where work shifts were one hour shorter. The author also cites certain experts who believe that many on-the-job accidents are caused by fatigue and sleep deprivation. I find this the argument unconvincing for several reasons.

First and foremost, the author provides absolutely no evidence that overall worker productivity is attributable in part to the number of on-the-job accidents. Although common sense informs me that such a relationship exists, the author must provide some evidence of this cause-and-effect relationship before I can accept the author's final conclusion that the proposed course of action would in fact increase Alta's productivity.

Secondly, the author assumes that some accidents at Alta are caused by fatigue or sleep deprivation. However, the author overlooks other possible causes, such as inadequate equipment maintenance or worker training, or the inherent hazards of Alta's manufacturing processes. By the same token, Panoply's comparatively low accident rate might be attributable not to the length of its work shifts but rather to other factors, such as superior equipment maintenance or worker training. In other words, without ruling out alternative causes of on-the-job accidents at both companies, the author cannot justifiably conclude that merely by emulating Panoply's work-shift policy Alta would reduce the number of such accidents.

Thirdly, even assuming that Alta's workers are fatigued or sleep-deprived, and that this is the cause of some of Alta's on-the-job accidents, in order to accept the author's solution to this problem we must assume that Alta's workers would use the additional hour of free time to sleep or rest. However, the author provides no evidence that they would use the time in this manner. It is entirely possible that Alta's workers would use that extra hour to engage in some other fatiguing activity. Without ruling out this possibility the author cannot convincingly conclude that reducing Alta's work shifts by one hour would reduce Alta's accident rate.

Finally, a series of problems with the argument arise from the scant statistical information on which it relies. In comparing the number of accidents at Alta and Panoply, the author fails to consider that the per-worker accident rate might reveal that Alta is actually safer than Panoply, depending on the total number of workers at each company. Second, perhaps accident rates at the two companies last year were aberrations, and during other years Alta's accident rate was no greater, or even lower, than Panoply's rate. Or perhaps Panoply is not representative of industrial companies generally, and that other companies with shorter work shifts have even higher accident rates. In short, since the argument relies on very limited statistical information I cannot take the author's recommendation seriously.

In conclusion, the recommendation for emulating Panoply's work-shift policy is not well supported. To convince me that shorter work shifts would reduce Alta's on-the-job accident rate, the author must provide clear evidence that work-shift length is responsible for some of Alta's accidents. The author must also supply evidence to support her final conclusion that a lower accident rate would in fact increase overall worker productivity.

#### 35, 52, 128, 129

35. One month ago, all the showerheads in the first three buildings of the Sunnyside Towers complex were modified to restrict maximum water flow to one-third of what it used to be. Although actual readings of water usage before and after the adjustment are not yet available, the change will obviously result in a considerable savings for Sunnyside Corporation, since the corporation must pay for water each month. Except for a few complaints about low water pressure, no problems with showers have been reported since the adjustment. I predict that modifying showerheads to restrict water flow throughout all twelve buildings in the Sunnyside Towers complex will increase our profits even more dramatically.

In this letter, the owner of an apartment building concludes that low-flow shower heads should be installed in showers on all 20 floors of the building, for the purpose of saving money. To support this conclusion, the owner cites the fact that since installing low-flow heads in showers on the bottom five floors only a few tenants have complained about low water pressure, and that no other problems with showers have been reported. However, this evidence provides little credible support for the owner's argument, as discussed below.

In the first place, the argument depends on the assumption that installation of low-flow heads on the first five floors has resulted in lower water costs for the owner. However, this need not be the case. It is equally possible that tenants on these floors compensate for lower flow by either taking longer showers or by opening their shower valves further than they would otherwise. It is also possible that water pressure, and therefore water usage, on the remaining floors has increased as a result. It is even possible that during the month since installation many of the tenants on the bottom five floors have been absent from the building, and this fact explains why few tenants have complained.

In the second place, the owner ignores possible indirect consequences of installing low-flow shower heads on all 20 floors--consequences that in turn might adversely affect the owner's net operating income. For example, the more low-flow installations the more likely that one or more tenants will become disgruntled and vacate as a result. In fact, the owner has admitted that at least a few tenants have complained about these new shower heads. High tenant turnover might very well serve to increase the owner's overall operating costs.

In the third place, in order to reasonably conclude that low-flow heads will reduce total water usage in the building the owner must assume that other water uses will remain constant in the future. However, this will not necessarily be the case. Perhaps the water supplier will raise rates, or perhaps current tenants will be replaced by other tenants who use more water. Without ruling out such possibilities the owner cannot justifiably conclude that his total water costs will decrease after installing low-flow heads in every shower.

In conclusion, the argument is unconvincing as it stands. To strengthen it the owner must provide clear evidence that the use of a low-flow shower head in fact reduces total water usage. To better assess the argument we would need figures comparing water usage before and after installation. We would also need to know how many of the bottom five floors were occupied since the new heads were installed, and whether the tenants on these floors are likely to use more or less water than tenants on the upper floors.

## 37

37. Ten years ago, as part of a comprehensive urban renewal program, the city of Transopolis adapted for industrial use a large area of severely substandard housing near the freeway. Subsequently, several factories were constructed there, crime rates in the area declined, and property tax revenues for the entire city increased. To further revitalize the city, we should now take similar action in a declining residential area on the opposite side of the city. Since some houses and apartments in existing nearby neighborhoods are currently unoccupied, alternate housing for those displaced by this action will be readily available.

The planning department for the city of Transopolis recommends, as part of its urban renewal plan, that the city convert a certain residential area for industrial use and relocate residents from that area to nearby unoccupied housing. To support this recommendation, the planners point out that ten years ago the city converted an area of substandard housing on the other side of town, near a freeway, for industrial use, and that afterwards that area's crime rate declined while the city's overall property-tax revenue increased. I fred the recommendation specious on several grounds.

To begin with, the recommendation relies on two poor assumptions about the effects of the freeway-area conversion. One such assumption is that the freeway-area conversion caused the decline in that area's crime rate. The mere fact that the conversion occurred before the decline does not suffice to prove that the conversion caused the decline. Perhaps the true cause was some unrelated development--such as a new city-wide "tough-on-crime" policy or improvements in police training. Another such assumption is that the increase in overall property-tax revenue indicates an increase in tax revenue from properties in the freeway area. Perhaps property-tax revenue from the converted properies remained the same, or even declined, after the conversion, and that the city's overall property-tax revenue increase was attributable to properties located elsewhere in the city. For that matter, perhaps the city raised its property-tax rates shortly after the conversion. In short, without ruling out alternative explanations for the developments that came after the freeway-area conversion, the planners cannot convince me that the conversion was responsible for those developments.

Even if the evidence turns out to substantiate the two foregoing assumptions, the recommendation further assumes that the proposed conversion would carry the same results as the freeway-area conversion. Yet key differences between the two areas might undermine the analogy. For example, perhaps the properties surrounding the ones converted in the freeway area were not residential. Common sense informs me that crimes such as burglary and robbery are less likely in areas where few people reside. Since at least some nearby housing is available for residents displaced by the proposed conversion, this conversion might not result in any significant decline in the area's crime rate. At the same time, unless unoccupied nearby housing can accommodate all displaced residents, the conversion might create a homelessness problem, thereby undermining the city's objectives.

Finally, the recommendation assumes that all conditions bearing on whether residential

to-industrial conversions would help renew Transopolis have remained unchanged over the past ten years--and will continue unchanged in the foreseeable future. Yet, perhaps Transopolis had more and better housing for displaced residents ten years ago than today. Or perhaps Transopolis would have more trouble finding occupants for additional industrial buildings today than it did ten years ago. Indeed, a myriad of factors---including the reg4onal and national economy, demographic shifts, and political influences--might explain why an urban-renewal program that had a Salutary impact on Transopolis' crime rate and property-tax revenues in the past might nevertheless not revitalize the city today, or in the future.

In sum, the planners' recommendation is largely unfounded. To bolster it they must provide clear evidence that the freeway-area conversion contributed to the decline in that area's crime rate and to the city's overall property-tax revenue increase. To better assess the argument I would need to know what other changes have occurred in the city that might explain those developments.

#### 38, 95, 96

38. Five years ago, at a time when we had difficulties in obtaining reliable supplies of high quality wool fabric, we discontinued production of our alpaca overcoat. Now that we have a new fabric supplier, we should resume production. This coat should sell very well: since we have not offered an alpaca overcoat for five years and since our major competitor no longer makes an alpaca overcoat, there will be pent-up customer demand. Also, since the price of most types of clothing has increased in each of the past five years, customers should be willing to pay significantly higher prices for alpaca overcoats than they did five years ago, and our company profits will increase.

In this memo the vice president of Sartorian, a clothing manufacturer, argues that by resuming production of alpaca (wool) overcoats, after discontinuing production of these coats five years ago due to an unreliable alpaca supply, Sartorian would increase its profits. To support this argument the vice president points out that Sartorian now has a new fabric supplier, and reasons that since Sartorian's chief competitor has discontinued making these coats there must be pent-up consumer demand for them which Sartorian would fill. The vice president also reasons that, since overall do thing prices have risen in each of the last five years, consumers will be willing to pay higher prices for Sartorian's alpaca coats. I find the argument specious in several respects.

To begin with, the argument relies on the assumption that the new fabric supplier will be are liable supplier of alpaca. Yet the memo provides no substantiating evidence for this assumption. Perhaps the supply problems Sartorian experienced years earlier were attributable not to its supplier at the time but rather to factors beyond any supplier's control and which might render the alpaca supply unreliable today as well. Besides, without evidence to the contrary it is entirely possible that Sartorian's new supplier will turn out to be unreliable and to be blameworthy for that unreliability.

Even if the new supplier turns out to be reliable, the memo assumes too hastily, on the

basis of a competitor's discontinuing alpaca coat production, that consumer demand for alpaca coats made by Sartorian is now pent-up. Perhaps that competitor stopped making alpaca coats due to diminishing consumer demand for them. Or, perhaps other clothing manufacturers are now beginning to fill the market void by producing similar coats. Either of these scenarios, if true, would cast serious doubt on the vice president's claim that there is now pent-up alpaca coat demand from which Sartorian would profit.

Even if the vice president can substantiate the two foregoing assumptions, the argument relies on the additional assumption that consumers will be willing to pay whatever price Sartorian requires to turn a profit on its alpaca coat sales. Yet, perhaps Sartorian's costs for alpaca wool will be so high as to preclude any profit from alpaca coat sales. Also, the fact that clothing prices have been steadily increasing for five years suggests that consumers might have less disposable income for purchasing items such as alpaca coats, especially if consumers' income has not kept pace with escalating prices. Thus without stronger evidence that consumers would be both willing and able to pay high prices for Sartorian's alpaca coats the vice president cannot convince me that the proposed course of action would be a profitable one.

Finally, even if Sartorian would turn a profit from the sale of its alpaca coats, the memo's claim that the company's overall profits would increase thereby is unwarranted. Sartorian's overall profitability is a function of revenue and expenses relating to all of Sartorian's products. Since the memo provides no evidence that Sartorian will continue to be profitable in other respects, I simply cannot take the vice president's argument seriously.

In sum, the argument is unpersuasive as it stands. To bolster it the vice president must provide assurances that the new supplier will be a reliable and affordable alpaca supplier, and that consumers will be able and willing to pay whatever prices Sartorian requires. To better assess the argument I would need to know whether consumers are demanding alpaca coats anymore, and if so whether new competitors entering the alpaca coat market would thwart Sartorian's efforts to profit from any pent-up demand for these coats. I would also need detailed financial projections for Sartorian, to determine the likelihood that it will continue to be profitable overall, aside from its predicted profitability from alpaca coat sales.

## 47、111、112

47. Because of declining profits, we must reduce operating expenses at Movies Galore's ten movie-rental stores. Raising prices is not a good option, since we are famous for our low prices. Instead, we should reduce our operating hours. Last month our store in downtown Marston reduced its hours by closing at 6:00 p.m. rather than 9:00 p.m. and reduced its overall inventory by no longer stocking any DVD released more than five years ago. Since we have received very few customer complaints about these new policies, we should now adopt them at all other Movies Galore stores as our best strategies for improving profits.

In this memo the owner of Armchair Video concludes that in order to boost sagging profits Armchair's stores should eliminate evening operating hours and should stock only movies that are less than two years old. To support this conclusion the owner points out that since

Armchair's downtown Marston store implemented these changes, very few customers have complained. The owner's argument relies on several unsubstantiated assumptions, and is therefore unconvincing as it stands.

In the first place, implicit in the argument is the assumption that no other means of boosting profits is available to Armchair. While the owner has explicitly ruled out the option of raising its rental rates, the owner ignores other means, such as selling videos, or renting and selling compact discs, candy, and so forth. Without considering such alternatives, the owner cannot justifiably conclude that the proposed changes are the only ways Armchair can boost its profits.

A second problem with the argument is that it assumes that the proposed changes would in fact enhance profits. It is entirely possible that the lost revenue from reducing store hours would outweigh the savings in reduced operating costs. Perhaps Armchair customers are attracted to the stores' wide selection and Variety of movies, and that Armchair would lose their patronage should it reduce its inventory. Moreover, common sense informs me that video rental stores do most of their business during evening hours, and therefore that the proposed action would actually result in a further decline in profits.

Two additional problems involve the downtown Marston store. First, the owner implicitly assumes that the store has increased its profits as a result of eliminating evening operating hours and stocking only newer movies. Yet the owner provides no evidence to support this assumption. One cannot infer from the mere fact that the store's patrons have not complained that the store's business, and in turn profits, have increased as a result of these changes.

A second problem with Marston is that the owner assumes this store is representative of Armchair outlets generally. It is entirely possible that, due to its downtown location, the Marston store attracts a daytime clientele more interested in new movies, whereas other oufets depend on an evening clientele with different or more diverse tastes in movies. Or perhaps downtown Marston lacks competing video stores or movie theaters, whereas Armchair's other stores are located in areas with many competitors. Without accounting for such possibilities, the owner cannot convince me that the profits of other Armchair oudets would increase by following Marston's example.

In conclusion, the argument is unconvincing as it stands. To strengthen it the owner must provide strong evidence that the cost savings of the proposed course of action would outweigh any loss in revenue, and that no other viable means of boosting its profits is available to Armchair. To better evaluate the argument we would need information enabling us to compare the Marston store's clientele and competition with that of other Armchair stores. We would also need more information about Marston's profitability before and after it implemented the new policies.

#### 48

48. Clearview should be a top choice for anyone seeking a place to retire, because it has spectacular natural beauty and a consistent climate. Another advantage is that housing costs in Clearview have fallen significantly during the past year, and taxes remain lower than those in

neighboring towns. Moreover, Clearview's mayor promises many new programs to improve schools, streets, and public services. And best of all, retirees in Clearview can also expect excellent health care as they grow older, since the number of physicians in the area is far greater than the national average.

This article argues that anyone seeking a place to retire should choose Clearview. To support this argument the article cites Clearview's consistent climate and natural beauty; it's falling housing costs; its low property taxes compared to nearby towns; and the mayor's promise to improve schools, streets, and services. The article also claims that retirees can expect excellent health care because the number of physicians in Clearview greatly exceeds the national average. This argument is flawed in several critical respects.

To begin with, although consistent climate and natural beauty might be attractive to many retirees, these features are probably not important to all retirees. For many retirees it is probably more important to live near relatives, or even to enjoy changing seasons. Thus I cannot accept the author's sweeping recommendation for all retirees on this basis.

Also, Clearview's declining housing costs do not necessarily make Clearview the best place to retire for two reasons. First, despite the decline Clearview's housing costs might be high compared to housing costs in other cities. Secondly, for wealthier retirees housing costs are not likely to be a factor in choosing a place to retire. Thus the mere fact that housing costs have been in decline lends scant support to the recommendation.

The article's reliance on Clearview's property-tax rates is also problematic in two respects. First, retirees obviously have innumerable choices about where to retire besides Clear view and nearby towns. Secondly, for retirees who are well-off financially property taxes are not likely to be an important concern in choosing a place to retire. Thus it is unfair to infer from Clearview's property-tax rates that retirees would prefer Clearview.

Yet another problem with the argument involves the mayor's promises. In light of Clearview's low property-tax rates, whether the mayor can follow through on those promises is highly questionable. Absent any explanation of how the city can spend more money in the areas cited without raising property taxes, I simply cannot accept the editorial's recommendation on the basis of those promises. Besides, even if the city makes the improvements promised, those improvements--particular the ones to schools--would not necessarily be important to retirees.

Finally, although the number of physicians in Clearview is relatively high, the per capita number might be relatively low. Moreover, it would be fairer to compare this per capita number with the per capita number for other attractive retirement towns--rather than the national average. After all, retirees are likely to place a relatively heavy burden on health-care resources. Besides, the article provides no assurances that the number of physicians in Clearview will remain high in the foreseeable future.

In conclusion, the recommendation is poorly supported. To strengthen it the author must convince me--perhaps by way of a reliable survey--that the key features that the vast majority of retirees look for in choosing a place to live are consistent climate, natural beauty, and low housing costs. The author must also provide better evidence that Clear view's property taxes are lower than the those of cities in other areas. The author must also explain how the city can make its promised improvements without raising property taxes. Finally, to better assess the argument I would need to now how the per capita number of physicians in Clearview would compare to

the national average in the future.

## 55

55. Although the sales of Whirlwind video games have declined over the past two years, a recent survey of video-game players suggests that this sales trend is about to be reversed. The survey asked video-game players what features they thought were most important in a video game. According to the survey, players prefer games that provide lifelike graphics, which require the most up-to-date computers. Whirlwind has just introduced several such games with an extensive advertising campaign directed at people ten to twenty-five years old, the age-group most likely to play video games. It follows, then, that the sales of Whirlwind video games are likely to increase dramatically in the next few months.

This editorial concludes that a two-year decline in sales of Whirlwind's video games is about to reverse itself, and that sales will increase dramatically in the next few months. To justify this conclusion the editorial's author cites a recent survey in which video-game players indicated a preference for games with realistic graphics requiting state-of-the art computers. The editorial then points out that Whirlwind has just introduced several such games, along with an extensive advertising campaign aimed at people 10-25 years old---the demographic group most likely to play video games. I find this argument specious on several grounds.

First, the author provides no assurances that the survey on which the argument depends is statistically reliable. Unless the survey's respondents are representative of the overall population of video-game enthusiasts, the author cannot rely on it to predict the success of Whirlwind's new games. For all we know a significant percentage of the respondents were not 10-25 years of age; for that matter, perhaps the number of respondents was too low to ensure that they are typical of video-game enthusiasts in that age group.

Secondly, the argument relies on the assumption that the two-year decline in Whirlwind's sales is attributable to a problem that Whirlwind's introduction of its new games and ad campaign will solve. Yet it is entirely possible that the decline was due to factors such as imprudent pricing and distribution strategies or poor management, and that these problems have not been remedied. In fact, perhaps the same advertising agency that is promoting Whirlwind's new games also promoted Whirlwind's earlier games, and it was the agency's inability to attract interest among the key demographic group that caused the decline. Since the author has not dearly identified the cause of the decline, I cannot be convinced that Whirlwind's new strategy will reverse that decline at all let alone dramatically.

Thirdly, even if the ad campaign successfully attracts many 10-25 year-olds to Whirlwind's new games, the argument rests on the further assumption that this result will suffice to cause the predicted sales increase during the next few months. Yet this need not be the case. Perhaps Whirlwind's new state-of-the-art games are prohibitively expensive for the key demographic group. Or perhaps Whirlwind's competitors are now introducing similar games at lower prices or with additional features that render them more attractive to video-game enthusiasts than Whirlwind's new games. Unless the author can rule out such possibilities, I simply cannot be

swayed by the prediction that Whirlwind is about to experience a dramatic increase in sales.

Finally, even if the author can substantiate the foregoing assumptions, I remain unconvinced that the impending increase in sales will occur within the next few months. Perhaps video-game sales are highly seasonal and Whirlwind will need to wait longer than two months to see the dramatic increase it expects. If so, the author must modify the prediction accordingly.

In sum, the argument is unconvincing as it stands. To strengthen it the author must provide clear evidence that video-game enthusiasts 10-25 years of age would be interested in Whirlwind's new games, and that they could afford to buy them. To better assess the argument I would need to know (1) what caused the two-year sales decline to begin with, and whether Whirlwind's new strategy eliminates that cause; (2) what competing products might serve to diminish sales of Whirlwind's new games during the next few months; and (3) when Whirlwind's introduction of its new games has occurred in relation to the peak video-game sales season, if any.

## 63

63. Throughout the country last year, as more and more children below the age of nine participated in youth-league sports, over 40,000 of these young players suffered injuries. When interviewed for a recent study, youth-league soccer players in several major cities also reported psychological pressure exerted by coaches and parents to win games. Furthermore, education experts say that long practice sessions for these sports take away time that could be used for academic activities. Since the disadvantages outweigh any advantages, we in Parkville should discontinue organized athletic competition for children under nine.

This letter concludes that Parkville should not allow children under age nine to participate in organized competitive sports. To support this conclusion, the author points out the increasing number of children nationwide who become injured during athletic competitions. The author also cites the fact that in some big dries children report undue pressure from coaches and parents to win, and that long practice sessions take time away from a child's academic pursuits. However, the author's argument relies on a series of unsubstantiated assumptions, and is therefore unpersuasive as it stands.

One problem with the argument is that it assumes that the nationwide statistics about the incidence of sports injuries among youngsters applies equally to Parkville's children. Yet this might not be the case, for a variety of possible reasons. Perhaps Parkville maintains more stringent safety standards than the national norm; or perhaps children's sporting events in Parkville are better supervised by adults, or supervised by more adults. Without ruling out such possibilities, the author cannot justifiably conclude that Parkville has a sports-injury problem to begin with.

A second problem with the argument is that it unjustifiably assumes that in Parkville parents and coaches unduly pressure youngsters to win organized athletic competitions. The only evidence the author provides to substantiate this assumption are the reports from "big city" children. We are not informed whether ParkviUe is a big city. Perhaps people who live in big

dries are generally more competitive than other people. If so, and if Parkville is not a big city, then the author cannot justifiably rely on these reports to conclude that the proposed course of action is necessary.

A third problem with the argument is that it unfairly assumes that children do not benefit academically from participating in competitive sports. It is entirely possible that such sports provide children with the sort of break from academics that helps them to be more productive academically. It is also possible that the competitive drive that these sports might instill in young children carries over to their academics and spurs them on to perform well in school. Without considering such potential academic benefits, the author cannot reasonably conclude that for young children the disadvantages of participating in athletic competition outweigh the benefits.

In conclusion, the argument is unconvincing as it stands. To better evaluate the argument we would need more information about the incidence of sports injuries among young children in Parkville. To strengthen the argument the author must demonstrate that Parkville's parents and coaches exert the kind of pressure on their children reported by "big city" children and, if so, that this pressure in fact contributes to the sort of problems with which the author is concerned.

#### 76

76. Over 80 percent of the respondents to a recent survey indicated a desire to reduce their intake of foods containing fats and cholesterol, and today low-fat products abound in many food stores. Since many of the food products currently marketed by Old Dairy Industries are high in fat and cholesterol, the company's sales are likely to diminish greatly and company profits will no doubt decrease. We therefore advise Old Dairy stockholders to sell their shares, and other investors not to purchase stock in this company.

This excerpt from an investment newsletter cites a recent study in which 80% of respondents indicated a desire to reduce their consumption of high-fat and high-cholesterol foods, then points out that food stores are well-stocked with low-fat food products. Based on this evidence the newsletter predicts a significant decline in sales and profits for Old Dairy(OD), a producer of dairy products high in fat and cholesterol, and advises investors not to own OD stock. I find this advice specious, on several grounds.

First, the excerpt fails to assure me that the survey results accurately reflect the desires of most consumers, or that the results accurately predict consumer behavior. Without evidence that the respondents' desires are representative of those of the overall population where OD products are sold, it is hasty to draw any conclusions about future food buying habits from the survey. Moreover, common sense informs me that consumers do not necessarily make food-purchase decisions in strict accordance with their expressed desires. Thus as it stands the statistic that the newsletter cites amounts to scant evidence that OD sales and profits will decline in the future.

Secondly, the fact that low-fat foods are in abundant supply in food stores does not necessarily indicate an increasing demand for low-fat dairy products or a diminishing demand for high-fat dairy products. Absent evidence to the contrary, it is quite possible that consumers are

buying other types of low-fat foods but are still demanding high fat in their dairy products. For that matter, it is entirely possible that food stores are well-stocked with low-fat foods because actual demand has not met the demand anticipated by the stores.

Thirdly, even assuming an indisputable consumer trend toward purchasing more low-fat daizy products and fewer high-fat dairy products, the newsletter concludes too hastily that OD profits will decline as a result. OD can always raise the price of its dairy products to offset declining sales, and given a sufficient demand OD might still turn a profit, despite the general consumer trend. Besides, profit is a function of not just revenue but also expenses. Perhaps OD expenses will decline by a greater amount than its revenue; if so, then OD profits will increase despite falling revenues.

In sum, without additional information prudent investors should refrain from following the newsletter's advice. To better assess the soundness of this advice it would be helpful to know the following: (1) the demographic profile of the survey's respondents; (2) the extent to which consumer desires regarding food intake accord with their subsequent behavior; (3) the extent of OD loyalty among its regular retail customers who might continue to prefer OD products over low-fat products even at higher prices; and (4) the extent to which OD might be able to reduce expenses to offset any revenue loss resulting from diminishing sales of OD products.

#### 77、169

77. Two years ago, the nearby town of Ocean View built a new municipal golf course and resort hotel. During the past two years, tourism in Ocean View has increased, new businesses have opened there, and Ocean View's tax revenues have risen by 30 percent. Therefore, the best way to improve Hopewell's economy—and generate additional tax revenues—is to build a golf course and resort hotel similar to those in Ocean View.

In this memo Hopewell's mayor recommends that in order to stimulate the town's economy and boost tax revenues Hopewell should build a new golf course and resort hotel, just as the town of Ocean View did two years ago. To support this recommendation the mayor points out that in Ocean View during the last two years tourism has increased, new businesses have opened, and tax revenues have increased by 30%. I find the mayor's argument unconvincing in several important respects.

First of all, it is possible that the mayor has confused cause with effect respecting the recent developments in Ocean View. Perhaps Ocean View's construction of a new golf course and hotel was a response to previous increases in tourism and business development increases that have simply continued during the most recent two years. Since the mayor has failed to account for this possibility, the claim that Hopewell would boost its economy by also constructing a golf course and hotel is completely unwarranted.

Secondly, the mayor fails to account for other possible causes of the trends in Ocean View during the last two years. The increase in tourism might have been due to improving economic conditions nationwide, or to unusually pleasant weather in the region. The new businesses that have opened in Ocean View might have opened there irrespective of the new golf course and

hotel. And, the 30% increase in tax revenues might have been the result of an increase in tax rates, or the addition of a new type of municipal tax. Without ruling out these and other alternative explanations for the three recent trends in Ocean View, the mayor cannot reasonably infer based on those trends that Hopewell's economy would benefit by following Ocean View's example.

Thirdly, even if the recent trends in Ocean View are attributable to the construction of the new golf course and hotel there, the mayor assumes too hastily that the golf course and hotel will continue to benefit that town's overall economy. The mayor has not accounted for the possibility that increased tourism will begin to drive residents away during tourist season, or that new business development will result in the town's losing its appeal as a place to visit or to live. Unless the mayor can convince me that these scenarios are unlikely I cannot accept the mayor's recommendation that Hopewell follow Ocean View's example.

Finally, the mayor's argument rests on the unsubstantiated assumption that Hopewell and Ocean View are sufficiently alike in ways that might affect the economic impact of a new golf course and hotel. Hopewell might lack the sort of natural environment that would attract more tourists and new businesses to the town--regardless of its new golf course and hotel. For that matter, perhaps Hopewell already contains several resort hotels and golf courses that are not utilized to their capacity. If so, building yet another golf course and hotel might amount to a misallocation of the town's resources--and actually harm the town's overall economy.

In sum, the mayor's recommendation is not well supported. To bolster it the mayor must provide better evidence that Ocean View's new golf course and hotel and not some other phenomenon--has been responsible for boosting Ocean View's economy during the last two years. To better assess the recommendation I would need to know why Ocean View decided to construct its new golf course and hotel in the first place--specifically, what events prior to construction might have prompted that decision. I would also need to thoroughly compare Hopewell with Ocean View--especially in terms of their appeal to tourists and businesses—to determine whether the same course of action that appears to have boosted Ocean View's economy would also boost Hopewell's economy.

## 86、89

86. When XYZ lays off employees, it pays Delany Personnel Firm to offer those employees assistance in creating résumés and developing interviewing skills, if they so desire. Laid-off employees have benefited greatly from Delany's services: last year those who used Delany found jobs much more quickly than did those who did not. Recently, it has been proposed that we use the less expensive Walsh Personnel Firm in place of Delany. This would be a mistake because eight years ago, when XYZ was using Walsh, only half of the workers we laid off at that time found jobs within a year. Moreover, Delany is clearly superior, as evidenced by its bigger staff and larger number of branch offices. After all, last year Delany's clients took an average of six months to find jobs, whereas Walsh's clients took nine.

its personnel service for helping laid-off XYZ employees find new jobs. To support this recommendation the memo points out that 8 years ago, when XYZ was using Walsh, only half of XYZ's laid-off workers found new jobs within a year. The memo also points out that last year XYZ employees using DeNny's services found jobs much more quickly than those who did not, and that the average DeNny client found a job in 6 months, compared to 9 months for the average Walsh client. The memo also mentions that DeNny has more branch offices and a larger staff than Walsh. I find the memo's argument unconvincing for several reasons.

To begin with, Walsh's prior rate of placing laid-off XYZ employees is not necessarily a reliable indicator of what that rate would be now. Perhaps the placement rate 8 years ago was due to a general economic downturn or some other factor beyond Walsh's control. For that matter, perhaps the rate was relatively high among all placement services during that time period. In short, without ruling out other possible reasons for Walsh's ostensibly low placement rate 8 years ago, and without convincing me that this rate was low to begin with, the memo's author cannot convince me on the basis of XYZ's past experience with Walsh that XYZ should favor DeNny over Walsh.

The memo also makes two hasty assumptions about the benefits of DeNny's services last year. One such assumption is that these services were in fact responsible for helping the laid-off XYZ employees who used those services find jobs more quickly. It is entirely possible that the comparative success of this group was due instead to their other aggressive job-seeking efforts, which might even have included using Walsh's services--m addition to DeNny's. Also, the memo unfairly equates the speed with which one finds a job with job-seeking success. Common sense informs me that the effectiveness of a job search depends not only on how quickly one finds a job, but also on compensation, benefits, location, and type of work.

Furthermore, the difference in the two firms' overall placement time last year does not necessarily indicate that DeNny would be the better choice to serve XYZ's laid-off employees. These employees might have particular skills or needs that are not representative of the two firms' clients in general. Besides, a single year's placement statistics hardly suffices to draw any firm conclusions. Last year might have been exceptional--perhaps due to some unusual event that is unlikely to reoccur, such as a major employer's move to an area that DeNny serves, or out of an area that Walsh serves.

Finally, the fact that Delany has more branch offices and a larger staff than Walsh proves nothing in itself about which firm would be more effective in finding jobs for laid-off XYZ employees. Perhaps these employees generally look for jobs in geographic areas or industries outside of Delany's domain. Or perhaps the number of Delany staff members per office is actually lower than at Walsh. Either scenario, if true, would cast serious doubt on the memo's conclusion that XYZ should favor Delany over Walsh.

In sum, as it stands the recommendation is not well supported. To bolster it the memo's author must provide better evidence--perhaps from XYZ's records--that Delany's services have consistently helped laid-off XYZ employees find jobs. Instead of attempting to convince me that Walsh provided a disservice to XYZ 8 years ago, the author should provide better evidence that Walsh's services would be inferior to Delany's in the foreseeable future. Accordingly, to better assess the recommendation it would be helpful to compare the number of staff members per office at the two firms, and the level of experience of those staff members. It would also be useful to know what sorts of skills laid-off XYZ employees possess, and which firm, Delany or

Walsh, serves industries and areas with more openings for people with those skills.

## 92, 101, 103

92. Workers in the small town of Leeville take fewer sick days than workers in the large city of Masonton, 50 miles away. Moreover, relative to population size, the diagnosis of stress-related illness is proportionally much lower in Leeville than in Masonton. According to the Leeville Chamber of Commerce, these facts can be attributed to the health benefits of the relatively relaxed pace of life in Leeville.

This newspaper story concludes that living in a small town promotes health and longevity. The story's author bases this conclusion on a comparison between the small town of Leeville and nearby Mason City, a much larger town. However, careful scrutiny of the author's evidence reveals that it lends no credible support to the author's conclusion.

A threshold problem with the argument is that the author draws a general conclusion about the effect of a town's size on the health and longevity of its residents based only on characteristics of two towns. The author provides no evidence that these two towns (or their residents) are representative of other towns their size. In other words, this limited sample simply does not warrant any general conclusions about the effect of a town's size on the health and longevity of its residents.

Next, the author cites the fact that the incidence of sick leave in Leeville is less than in Mason City. This evidence would lend support to the argument only if the portion of local residents employed by local businesses were nearly the same in both towns, and only if the portion of employees who are local residents were nearly the same in both towns. Moreover, in relying on this evidence the author assumes that the portion of sick employees who actually take sick leave is nearly the same in both towns. In short, without showing that the two towns are similar in these ways, the author cannot draw any reliable comparisons about the overall health of the towns' residents--or about the impact of town size on health.

The author also cites the fact that Mason City has five times as many physicians per resident than Leeville. However, any number of factors besides the health of the towns' residents might explain this disparity. For example, perhaps Leeville residents choose to travel to Mason City for physician visits. Without ruling out such explanations, these physician-resident ratios prove nothing about the comparative health of Leeville and Mason City residents---or about the impact of town size on health.

Finally, the author cites the fact that the average age of Leeville residents is higher than that of Mason City residents. However, any number of factors might explain this disparity. For example, perhaps Leeville is a retirement community, while Mason City attracts younger working people. For that matter, perhaps Leeville is comprised mainly of former Mason City residents whose longevity is attributable chiefly to their former life-style in Mason City. In any event, the author cannot justify the conclusion that this disparity in average age is due to the difference in size between the two towns.

In conclusion, the argument that small-town living promotes good health and longevity is

unpersuasive as it stands. To strengthen the argument the author must provide clear evidence that the overall population of Leeville, not just employees in LeeviUe, is healthier than that of Mason City. The author must also provide strong evidence that Leeville and Mason City residents visit local physicians whenever they become sick. Finally, to better evaluate the argument we would need more information about why the average age of Leeville residents exceeds that of Mason City residents.

#### 109、110

109. Several factors indicate that radio station KNOW should shift its programming from rock-and-roll music to a continuous news format. Consider, for example, that the number of people in our listening area over fifty years of age has increased dramatically, while our total number of listeners has declined. Also, music stores in our area report decreased sales of recorded music. Finally, continuous news stations in neighboring cities have been very successful. The switch from rock-and-roll music to 24-hour news will attract older listeners and secure KNOW radio's future.

This memo recommends that KNOW radio station shift from rock-and-roll (R&R) music programming to all-news programming. To support this recommendation the manager points out that the number of KNOW listeners is decreasing while the number of older people in KNOW's listening area is increasing. The manager also points out that area sales of music recordings are in decline, and that a recent survey suggests that local residents are becoming better informed about politics. Finally, the manager cites the success of all-news stations in nearby cities. Careful scrutiny of the manager's argument reveals several unproven assumptions, which render it unconvincing.

First, the manager unfairly assumes that the decline in the number of KNOW listeners is attributable to the station's current format. Perhaps the decline is due instead to KNOW's specific mix of R&R music, or to transmission problems at the station. Without ruling out these and other feasible reasons for the decline, the manager cannot convince me that changing the format would reverse the trend.

Secondly, the manager's assumption that older people favor all-news programming is unsupported. Perhaps KNOW listeners are dedicated R&R fans who will continue to prefer this type of programming as they grow older. Or perhaps as KNOW's regular audience ages it will prefer a mix of R&R and news programming--rather than one format to the total exclusion of the other. Besides, the number of young people in the listening area might be increasing as well. In short, the mere fact that the number of older people in KNOW's listening area is increasing suggests nothing about KNOW's best programming strategy.

Thirdly, a decrease in local music recording sales is scant evidence that KNOW should eschew music in favor of an all-news format. Although overall music sales are in decline, perhaps sales of R&R recordings are actually increasing while sales of all other types of music recordings are decreasing. For that matter, perhaps people who buy music recordings are generally not the same people who listen to music on the radio. Either scenario, if true, would seriously undermine

the manager's contention that KNOW should discontinue R&R programming.

Fourth, it is unfair to conclude from one survey suggesting that local residents are becoming better informed about politics that they are becoming less interested in listening to R&R music, or that they are becoming more interested in listening to news. After all, news embraces many topics in addition to politics. Besides, there is no reason why people interested in politics cannot also be interested in listening to R&R music. Moreover, a single survey taken just prior to an election is poor evidence that local residents' piqued interest in politics is sustainable.

Finally, it is unwarranted to infer from the success of all-news stations in nearby dries that KNOW will also succeed by following the same format. Those stations might owe their success to their powerful transmitters, popular newscasters, or other factors. Besides, the very success of these stations suggests that the area's radio listeners might favor those well-established news providers over the fledgling all-news KNOW.

In sum, the manager's evidence accomplishes little toward supporting the manager's argument for the proposed format shift. To further bolster the argument the manager must provide better evidence, perhaps by way of a reliable survey, that people within KNOW's listening area are becoming more interested in news and less interested in R&R music--or any other kind of music. The manager must also show that an all-news format would be more popular than a mixed format of music and news, and that a significant number of people would prefer KNOW's all-news programming over that of other stations in the listening area.

## 113, 126, 127, 161

113. Many other companies have recently stated that having their employees take the Easy Read Speed-Reading Course has greatly improved productivity. One graduate of the course was able to read a 500-page report in only two hours; another graduate rose from an assistant manager to vice president of the company in under a year. Obviously, the faster you can read, the more information you can absorb in a single workday. Moreover, Easy Read would cost Acme only \$500 per employee—a small price to pay when you consider the benefits. Included in this fee is a three-week seminar in Spruce City and a lifelong subscription to the Easy Read newsletter. Clearly, to improve productivity, Acme should require all of our employees to take the Easy Read course.

In this argument, the personnel director of Acme Publishing claims that Acme would benefit greatly from improved employee productivity if every employee takes the 3-week Easy-Read seminar at a cost of \$500 per employee. To support this claim the director points out that many other companies have claimed to benefit from the seminar, that one student was able to read along report very quickly afterwards, and that another student saw his career advance significantly during the year after the seminar. However, close scrutiny of the evidence reveals that it accomplishes little toward supporting the director's claim, as discussed below.

First of all, the mere fact that many other companies benefited greatly from the course does not necessarily mean that Acme will benefit similarly from it. Perhaps the type of reading on which the course focuses is not the type in which Acme Publishing employees often engage at work. Moreover, since Acme is a publishing company its employees are likely to be excellent

readers already, and therefore might stand to gain far less from the course than employees of other types of companies.

Secondly, the two individual success stories the argument cites amount to scant evidence at best of the course's effectiveness. Moreover, the director unfairly assumes that their accomplishments can be attributed to the course. Perhaps both individuals were outstanding readers before taking the course, and gained nothing from it. Regarding the individual whose career advanced after taking the course, any one of a myriad of other factors might explain that advancement. And the individual who was able to read a long report very quickly after the course did not necessarily absorb a great deal of the material.

Thirdly, the director assumes without warrant that the benefits of the course will outweigh its costs. While all of Acme's employees take the 3-week course, Acme's productivity might decline significantly. This decline, along with the substantial fee for the course, might very well outweigh the course's benefits. Without a complete cost-benefit analysis, it is unfair to conclude that Acme would benefit greatly should all its employees take the course.

In sum, the director's evidence does not warrant his conclusion. To support his recommendation he must first provide evidence that employees with similar reading skills as those that Acme employees possess have benefited significantly from the course, a survey of other publishing companies might be useful for this purpose. To better assess the argument I would need more information about the extent to which the course would disrupt Acme's operations. Specific information that would be useful would include the proximity of the seminar to Acme, the hours involved, and the percentage of Acme employees enrolled simultaneously.

## 132, 134, 136

132. All students should be required to take the driver's education course at Centerville High School. In the past two years, several accidents in and around Centerville have involved teenage drivers. Since a number of parents in Centerville have complained that they are too busy to teach their teenagers to drive, some other instruction is necessary to ensure that these teenagers are safe drivers. Although there are two driving schools in Centerville, parents on a tight budget cannot afford to pay for driving instruction. Therefore an effective and mandatory program sponsored by the high school is the only solution to this serious problem.

This letter recommends mandatory driver's education courses at Centerville High School. The author bases this recommendation on three facts: during the last two years several Centerville car accidents have involved teenage drivers; Centerville parents are too busy to teach driving to their children; and the two private driver-education courses in the area are expensive. As discussed below, the argument suffers from several critical flaws and is therefore unpersuasive.

First of all, the letter fails to indicate who or what caused the car accidents to which the letter refers. If Centerville High School students caused the accidents, and if those accidents would have been avoided had these students enrolled in the high school's driving course, then the argument would have merit. However, it is equally likely that the other drivers were at fault,

or that no driver was at fault. Moreover, it is entirely possible that the teenage drivers had in fact taken the high school's driving course, or that they were not local high school students in the first place. The author must rule out all these possibilities in order to conclude confidently that a school-sponsored mandatory driving course would have prevented these accidents.

Secondly, whether the fact that several car accidents the last two years involved teenage drivers suggests a need for a mandatory driving course depends partly on the comparative accident rate during earlier years. It is entirely possible, for instance, that the rate of accidents involving teenagers has been steadily declining, and that this decline is due to the availability of the two private driving courses. Without ruling out this possibility, the letter's conclusion is not defensible.

The argument is problematic in certain other respects as well. It assumes that a mandatory school-sponsored course would be effective, yet provides no evidence to support this assumption. Similarly, the argument fails to substantiate its assumption that a significant percentage of Centerville's parents cannot afford private driving instruction for their teenage children. Absent substantiating evidence for either of these necessary assumptions, I can not be convinced that Centerville should establish the proposed driving course.

In conclusion, the letter's author fails to adequately support the recommendation for a school-sponsored mandatory driving course. To strengthen the argument, the author must provide clear evidence that Centerville High School students caused the accidents in question, and that a mandatory driving course would have prevented them. To better evaluate the argument, I would need more information about the affordability of the two private driving courses and about the effectiveness of a mandatory school-sponsored course compared to that of the two private courses.

#### 135、137、140

135. The data from a survey of high school math and science teachers show that in the district of Sanlee many of these teachers reported assigning daily homework, whereas in the district of Marlee, most science and math teachers reported assigning homework no more than two or three days per week. Despite receiving less frequent homework assignments, Marlee students earn better grades overall and are less likely to be required to repeat a year of school than are students in Sanlee. These results call into question the usefulness of frequent homework assignments. Most likely the Marlee students have more time to concentrate on individual assignments than do the Sanlee students who have homework every day. Therefore teachers in our high schools should assign homework no more than twice a week.

The speaker argues that if the state board of education required that homework be assigned to high school students no more than twice per week academic performance would improve. To support this assertion the speaker cites a statewide survey of math and science teachers. According to the survey, students in the Mafiee district, who are assigned homework no more than once per week, achieve better grades and are less likely to repeat a school year than students in the Sanlee district, who are assigned homework every night. Close scrutiny

reveals, however, that this evidence provides little credible support for the speaker's assertion.

To begin with, the survey appears to suffer from two statistical problems, either of which renders the survey's results unreliable. First, the speaker relies on statistics from only two districts; however, it is entirely possible that these two districts are not representative of the state's school districts overall. Second, the survey involved only math and science teachers. Yet the speaker draws a broad recommendation for all teachers based on the survey's results.

In addition, the speaker's recommendation relies on the assumption that the amount of homework assigned to students is the only possible reason for the comparative academic performance between students in the two districts. However, in all likelihood this is simply not the case. Perhaps Sanlee teachers are stricter graders then Marlee teachers. Or perhaps Sanlee teachers are less effective than Marlee teachers, and therefore Sanlee students would perform more poorly regardless of homework schedule. Or perhaps fewer Sanlee students than Marlee students actually do their assigned homework. In short, in order to properly conclude that fewer homework assignments results in better academic performance, the speaker must first rule out all other feasible explanations for the disparity in academic performance between the two districts.

Finally, the survey results as reported by the speaker are too vague to support any firm conclusion. The speaker reports that Sanlee students receive lower grades and are more likely to repeat a school year then Marlee students. Yet the speaker does not indicate whether this fact applies to Sanlee and Marlee students generally, or just to math and science students. The speaker's recommendation for all high school students might be defensible in the former case, but not in the latter case.

In conclusion, the recommendation that all high school students be assigned homework once per week at most is indefensible based on the evidence. To strengthen the argument, the speaker must show that the reported correlation in the areas of math and science is also found among most other academic subjects. The speaker must also rule out other factors that might determine the students' grades and their likelihood of repeating a year. Finally, to better assess the argument we would need to know whether the reported disparity in academic performance between Sanlee and Marlee students involved only math and science students or all students.

## 160、172

160. Last October, the city of Belleville installed high-intensity lighting in its central business district, and vandalism there declined almost immediately. The city of Amburg, on the other hand, recently instituted police patrols on bicycles in its business district. However, the rate of vandalism here remains constant. Since high-intensity lighting is clearly the most effective way to combat crime, we recommend using the money that is currently being spent on bicycle patrols to install such lighting throughout Amburg. If we install this high-intensity lighting, we will significantly reduce crime rates in Amburg.

Amburg's Chamber-of-Commerce president has recommended high-intensity lighting throughout Amburg as the best means of reducing crime and revitnliT, ing city neighbor hoods.

In support of this recommendation the president points out that when Belleville took similar action vandalism declined there almost immediately. The president also points out that since Amburg's police began patrolling on bicycles the incidence of vandalism has remained unchanged. The president's argument is flawed in several critical respects.

First, the argument rests on the unsupported assumption that in Belleville the immediate decline in vandalism was attributable to the lighting--rather than to some other phenomenon-and that the lighting has continued to serve as an effective deterrent there. Perhaps around the same time the city added police units or more after-school youth programs. Moreover, perhaps since the initial decline vandals have grown accustomed to the lighting and are no longer deterred by it. Without ruling out other feasible explanations for the decline and showing that the decline was a lasting one, the president cannot reasonably conclude on the basis of Belleville's experience that the same course of action would serve Amburg's objectives.

Secondly, the president assumes too hastily that Amburg's bicycle patrol has been ineffective in deterring vandalism. Perhaps other factors--such as a demographic shift or worsening economic conditions--have served to increase vandalism while the bicycle patrol has offset that increase. Thus without showing that all other conditions affecting the incidence of vandalism have remained unchanged since the police began its bicycle patrol the president cannot convincingly condude that high-intensity lighting would be a more effective means of preventing vandalism.

Thirdly, the president falsely assumes that high-intensity lighting and bicycle patrolling are Amburg's only possible means of reducing crime. In all likelihood Amburg has a myriad of other choices--such as social programs and juvenile legal-system reforms, to name just a few. Moreover, undoubtedly vandalism is not the only type of crime in Amburg. Thus unless the president can show that high-intensity lighting will deter other types of crime as well I cannot take seriously the president's conclusion that installing high intensity lighting would be the best way for Amburg to reduce its overall crime rate.

Finally, even if high-intensity lighting would be Amburg's best means of reducing crime in its central business district, the president's further assertion that reducing crime would result in a revitalization of city neighborhoods is unwarranted. Perhaps the decline of Amburg's city neighborhoods is attributable not to the crime rate in Amburg's central business district but rather to other factors--such as the availability of more attractive housing in the suburbs. And if the neighborhoods in decline are not located within the central business district the president's argument is even weaker.

In sum, the recommendation is not well-supported. To bolster it the president must show that Belleville's decline in vandalism is lasting and is attributable to the lighting. The president must also show that lighting would be more effective than any other means at Amburg's disposal to reduce not just vandalism but other crimes as well. To better assess the recommendation I would need to know whether Amburg's declining city neighbor-hoods are located within the central business district, and whether any other factors might have contributed to the decline.

#### 170

170. The surface of a section of Route 101, paved just two years ago by Good Intentions Roadways, is now badly cracked with a number of dangerous potholes. In another part of the state, a section of Route 40, paved by Appian Roadways more than four years ago, is still in good condition. In a demonstration of their continuing commitment to quality, Appian Roadways recently purchased state-of-the-art paving machinery and hired a new quality-control manager. Therefore, I recommend hiring Appian Roadways to construct the access roads for all our new shopping malls. I predict that our Appian access roads will not have to be repaired for at least four years.

The vice president of a company that builds shopping malls argues here that the company should hire Appian rather than McAdam to build access roads for the company. To support this argument the vice president points out that a certain area of Route 101 that McAdam repaved two years ago has deteriorated significantly, while a certain stretch of Route 66 that Appian repaved four years ago remains in good condition. The vice president also points out that Appian recently acquired new state-of-the-art paving equipment and hired a new quality-control manager. I find the vice president's argument logically unconvincing--in several respects.

First of all, it is unfair to infer based solely on the comparison between the two stretches of highway that Appian does better work than McAdam. The inference relies on the poor assumption that the comparative quality of two contractors' work, rather than some other phenomenon, was responsible for the comparative condition of the two stretches of pavement. Perhaps the stretch that McAdam repaved is located in an area whose extremes in climate or high traffic volume serve to erode and damage pavement very quickly. For that matter, perhaps soil or other geological conditions in that area were primarily responsible for deterioration of the pavement along that stretch. In short, without showing that all other conditions in the two areas have been essentially the same, the vice president cannot convince me that the quality of McAdam's and Appian's repaying work was responsible for the difference in how well the two stretches of pavement have held up.

Secondly, it is unfair to conclude based on Appian's recent equipment acquisition and personnel decision that Appian will do a better job than McAdam. Perhaps McAdam has also acquired the same type of equipment. Moreover, perhaps McAdam's quality-control manager is far more experienced than Appian's new manager, and as a result McAdam's product is likely to be better than Appian's. Besides, equipment and on-site management are only two of many factors affecting the quality of a pavement job. Other such factors include the experience and competence of other workers, and the paving material used. Without showing that the two firms are similar in these and other respects, the vice president cannot justify his recommendation of Appian over McAdam.

Finally, the vice president's recommendation rests on the unlikely assumption that the company has only two alternatives--McAdam and Appian. In all likelihood the company can engage one of many other paving contractors instead. Thus to the extent the vice president recommends Appian over not just McAdam but over any other contractor the recommendation is unwarranted.

In sum, the vice president has not convinced me that the company should hire Appian. To strengthen the argument the vice president must provide dear evidence that it was the quality of McAdam's and Appian's work rather than one or more other factors--that resulted in the difference between how well the two stretches of pavement have held up over time. The vice president must also provide better evidence that Appian's new equipment and new manager will enhance, or at least maintain, the quality of Appian's overall work at a higher level than McAdam's overall work. Finally, to better assess the argument I would need to know what other paving contractors the company could hire, and the quality of those contractors' work compared to McAdam's and Appian's.