

Evolution and Freedom

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Thanks to the Economic Freedom of the World project, we know a good deal about economic freedom. Less is known about other forms of freedom. There is an ongoing effort to improve our knowledge of other forms of freedom, developed by the same organizations that originally developed the Economic Freedom index. (See, for example, Vasquez and Stumberger, 2012) In this paper I will explore the basis for the demand for other forms of freedom, and for the desire to limit freedom. I base this analysis on our evolutionary background, and in particular on the evolution of political and economic preferences, as discussed in Rubin (2002 and 2003).

I begin with a discussion of individuality. I then discuss some specific forms of freedom: political freedom, religious freedom, crime, discrimination, and trade. I conclude with an organization scheme for measuring freedom.

Individuality

All individuals are different. This is not a casual observation, nor is it a new age “feel good” statement. Rather, it is a scientific statement based on evolutionary theory.

First is the difference between males and females. Males and females pursue different reproductive strategies, not just in humans, but in all sexual species. One important cause of this difference is that males have much more variance in their offspring than do females (though of course the means are, by definition, the same.) This difference in reproductive success then leads to important differences in behavior. In particular, males are more risk-seeking than females. This is because the potential payoff for a risky strategy is much greater for a male than for a female. This is because the maximum number of offspring for a female is limited because of the time and physiological cost of bearing children, while the number of offspring a male can father is virtually unlimited. This is particularly true for

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mammals because the cost of bearing and nurturing a child is quite high for female mammals. This means that there is a greater variance among males than females for most traits. More men than women win Nobel prizes, but there are more homeless men (e.g., Wikipedia has an entry on “Homelessness in the United States,” which reports that about 25 percent of the homeless are women.) Since each child has one father and one mother, the mean number of offspring for males and females is the same

But there are differences other than gender between individuals.

Consider a simple evolutionary game, the hawk-dove game. The setup is this: There is some animal that may come in two types, a “hawk” and a “dove.” The animals move about until they find some resource, such as food, which they then eat. If two doves find the food, they share it. If two hawks find the food, they fight and the winner eats the food (unless both are killed.) Fighting may lead to injuries for one or both animals. If a hawk and a dove find the food the dove leaves and the hawk eats the food.

Start with a population of all doves. Then allow a mutation creating a hawk. One hawk in a world of doves does very well since whenever he meets a dove he gets all the food. The hawk does so well that he is more “fit” than the doves. That is, the hawk has more offspring than the average dove, so that in the next generation there are more hawks. This continues for a while, but there are limits. As there are more hawks, the chance of two hawks meeting increases. If two hawks meet they injure each other. That is, the payoff to each hawk from meeting another hawk is less than the payoff to each dove from meeting another dove. So at some point, when the proportion of hawks increases enough, the payoff to being a dove and the payoff to being a hawk are the same. At this point the population is at equilibrium. The actual equilibrium will depend on relative payoffs and on the harm suffered by each hawk, but for our purposes it is enough to note that there is some equilibrium with both hawks and doves coexisting in the population.

This is an example of what is called “frequency dependent selection.” That is, the direction of selection depends on the relative frequency of each type in the society. Should the number of hawks increase to too high a proportion, there are pressures to reduce the number of hawks, and similarly for doves. But the key point is that at equilibrium there will be both types in society as a result of natural forces. Even this simple model requires two types of animals. If there are more strategies, then there can be more types. For example, by adding a third strategy, the “bourgeois” strategy, which is to fight when you are first to arrive, but run if you are second, then there are three types. We can also modify each strategy quantitatively. For example, fight for 10 seconds and then quit if you haven’t won. This leads to many more potential types in society.

Now consider this: Humans play a lot of games which are similar, but not identical, to the hawk-dove game. We can tell the truth or we can lie.

If everyone tells the truth, then a liar can successfully invade, just like a hawk. But if there are too many liars, then no one believes anyone, and there is no payoff from being a liar. Thus, there should be some proportion of honest people in society and some proportion of liars. The possibility of detecting lying adds another dimension: we try to determine if someone is a liar or not because no one (either honest or a liar) wants to do business with a liar. Then we become better or worse at detecting liars, and both the skill at lying and the ability to detect lying can increase over time in a type of evolutionary arms race. But at any given time there are some liars (some better and some worse), some honest people, some who are better than average at detecting liars, and some who are worse.

In a direct analogy to the hawk-dove game, think of bargaining strategies. One can be a hard bargainer or an easy bargainer. Hard bargainers get more when dealing with easy bargainers, but if two hard bargainers meet, they may not reach an agreement and so both lose. Easy bargainers might “split the difference” and so do well when pitted against each other, but fare poorly against a hard bargainer. Again, this would lead to equilibrium, with some people being hard bargainers and some easy bargainers. Moreover, as in the case of the hawk-dove equilibrium, we are not limited to two possible types. Some can bargain “really” hard and some less so. If we think of indexing bargaining by the number of offers one is willing to make, then we can get a large number of types in equilibrium.

Think of desire for dominance. Again, some people are more eager to dominate than others. At equilibrium there would be some individuals who would be more dominant and some who would be more submissive. Other examples include honesty or willingness to cheat, and selfishness or generosity. People may be more introverted or more extroverted. There is evidence that sociopathy follows similar principles, with 1 or 2 percent of the population being sociopaths. (Mealey, 1995). All of these strategies can be broken down further, and there are many more dimensions on which individuals can vary. Reiss (2000) identifies 14 dimensions; Arnhart (1998) identifies 20.

Moreover, this variation is merely genetic. There is also environmental variation. Identical twins, for example, share all their genes and have very similar preferences, but are not actually identical. Other than identical twins, all individuals have different genomes, and no two individuals share the same environment. Moreover, environments will affect different individuals differently. The bottom line is that individuals differ from each other. Any effort to treat all individuals the same will perforce fail, and will lead to great losses in utility or happiness as some individuals will suffer from this attempt. Think, for example, of previous efforts to force all children, including left-handed children, to write right-handed.

Because all individuals are different, there are gains from allowing individuality. These are both private and public gains. Privately, people are happier if left alone to do what they desire, subject to constraints involving harm to others. The left-handed children who were forced to write with their right hand suffered from this forced behavior.

There are also social gains from some (though not all) individuality. In general, if we allow individuals to specialize in what they do best (subject to market prices) then society will be richer because individuals will be more productive than if they could only do what they were told to do. Of course, some specialties will be socially counterproductive, and we try to deter these by punishment. For example, sociopaths are generally not productive, nor are cheaters or robbers. Nonetheless, as a general rule, allowing individuals to express their individuality will generally benefit society. Moreover, as markets become larger (due to increased wealth and greater possibilities for trade) there is more room for division of labor and specialization. This increased specialization allows each individual to choose an occupation that more naturally matches his or her preferences and abilities.

Political freedom

Humans are hierarchical, as are many other species. Males particularly seek to become dominant. Dominant males have greater sexual access and so leave more offspring. This in turn means that the genetic basis for seeking dominance remains strong. This pattern precedes our becoming human; it is common to most mammalian species, and perhaps even reptiles.

Nonetheless, the best evidence we have is that our human (male) ancestors were quite free throughout most of our evolutionary existence and the power of dominants was limited. This may seem counterintuitive. History as studied in school is full of dictators and kings, and most individuals seem to have had little freedom. However, most of our existence as humans and all of the existence of our pre-human ancestors occurred before there was writing, and so before “history.” Indeed, the most important division in human existence is between the long period during which our ancestors were nomadic hunter-gatherers and the period when sedentary agricultural societies came into existence (Kelly, 1995.) During the hunter-gatherer phase of existence, humans were non-hierarchical and relatively egalitarian (Boehm, 1999.) This egalitarianism was maintained in spite of tendencies for males to want to dominate. It was maintained because coercion by dominants was limited. A group of individuals could resist anyone who attempted to obtain too much power (what Boehm calls an “upstart”). Moreover, societies had little or no fixed capital and were nomadic, so that it was possible for a group of individuals to simply leave a would-be dominant behind, and move elsewhere. This led to what is called “reproductive leveling” (Bowles and Gintis, 2011).

About 10,000 years ago, this changed. With the rise of agriculture, societies settled down and became sedentary. With the beginning of sedentary societies, kings and other rulers arose and were able to dominate others. This was partly because the move-away option was lost with the origin of fixed capital. It was also because societies became wealthy enough to support a group of specialists in violence who could support and defend a king or dictator. Because writing began during this period, it is also the beginning of history. This is the period of the beginning of the empires and kingdoms studied by historians.

One important biological characteristic of dominants is the number of wives and concubines available to them. Betzig (1986) has described in detail the sexual access available to dominants. Many kings and emperors had a very large number of wives and therefore descendants. Zerjal and others (2003) have shown that Genghis Khan is apparently the ancestor to 8 percent of the men in the area of Asia conquered by the Mongols. This ability of dominants to engross many women can perhaps explain the desire of our nomadic ancestors to limit the power of dominants and the wisdom of doing so.

Modern western societies have greatly increased political freedom relative to the kingdoms and dictatorships which have dominated human history. Indeed, these societies are the freest that have ever existed. This is because our hunter-gatherer societies provided a lot of freedom for men, but were generally oppressive for women. Modern contemporary western societies provide freedom for both men and women.

Political freedom is fragile and can be lost; consider the example of Nazi Germany. Even without such an extreme example, it is possible for those in power to abuse their position. This may be to unjustly enrich themselves or their relatives or followers. It may also be possible to illegitimately manipulate the political system to maintain power.

While democracy does not guarantee freedom, it is unlikely that there will be long term freedom without democracy. This is because in a non-democratic society the amount of freedom will be subject to the will of the particular dictator in power. One ruler may allow much freedom, but his successor may not. An unrestricted democracy may also restrict the freedom of minorities, whether they are religious, ethnic, or income-based minorities. For example, a majority may impose confiscatory taxes on a wealthy minority. The best system is probably a democracy with binding constraints on the power of government.

Many aspects of political freedom are useful in themselves, but are especially useful for protecting political freedom and avoiding political abuse. That is, these limits can serve as the binding constraints on the power of government, and of majorities (Mialon and Rubin, 2008). Freedom of the press enables people to learn about the behavior of

government, including any efforts by government to expand its power. Freedom of speech enables people to communicate with each other and to protest efforts by government to increase its power. Freedom of assembly enables people to congregate in order to organize protests if government should misbehave. An important issue is captured in the answer to the question: Is everything that is not prohibited, allowed, or is everything that is not allowed, prohibited? That is, is the default that people have rights unless there is explicit authority to limit rights, or is the default that the government must explicitly allow individual actions? The former is consistent with freedom; the latter is not. Probably the most freedom that is possible is a democracy constrained by limits such as these.

The ultimate limit on the power of government is the right of citizens to have arms for self-defense and defense against an overly intrusive government. Of course, what is relevant for freedom is not the statement of these rights; rather, what is needed is actual enforcement of the rights.

Religious freedom

Humans are by far the most intelligent species on earth, by a wide margin. The main evolutionary driving force behind our enormous intelligence undoubtedly has been competition with other humans. Our distant ancestors were probably about as smart as chimpanzees, but with successive populations of humans, for unknown reasons, competition became more intense, and this competition led to increasing intelligence. This competition provides the only potential positive feedback mechanism that would have been necessary to increase intelligence to the level we observe.

This means that our brains evolved to deal with other intelligent beings. As a result, the default when we observe some event is that it is the product of intelligence (Boyer, 2001; Guthrie, 1993; Shermer, 2011). This is the ultimate source of religious belief: we look for intelligence to explain events and we call that intelligence “God” or gods. Once belief in supernatural beings and some sort of religion became established in our minds, it became a tool available for other uses. Two of these uses were the strengthening of morality (Burkert, 1996) and the strengthening of group solidarity. Moreover, we can compare religions in terms of their ability to strengthen or weaken particular groups.

An important feature of religion is that it is totally non-testable. That is, there is no objective or scientific way of determining if a set of religious beliefs is “true.” If things go well, then the gods like us. If things go badly, then we have done something to annoy the gods. There is nothing that can happen that is inconsistent with any conceivable set of religious beliefs, and so no way telling if a religion is correct or not, and no way of telling if one religion is better than another. Thus, Tribe A can have one set of beliefs and Tribe B can have another, and these beliefs can be

inconsistent. In particular, each tribe can believe that its god(s) are stronger than those of other tribes.

But although there is no way of measuring any truth value to religion, some religions may “work” better than others, in the sense that they lead societies that hold those beliefs to be more successful than others. For an extreme example, a religion that believes in complete celibacy will not do well, and will last only one generation. For an even more extreme case, a religion that believes in drinking poisoned Kool-Aid will not even last one generation.

There are less extreme examples. I mentioned that religion can enforce morality. Consider two possible moral tenets associated with different tribal religions: “The gods want you to keep your promises to other members of the tribe”; or, “The gods want you to lie to other members of the tribe whenever it is possible.” While there is no way of telling what the gods really want, the first religion will have more followers than the second simply because followers of the first religion will be more successful and so biologically more fit. That is, keeping promises within the group will lead to increase possibilities for cooperation and so increased wealth and thus increased survival of children, and so increased fitness. Moreover, members of the second tribe, observing the success of the first tribe, will be more likely to try to join that tribe, also leading to faster growth. This may explain why all surviving successful religions advocate reasonably efficient moral values.

Humans are by nature a tribal species, and we easily define in-group and out-group members. When religions were tribal, then religion and tribe would have been mutually enforcing ways of defining group membership. One function of modern religions is to expand the in-group beyond the level of the tribe. In particular, Christianity and Islam both allow and encourage (and sometimes force) conversion of non-tribe members into the religion. While it appears that there is and has been much conflict between different religions and sub-religions (Sunni versus Shiite, Protestants versus Catholics, Christians versus Muslims) nonetheless, by increasing inclusivity and thus increasing group size, religion has probably had the net effect of reducing human conflict.

The key point, however, is that there is no objective way of determining that any religion is more true than another. Moreover, people are often strongly attached to their particular religion. Also, some religions may be more successful than others (in the sense mentioned above) and so competition between religions can lead to increases in efficiency or happiness. Therefore, it would be better if no one attempted to control religion, and the costs of such control can be very high because of the attachment people have to their religion. Thus, religious freedom is a net good for society. This is a two-part freedom. Government should not persecute or

forbid particular religions. It should also not promote one religion over another, but should be neutral with respect to religion. Of course, some may believe that their religion is the only true one, and that everyone should follow that religion. Religious freedom is an important component of freedom, but one which is often under attack.

Crime

Some individuals will always find crime to be a privately useful activity. For some, crime is an efficient way to accumulate resources. Some males may not have access to females for consensual sexual services, and may find rape to be the best substitute. Some may find murder the best way to eliminate rivals (Daly and Wilson, 1988). For reasons having to do with risk-seeking, most crime is committed by young males, although others also commit crimes (Rubin and Paul, 1979). Crime interferes with the efficient functioning of society, and so societies make efforts to reduce the amount of crime, either by deterrence or by incapacitation.

Crime has two adverse effects on freedom. On the one hand, crime or the threat of crime can directly reduce freedom. If I am afraid to visit certain places because of crime, then I am not free to visit those places. If my money is stolen through force or fraud, then I am not free to spend that money. If I fear that my money will be stolen, then I will have reduced incentives to work hard and accumulate wealth. If I am the victim of physical crime (assault, rape, or even murder), then my freedom is clearly compromised. As a result, one of the first duties of government is to protect citizens from criminal victimization.

On the other hand, freedom can also be reduced when government efforts to control crime are excessive. If citizens are subject to random searches, or even to arbitrary arrest and conviction, or if punishments are disproportionate to the harm caused by crime, then again, their freedom is compromised. Thus, crime leads to an inescapable tradeoff: that between security from criminal victimization and security from government overzealousness in preventing crime. There are several dimensions to this tradeoff (which are discussed in Mialon and Rubin, 2007).

First, what rights do the police have in attempting to catch criminals? (Though every society must address these tradeoffs, I discuss mainly the case of the United States since I am most familiar with it.) Some restrictions on the police in the US are as follows. In most cases, police must have a warrant to search. If police conduct a search without a proper warrant, the evidence is “excluded.” Police must refrain from questioning a suspect if he asks for a lawyer, and must inform suspects of the right to have an attorney present. While these particular rights are specific US rights, some limit on the power of the police is necessary and all societies must address the same tradeoffs.

Once a suspect is formally accused, there are several rights associated with the trial process. The most important two rights have to do with the burden of proof and the standard of proof. Perhaps the most fundamental issue is the burden of proof, enshrined in the phrase “innocent until proven guilty.” That is, the burden of proof is on the prosecution (the government) which must prove that the accused committed the crime. It is difficult to conceive of a truly free society that does not honor this principle. Second is the standard of proof needed for conviction —the probability that the accused did commit the crime. In the US that standard is “beyond a reasonable doubt,” enshrined in the maxim, “Better that 10 guilty men go free than that one innocent man is convicted” (Volokh, 1997). Other principles have to do with rules regulating trials: freedom from self-incrimination, the speed of the trial, freedom from double jeopardy, right to a jury trial, and similar procedural rights. If one is convicted, then issues of permissible punishment become relevant. Again, in the US “cruel and unusual punishment” is forbidden. This issue is most relevant today in debates about the legitimacy of capital punishment. Other societies still rely on corporal punishment: whipping or even mutilation.

Again, the key is the set of tradeoffs. Any additional rights granted to accused persons will of necessity lead to more guilty people being freed, which will lead to reduced deterrence and increased crime. Different governments may make this tradeoff on different terms, but all must confront the tradeoffs, and these tradeoffs will always have implications for freedom.

Two additional issues are associated with crime and freedom. One is the ability of individuals to protect themselves from crime. In the US, this is bound up with the right of individuals to possess guns and with rules about their permissible use in self-defense. Many other societies forbid individual gun ownership. (As mentioned above, this right is also associated with political freedom.)

An additional issue is the scope of the criminal law. One concern is the regulation of private behavior, and in particular regulation of the use of drugs. In much of the world, certain drugs (marijuana, heroin, cocaine) are illegal. Libertarians view these laws as being illegitimate. Again, the treatment of these issues is an aspect of freedom. A desire to ban the use of these substances may be related to the evolutionary role of young males in society. Specifically, a society depends on young males to protect it from other societies, but young males themselves are competitive with each other. It is important to limit this competition and to direct the energy of young males away from their own society. Drug consumption may be a form in inter-male competition, where individuals show that they can consume harmful substances and still remain strong. (This is called “handicap” competition (Zahavi and Zahavi, 1997).)

Even where drugs are illegal, societies must make many additional decisions that affect freedom: decisions about methods of prosecution, whether the use of those drugs will be treated as a felony or misdemeanor, severity of sentencing, resources devoted to policing this issue. Moreover, making drugs illegal can affect other aspects of freedom (Miron and Zweibel, 1995). If drugs are illegal, then extralegal methods will be used for enforcement, and this can lead to increases in crime. For example, if the terms of a drug exchange are violated, the aggrieved party cannot use the courts for enforcement, and may instead rely on violence. Increasing the price of drugs by making them illegal can also induce drug users to commit crimes to obtain resources to purchase drugs.

Drug laws in one society can also export crime to another. For example, the US drug laws seem to lead to massive crimes in Mexico as gangs compete for the right to serve the illegal US drug market. While this aspect of drug laws may not have a direct impact on most US citizens, it should be a consideration in deciding on domestic policy.

Discrimination

In an ideal world, all rights would adhere to individuals as individuals, not to individuals as members of a group. Any violation of this principle, by private citizens or by governments, may be viewed as an infringement of freedom because some individuals will be denied some rights due to their birth. However, as discussed below, there are limits to discrimination by individuals, so there is greater danger of government violation of individual rights. Governments may discriminate against minorities or against majorities. There is also gender discrimination. All three types interfere with freedom.

Private versus government discrimination

If there is private discrimination, then there are market forces that will reduce or eliminate this discrimination. For example, consider employment discrimination. If it exists, then employers will pay more for workers than they would pay absent the discrimination. This is because discrimination essentially reduces the supply of workers, and a reduction in supply leads to higher wages. This creates an incentive for some employers to ignore the discrimination and hire the victims. Even if no current employer is willing to do so, new employers can enter the market and still make a profit, as when northerners opened textile firms in the US south and hired black workers who were discriminated against by southern employers. Similar forces work to reduce or eliminate discrimination against certain customers. Note that it only requires that some firms be willing to break the pattern of discrimination; it need not be a unanimous or even a majority decision. It might be possible to

maintain a private system of discrimination if there are terrorist groups willing to enforce the discrimination (e.g., the Ku Klux Klan) and if the public authorities do not interfere, but otherwise the amount of such discrimination is limited.

On the other hand, government can enforce discrimination because competition for government services is limited and because government has access to tax revenues to finance losses. For example, again in the US south, it was possible to maintain a racially segregated school system as long as white voters wanted this system and African-Americans were disenfranchised. There was no internal constraint on the ability of government to engage in this behavior. There was no possibility of a competing publicly financed school system to break down this discrimination.

Discrimination: minorities or majorities

Some societies discriminate against minorities, as the US did with respect to blacks before the Civil Rights era. Minorities may be denied employment rights or government services (e.g., provided with no or inferior education.) This may be because majorities do not want to associate with minorities (Becker's "taste for discrimination" (Becker, 1956, 1971)) or because majorities save money by discriminating (inferior schools are cheaper). Majorities may also want to eliminate the competition that minorities present; this has been a common motive for anti-Semitism and other forms of discrimination, including some aspects of apartheid in South Africa.

Societies may also discriminate against majorities. For example, affirmative action as practiced in the US and elsewhere (Sowell, 1990) is basically a form of discrimination against majorities. Part of the explanation for this form of discrimination is standard public choice analysis. Once minorities are no longer disenfranchised, then members of the minority group have a stronger interest in favorable discrimination than the interest of majority members in avoiding discrimination. That is for standard reasons. If blacks are 10 percent of the population, then on average, the benefits of affirmative action are nine times as large for each beneficiary as the cost to each majority member. Moreover, programs such as affirmative action will create a body of bureaucrats with an interest in enforcement, and these individuals will also act as a special interest group.

Public choice analysis is not sufficient to explain such discrimination, however. This is because there is discrimination in favor of some, but not all, minorities. For example, in the US, there is discrimination in favor of African-Americans and Hispanics, but not Asians or Jews. Some additional element is needed to explain this discrimination. This is probably some guilt on the part of majorities regarding the past or present treatment of the favored minority.

Discrimination by government may be particularly pernicious. That is because, as mentioned above, humans are a naturally tribal species. When members of one group perceive that they are being discriminated against in favor of members of some other group, this can lead to dislike of the favored group.

Gender discrimination

Most societies have discriminated against women and such discrimination is still common. In most Islamic societies women are denied many rights. In much of Asia there is even prenatal discrimination, with selective abortion against female fetuses so that more children will be male. Wife-beating has been a feature of every pre-literate society (Edgerton, 1992). In the West, women were only granted the vote in the late nineteenth or early twentieth century (e.g., New Zealand, 1893; US, 1918); other rights came even later.

As for other aspects of freedom, there are two benefits to gender equality. There is a utility benefit, as women clearly are less happy when discriminated against. There is also an economic benefit. Countries that deny economic rights to women are losing about one half of their labor force, and so they have greatly reduced productivity. Women who are forced to remain at home can produce some economic output, but not nearly so much as can be produced in the labor force.

Trade

International trade can increase freedom by increasing the set of goods available to consumers. Trade does this both by expanding the physical set of goods available and by reducing prices of goods that may already be available. Thus, such trade is an important component of freedom. While free trade is perhaps a component of economic freedom, I mention it here because views on trade are closely bound up with our evolved preferences, and because attitudes towards trade are also closely related to attitudes about immigration and treatment of foreigners.

There are two reasons related to human information processing as to why international trade is a politically difficult issue. First, our natural way of thinking is zero-sum. That is, our minds are not well adapted to thinking about positive-sum interactions. This is because for most of our evolutionary history our ancestors lived in a zero-sum world with little in the way of technological change or investment, and only small gains from trade (Rubin, 2003). As a result, we do not easily perceive that trade, and particularly international trade, benefits both parties. Moreover, zero-sum thinking also applies to the issue of jobs, so our natural way of thinking is that when we buy something made by foreigners, someone from our own society must lose a job.

Second, as mentioned above, we are a tribal species. This means that we put much more emphasis on our own welfare than on the welfare of those outside the tribe, which would include citizens of other countries. This combination means that when untrained people think of trade, they think of our tribe members losing jobs to foreigners, and find this thought repugnant. Of course, training in economics can teach people that their first thought is incorrect, and economists have done a remarkable job of convincing citizens that trade is beneficial and tariffs are harmful, but people must be convinced. Understanding the benefits of trade does not come without some effort at learning.

The freedom project

As mentioned above, there is an effort to develop a set of measures of non-economic freedom to complement the Economic Freedom of the World project. The analysis here suggests a classification scheme for this project. This is based in part on categories discussed in Vasquez and Stumberger, 2012. While the individual items suggested by Vasquez and Stumberger will fit into the categories discussed below, the organization of these categories is somewhat different.

Individuality and personal freedom

Some measures would apply to human individuality and to personal freedom. These would include measures of sexual freedom, such as rights of homosexuals and of sex workers. Restrictions on behavior, such as limits on gambling and pornography, and on drug use, would also fit into this measure (but perhaps in the section on crime), as would abortion restrictions. Perhaps a measure of the availability of private schools would be appropriate here as well. There is also the issue of military conscription, a restriction on freedom that leads to a mismatch between people and skills.

Political freedom

One measure would apply to political freedom. There are various direct measures, such as measures of government turnover (a measure of actual political competition) and measures of democratic institutions. Items such as actual government oppression (e.g., political imprisonment) would belong in this category. There are also measures of the inputs to political freedom, such as freedom of the press and freedom of assembly. These are the constraints on government political power. Rights to gun ownership would also be in this category.

Religious freedom

Religious freedom comes in two parts. First is the freedom of religion. That is, are people allowed to worship in whichever way they desire? This

issue might overlap with the issue of discrimination, if some discrimination is religious. Second is freedom from religion: Is there a state religion, and are people taxed to support a religion that may not be theirs?

Crime

There are two issues with respect to crime and freedom. First is the degree of victimization: What are crime rates? How likely is the average person to be a victim of crime? Second is the measures governments take to control crime, and the impact of these on individuals. What are the rights of the accused? What restrictions are there on the state in fighting crime? How powerful are the police and what restrictions are there on police power? For many people who may not have an interest in politics these freedoms (from crime and from police) are likely to be the most important. Because regulation of some aspects of behavior (drugs, pornography, gambling) are criminally enforced, some of these issues might fit here instead of in the personal freedom section.

Discrimination

Issues of discrimination are complex. We must first distinguish types of victims of discrimination: minorities, majorities, and women. We must then distinguish between private and government discrimination. Then there are various forms of discrimination. Is there employment discrimination? Educational discrimination? Political discrimination? Restrictions on consumption (e.g., “ride in the back of the bus” rules, or segregated public facilities, such as restaurants)?

International trade

To what extent are people allowed to purchase goods that are made in other countries? Are there tariffs or non-tariff trade barriers? Are there other restrictions on the international movement of people or goods? Is emigration allowed? We might also include rights of non-citizens in this category. Are non-citizens allowed civil rights? Allowed to work? Subject to random deportation?

Summary

Our evolutionary background has caused us to value freedom. However, this same background has meant that we have tendencies that also cause us to limit freedom. Individuals want to become dominant, and institutions of political freedom are necessary to prevent this from happening. Crime can limit our freedom, and efforts to control crime can also limit freedom, so a careful balance is necessary. Although it is not possible to test religious beliefs, many are convinced that they have seen the “truth,” and so may want to restrict the ability of others to worship as they may

desire. We may dislike members of other “tribes” and want to deny them freedom. Most human societies have limited the freedom of women, harming both the women themselves and also limiting the wealth of society. International trade can increase our freedom by providing cheaper and more varied goods for consumption, but our natural way of thinking does not understand these benefits. For these reasons, some in society try to limit freedom. Vigilance to prevent these limits is important. Moreover, understanding of these evolved interferences with freedom can help us decide what to measure in an effort to devise freedom indices.

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