

Chapter 8

Excise Taxes: Economics, Politics, and Psychology*

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The imposition of taxes on specific consumption goods and services (i.e. excise taxes) not only is a time-honoured activity but also makes common sense: government financing can be combined with other important social goals, in particular the reduction of externalities (costs imposed on other people) by making the taxed goods more expensive. Thus two goals can be attained at the same time, which makes taxation an attractive option.

Excise taxes¹ enable us to reduce activities considered socially undesirable, such as environmental pollution, tobacco, alcohol, and drug consumption, gambling, and road congestion.² The theoretical prediction that the induced relative price effect actually works is supported by considerable empirical evidence.³ The extensive economic theory of taxation applied to excises produces important insights that are far from being trivial. But this theory concentrates only on a limited number of aspects traditionally considered to be 'economic'; other equally important aspects tend to be ignored. I wish to argue that excise taxation under identifiable conditions leads to undesired and even counterproductive outcomes. This does not mean that excise taxes should not be used, or even that they should be used less. But it does mean that their relative advantages and disadvantages should be evaluated carefully in the light of other methods of taxation and of economic and social policies in general.

This chapter endeavours to focus on the aspects of excise taxation that have been neglected. Section 8.1 deals briefly with some of the largely ignored and unresolved problems arising in the standard theory of excise taxation. Section 8.2 considers excise taxation from the political point of view, based on constitutional economics. Section 8.3 centres on psychological aspects and is based on economic psychology. As these aspects are less well known in economics and in the taxation literature, they are discussed at greater length. Section 8.4 concludes.

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8.1 FIVE PROBLEMS IN THE STANDARD THEORY OF EXCISE TAXATION

The following five aspects are well known in the theory of (excise) taxation, but may not always receive sufficient attention, because they are not considered to be fully within the realm of efficiency-focused economic theory. For that reason, they are mentioned but not extensively discussed.

8.1.1 *Externalities*

An attractive reason for using excise taxes is to reduce the externalities generated in the production, and especially consumption, of specific goods and services. The most prominent examples are the taxation of tobacco, alcohol, and gambling.

It is, however, well known that such an approach is only a compelling reason for levying a tax, and only then leads to a socially improved allocation of resources, when two conditions are met:

- The externality must be ‘substantial’. The world is full of externalities. If the government decided to tax all externalities, it would be intervening everywhere. Hence, only those externalities that are clearly of greater consequence than others should be addressed. However, it is doubtful whether the excise taxes we observe meet that condition. Is it, for instance, obvious that the social costs of gambling are much larger than the social costs of engaging in dangerous sports (such as, for example, skiing or amateur soccer)? It may well be that dangerous sports produce higher external social costs (for example, in terms of socially insured health costs and working days lost) than gambling. But dangerous sports are not subject to a special excise tax. In fact, many countries heavily subsidize sporting activities. Another instance is overeating, which has become a major problem in developed countries, as the average weight of the population has been increasing rapidly in recent decades. A significant number of people (especially in the English-speaking countries: the USA, the UK, Canada, Australia, and New Zealand) are seriously overweight (see Offer (2001), who gives extensive empirical evidence). This imposes high, partly externalized health costs. Overeating is not tackled anywhere by imposing a specific tax related to increasing body weight.
- Approaches other than taxation may be more effective in reducing external effects. Smoking may be a case in point. The use of tobacco has been penalized for a long time by a substantial special tax, but most countries obviously do not consider that to be sufficient. In recent years, in addition, various types of smoking restrictions have been introduced. According to my subjective impression, the passive smoking imposed on other people in public spaces, especially in restaurants, has thereby been greatly reduced. One reason may be that such direct intervention makes clear that the government disapproves of smoking (‘expressive function of the law’). Taxes do not serve this function of moral disapproval.⁴

These considerations suggest that the identification of an external effect is certainly not sufficient reason for imposing an excise tax. This conclusion conforms to economic theory, but its consequences have not always been taken seriously.

8.1.2 *Undesired Side Effects*

Imposing a higher excise tax on a particular good means that the relative price of a substitute good falls at the same time, and that the latter's consumption increases. Empirical research (for example, Farrelly et al. (2001b)) indeed suggests that raising the price of alcohol raises the level of consumption of marijuana. But even keeping preferences constant, such an undesired effect does not necessarily occur if the income effect is sufficiently strong. Various goods subject to excise taxation may also be complementary (for the evidence, see Saffer and Chaloupka (1998, 1999)), i.e. taxing alcohol reduces the consumption of both alcohol and drugs.

The econometric estimates are not robust enough to be able to predict whether such undesired side effects occur, but they have to be taken into account when applying a particular excise tax.

8.1.3 *Undesired Effects on Equity*

In order to raise a particular sum of revenue, goods and activities with low price elasticity should be taxed more highly than those with high price elasticity (Ramsey rule). But in many cases, this requirement raises serious distributional concerns. Often, consumers with less ability to find a substitute for more highly taxed goods or services have below-average incomes and are therefore taxed more heavily than higher-income consumers. Moreover, they often belong to minority groups, which need to be protected in the political process. In the USA, women, adults with an income at or below the median income, young adults, African-Americans, and Hispanics are indeed most affected by higher cigarette prices (Farrelly et al., 2001a) and therefore by an increase in tobacco taxes. Road pricing also tends to have a regressive income effect (see, for example, Button and Verhoef (1998) and Richardson and Bae (1998)). The conflict between allocational efficiency and equity concerns is well known and should not be overlooked.

8.1.4 *Tax Compliance*

Taxation leads to tax evasion. The crucial question is to what extent this is the case. The standard economic theory of tax evasion (based on Becker (1968) and worked out by Allingham and Sandmo (1972); a recent survey is Andreoni, Erard, and Feinstein (1998)) is based on the deterrent effect of the probability of being caught and the size of the penalty. At least with respect to income taxation, this model has not worked very well: the level of tax compliance is

difficult to account for, and in almost all studies, the deterrence variables have no statistically significant effect on evasion (see, for example, Alm, McClelland, and Schulze (1992), Graetz and Wilde (1985), Skinner and Slemrod (1985), and Pommerehne and Frey (1992)).

In addition to the extent of evasion, it is important to consider how the respective underground activities affect societies. In many cases (for example, gambling, drug, and alcohol production and consumption), the external effects are much larger when occurring in the black economy. In so far as this applies to a particular excisable good, the tax should be used restrictively. But it should always be kept in mind that an outright prohibition of such consumption leads to much worse consequences.

8.1.5 *Administrative Costs*

The cost of raising an excise tax varies greatly and often depends to a large extent on technological developments (Cnossen, 2002). Thus, up until recently, road taxes were considered to be costly to administer. This seems to be much less the case today.

8.2 POLITICO-ECONOMIC CONSIDERATIONS

Governments have used certain excise taxes extensively, such as those imposed on alcohol, cigarettes, and gambling. Other excise taxes have been used only reluctantly, such as those placed on drugs, environmental pollution, and especially traffic congestion (road pricing). How can these differences be explained?

Optimal taxation theory, seeking to maximize social welfare, suggests broadly based taxes, which distort the allocation of resources less than narrowly based taxes and secure a steadier stream of revenue. The welfare-maximizing approach therefore finds it difficult to account for the differences observed. In contrast, the politico-economic point of view looks at the incentives faced by politicians seeking re-election. An important means for a government to ensure survival is to finance government expenditures with as little popular resistance as possible. Excise taxes on goods generally known to be harmful (and with respect to which people have a bad conscience when they indulge in their consumption) – in particular, alcohol, tobacco, and gambling – provide a welcome opportunity for politicians. They claim to help consumers overcome their weakness. In addition, the demand for consumption is inelastic and excise taxes are easy to apply. Thus, revenue can effectively be raised by tax hikes.⁵ The situation is different in the case of drugs, because the price elasticity of demand is higher and people can quite easily escape taxation. Imposing high taxes on drugs risks driving their consumption underground, which creates problems for the politicians in charge. Both environmental and congestion taxes are unpopular with the population for psychological reasons, which will be discussed in the next section. Politicians are therefore reluctant to use

them (see Oberholzer-Gee and Weck-Hannemann (2002)). They prefer direct interventions via commands and controls, which have the added advantage that any successes can more easily be attributed to the government's actions (Frey and Schneider, 1997).

From a constitutional point of view (see, for example, Frey (1983), Buchanan (1991), Mueller (1996), and Cooter (2000)), taxes should be as nearly as possible designed as benefit levies, because this induces governments to provide services valued by the citizens (Brennan and Buchanan, 1980, 1985). Excise taxes are indeed narrowly based and do not ensure a steady source of income. To the extent that consumers react in a price-elastic manner, tax revenue falls when the tax rate is raised. The government therefore has an incentive to restrain substitution possibilities in order to reduce the price elasticity of demand.

Road pricing provides an example. When car drivers are charged on the basis of the traffic congestion that exists, tax revenue can be raised by closing alternative roads to which car drivers could switch. Revenue is also increased when switching to alternative transportation modes – in particular, public transport – is made more difficult, although this policy achieves exactly the opposite of what road pricing should lead to. In an age of environmental awareness, no government will advertise such a policy, but the effect of blocking any possible substitution may still be achieved by turning a blind eye.

If it is to be expected that governments act in a counterproductive way when they switch from income and corporate taxes to excise taxes, the latter become less attractive from the constitutional point of view. Behind a veil of ignorance, citizens must balance the advantage of restricting the growth of the public sector by assigning a narrow tax base with the disadvantage of giving the government the distorting incentives just described. It should be noted that the perverse incentives of the government differ from one excise tax to another. In so far as the supply of alternatives is guided by markets (for instance, in the case of alcohol, by the private supply of non-alcoholic or low-alcoholic beverages), no such counterproductive effect takes place. Economic research must provide the information to the citizens so that they can reach a well-reasoned decision when voting. Direct referendums are well suited for this purpose (see Frey (2001, ch. 9) and Kirchaessner, Feld, and Savioz (1999) for a collection of the empirical evidence available). As Reiner Eichenberger, in his comment on this contribution, shows, a Swiss commune recently accepted a well-worked-out system of road pricing following a direct referendum. The same result may only indirectly be achieved in a representative democracy by voting for a party supporting a corresponding policy.

8.3 PSYCHOLOGICAL CONSIDERATIONS

Economic psychology⁶ suggests three major aspects in which excise taxes depend on psychic influences.

8.3.1 *Fairness*

It has been empirically well established that neoclassical professional economists are fond of the price system (Kearl et al., 1979; Frey et al., 1984), while most other people are reluctant to use it or even abhor it (Kahneman, Knetsch, and Thaler, 1986). In a representative survey of the Zurich population (Frey, 1999b, ch. 10, p. 169), only 27 per cent found the price system 'fair' in a well-defined situation of excess demand, while 73 per cent found it 'unfair'. In contrast, an allocation of the excess demand by the public administration was considered fair by 43 per cent and unfair by 57 per cent. Even more acceptable is an allocation according to the traditional principle of 'first come, first served', where the relationship between fair and unfair is 76 per cent to 24 per cent. Only a random allocation is considered to be less fair than the price system (14 per cent to 86 per cent). While one must always be careful not to overgeneralize such findings, they suggest that governments are rather reluctant to introduce new prices in order to influence people's behaviour. A pertinent example is road pricing, which often meets with strong resistance in the population (see, extensively, Jones (1995, 1998)). In consequence, it has been applied only very rarely.⁷ This is only in part due to failure to understand how it is supposed to work, and must also be attributed to a more general lack of trust in the price system. It must therefore be taken into account that an effort to influence consumption behaviour via excise taxes does not meet with much popular support, and in many cases will be strongly opposed.

Quite a different aspect of fairness is also relevant when considering the use of excise taxes. Fairness refers not only to outcomes but also to procedures. As has been shown in psychological research (Tyler, 1990; Tyler and Blader, 2000), people are more willing to accept an outcome unfavourable for themselves if the process leading to this outcome is perceived to be fair. There is a higher degree of consensus with respect to what constitutes a 'fair process' than to what constitutes a 'fair outcome'. Most importantly, the concerns of the people affected must be seriously taken into consideration, and they must have the opportunity to participate in the decision-making process. These are exactly the features of a sound democratic process. It has indeed been argued that, in a well-developed democracy, the citizens are more willing to accept policies in the general interest. They act in a less selfish way and exhibit a higher amount of civic virtue and social trust (see, for example, Mansbridge (1994), Putnam (2000), and Eichenberger and Frey (2002)).

These insights are of direct consequence for the introduction of excise taxes. Even if the citizens are reluctant to accept a new excise tax (as is the case for road pricing and, to some extent, also for environmental taxes), the opposition may be reduced and even won over if the process of introduction is perceived to be fair. The psychological results underscore the importance of using the democratic decision-making process instead of a technocratic approach.

8.3.2 *Weakness of Will*

Excise taxes on tobacco, alcohol, drugs, and gambling not only endeavour to reduce the negative externalities imposed on other people but are also meant to restrict and prevent self-destructive tendencies. Individuals are supposed to be, to some extent, weak willed. They are quite well aware of what would be good for them, but they have insufficient will-power always to act accordingly. Every constrained eater or smoker knows how relevant weakness of will is for daily consumption decisions.

Weakness of will reflects itself in time-inconsistent choices (Strotz, 1956; Hoch and Loewenstein, 1991). There are two very different ways of dealing with this issue (Ainslie, 1992; Loewenstein and Elster, 1992; Elster, 1999).

The standard economic approach, championed by Becker (1976; also Stigler and Becker (1977)), assumes that consumers systematically react to the induced relative price increase of the taxed goods despite a possible weakness of will. Addiction as a manifestation of weakness of will is part of a rational individual consumption plan (see Becker and Murphy (1988)). Therefore, even 'addicts' consume less in the long run when prices rise. This approach is consistent with specific empirical observations (for cigarette consumption, see Becker, Grossman, and Murphy (1994) and Chaloupka (1991); for alcohol, see Cook and Moore (1999); for drugs, see Grossman and Chaloupka (1998)).

Many economists and other social scientists do not find the idea of 'rational addiction' convincing. They prefer not to assume that individuals are rational but to assume that there are areas of life where rationality is less pronounced. For them, weakness of will with respect to the consumption of particular goods, such as drugs, tobacco, or alcohol, is an instance in which rationality is imperfect and its extent has to be explained rather than assumed (Elster, 1979, 1986). An example would be heavy drug addicts who have at least partially lost the ability for rational thinking. Recently, it has become fashionable to suggest that people (and animals) discount future rewards hyperbolically rather than exponentially (Loewenstein and Prelec, 1992; Laibson, 1997). As a result, rewards become more attractive the closer they come in time. At some point, the ranking of preferences is reversed, so that an inferior reward in the here-and-now dominates a superior reward some time in the future. People then act in a myopic way and indulge in consumption activities that they will regret later.

On the basis of empirical evidence, it is not possible to choose between the two approaches, because they focus on different aspects.

Nevertheless, it is possible to derive conclusions about the influence of excise taxes on consumption that are consistent with both approaches:

- An excise tax tends to influence behaviour systematically, but in some cases it is rather ineffective. The marginal effect on consumption of an increase in the excise tax rate often turns out to be small in econometric estimates (for example: Wasserman et al. (1991) for cigarette smoking; Saffer and Chaloupka (1999) and Cook and Moore (1999) for alcohol, cocaine, and heroin consumption; Ramjerdi (1995), Sipes and Mendelsohn (2001),

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and Newbery (this volume) for road congestion). This could, in principle, be compensated by a correspondingly large increase in the tax rate. However, high rates of taxes have several major drawbacks: they are likely to be perceived as unfair and therefore tend to be opposed. The switch to substitutes may have undesired side effects. Thus, it has been found that smokers in high-tax American states reduce the number of cigarettes consumed per day, but their total daily tar and nicotine intake is unaffected. For young smokers, aged 18–24, the total daily tar and nicotine intake even increases after a tax hike (Evans and Farrelly, 1998). In addition, the incentive to switch to the underground economy increases. As a result, uncertainty about the quality of the substitute product increases. The last effect has had severe health consequences for those individuals buying in the shadow economy, especially in the case of alcohol prohibition in the USA in the 1920s and drug prohibition today (see, for example, Frey (1997)).

It should be noted that these negative effects of excise taxes typically only take place with (very) high, and sometimes even prohibitive, tax rates. In that case, the qualitative effects are similar to outright prohibition. However, the damage produced tends to be smaller because the imposition of taxes allows people to carry the higher cost rather than switch to the shadow economy, which, in the case of prohibition, is the only resort left for consumers.

- A more effective way to influence consumption than raising excise taxes has proved to be curtailing availability in particular locations and for particular groups of people. Pertinent examples are illicit drugs (when Zurich's 'needle park' was closed by the police, a large number of young and casual drug users discontinued their habit; see Frey (1997)) and smoking (which in many countries today has become difficult to practice; see the empirical evidence of the effects in Chaloupka and Grossman (1996)). It is not argued here that reducing availability 'solves' the problem of addiction, but it helps to overcome the weakness of will for many people. As with many other activities, the 'demand' to indulge the weakness of will is, *ceteris paribus*, lower the higher the cost of consumption due to taxes. As easy availability is often the major non-substitutable cost component, reduced availability tends to decrease consumption appreciably for many people in many situations.

The largest effect in terms of negative externalities accompanying the consumption of addictive substances is attained when the availability of such goods for hopeless addicts is at the same time increased. One possibility is that the government provides the opportunity for consumption to that particular class of people. The separation of such markets proves to work much better than often predicted, at least in the case of heavy drugs such as heroin. On both markets, it makes sense not only to steer supply to a certain extent, but also to impose excise taxes.

8.3.3 *Crowding Out Intrinsic Motivation*

The imposition of excise taxes may lead to two undesirable consequences through the negative impact on behaviour undertaken for its own sake (that is, for intrinsic reasons). This effect has been studied by social psychologists as ‘hidden costs of rewards’ (Lepper and Greene, 1978; Deci and Ryan, 1985; Deci with Flaste, 1995). It has been introduced into economics as ‘crowding theory’ by Frey (1997). It is supported by a large number of experiments (an important meta-study is Deci, Koestner, and Ryan (1999)) as well as by econometric studies of real-life events (see Frey and Jegen (2001)).

- Government intervention in a market via excise taxes tends to shift perceived responsibility from individuals’ own sphere (their intrinsic motivation) to the public realm. This crowding-out effect only takes place if the individuals previously reduced their consumption for intrinsic reasons and if the imposition of the tax is perceived to be controlling. An important case in point is the taxation of pollution according to a market-based environmental policy. The introduction of a tax on the negative external effects runs the risk of undermining environmental morale. Intrinsic motivation not only may be negatively affected in areas where the pollution tax is applied, but may spill over to other areas (‘motivation spillover effect’). As not all areas of the environment are suitable for excise taxation, the policy intervention may on the whole worsen, rather than improve, environmental conditions (see, more fully, Frey (1999a)).
- The excise is considered a ‘licence to do’. The government finds it difficult, and in most cases impossible, simultaneously to condemn an activity and nevertheless benefit from it in the form of revenue. Many individuals lose their bad conscience (a form of intrinsic norm and motivation) and accordingly consider the tax to be just another price. The relative price effect is thereby unaffected, but the intrinsic motivation not to engage in the activity is crowded out. This effect is likely to occur in the case of environmental taxes and also road pricing (see, for example, Goodin (1994), who speaks of ‘selling environmental indulgences’).

8.4 CONCLUSIONS

Excise taxes in the areas of environmental pollution, tobacco, alcohol, and drug consumption, gambling, and road congestion are faced with five ‘classical’ problems regarding the identification of negative external effects, undesired side effects, distributional concerns, tax compliance, and administrative costs. These problems are well known and can be analysed successfully within accepted neoclassical economic theory.

The main focus of this chapter has been on aspects that have proved to be difficult or even impossible to approach fruitfully within neoclassical economics. It is argued that important insights can be gained by taking political and psychological elements into account and, if necessary, by going beyond existing theory.

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The politico-economic aspects of excise taxation relate to the current policy process as well as to the constitutional level. Reasons are given why some excise taxes are widely applied (especially those on tobacco, alcohol, and gambling) while others are used sparingly (especially road pricing, and also environmental taxes). At the constitutional level, the differing interests of governments and the population at large with respect to the extent and intensity of (excise) taxation are emphasized.

The introduction, as well as the consequences, of excise taxation depends greatly on psychological factors. Such taxation is often considered to be unfair by the consumers affected by it. It is argued that the ensuing resistance can be overcome, at least partially, by a procedure that is considered to be fair. The weakness of will of individuals, or their self-destructive tendencies, is an important reason why government interferes with consumption. This view is disputed by the neoclassical approach built on 'rational addiction'. However, recently, the concept of hyperbolic discounting has gained prominence as an explanation for human myopia. It helps to explain why consumers take short-run decisions that they themselves consider to be suboptimal over the long run. Imposing excise taxes may crowd out people's intrinsic motivation; people may lose their sense of responsibility to act in a socially beneficial way.

Excise taxes are thus faced with many problems. But a reasonable economic policy always compares a policy with feasible alternatives. In the areas where excise taxes are applied, governments often resort to total prohibition. Examples are alcohol prohibition in the USA in the 1920s and 1930s, and today's drug prohibition in, for instance, the USA, France, and Sweden. In some countries, considerable efforts have also been made to prohibit gambling. The chapter repeatedly points out that, in most cases, total prohibition produces much stronger negative external effects than excise taxation does.

There is no such thing as an 'ideal' economic policy, and certainly not an 'ideal' tax policy. Each economic policy has its advantages and disadvantages, which must be studied carefully. When undertaking such comparisons, it is important not to focus on extreme policies, such as total prohibition on the one hand or exclusive application of excise taxes on the other hand – for example, steering all traffic by road taxes. Rather, it is necessary to search actively for ways to apply excise taxes in combination with other policy instruments. Such a policy mix is difficult and cumbersome, but is the only approach promising results in the interest of the population at large.

Notes

- 1 General discussions on excise taxes are provided, for example, by Shoup (1983), Cnossen (1977), and, in the context of general taxation, Cnossen (2002), as well as by the contributions to this volume.
- 2 On the environment, see, for example, Cnossen and Vollebergh (1992); on tobacco, see Jha and Chaloupka (2000), Cnossen (2001), and Cnossen and Smart (this volume); on alcohol, see Cnossen (1981) and Smith (this volume); on drugs, see

Frey (1997); and on road congestion, see Johansson and Mattson (1995), Button and Verhoef (1998), and Newbery (this volume).

- 3 It is possible here to indicate only some results. For the USA, the price elasticities have recently been estimated to be -0.30 for alcohol, -0.28 for cocaine, and -0.94 for heroin (Saffer and Chaloupka, 1999).

For cigarette consumption, a well-known US study is Becker, Grossman, and Murphy (1994), who find that the long-run price elasticity is almost twice as large as the short-run elasticity. Chaloupka and Grossman (1996), also for the USA, estimate the price elasticity for the cigarette demand of youth to be -1.3 , but the earlier estimate by Wasserman et al. (1991) finds a lower figure (0.06 for 1970 and -0.23 for 1985). According to Taurus, O'Malley, and Johnston (2001), the consensus estimate for adult demand is -0.3 to -0.5 but the price responsiveness of youth is up to three times as large. In absolute terms, Moore (1996) calculates that a 10 per cent increase in tobacco taxes saves over six thousand lives a year in the USA.

Cook and Moore (1999) and Crawford, Smith, and Tanner (1999) show that alcohol consumption reacts negatively to higher taxes and prices. The negative external effects of drunk driving have been calculated by Mullahy and Sindelar (1994) and Grossman et al. (1993). Levitt and Porter (2001) find that the negative external cost per mile by a drunk driver amounts to at least 30 cents.

Drug prohibition is estimated by Farrelly et al. (2001b) and Saffer and Chaloupka (1999) to have a negative effect on drug consumption. Grossman and Chaloupka (1998) calculate that the price elasticity for cocaine consumption is substantial, at -1.35 . Van Ours (1995) estimates that in the Dutch East Indies (1923–38), the short-term price elasticity of opium consumption was -0.7 and the long-run elasticity -1.0 .

Farrell, Morgenroth, and Walker (1999) show that the price elasticity of demand for gambling is negative.

The toll price elasticity of road pricing has been estimated to be negative but rather small (for example, for Oslo, -0.04 – Ramjerdi (1995)).

- 4 After all, governments do not disapprove of work but nevertheless they tax it heavily.
 5 According to Cnossen (2001, p. 233), 'governments are never addicted to this lucrative and cheap source of revenue'.
 6 Surveys are Furnham and Lewis (1986), Lea, Tarpy, and Webley (1987), MacFadyen and MacFadyen (1987), van Raaij, van Velthoven, and Waerneryd (1988), Earl (1990), Rabin (1998), and Frey and Benz (2002). Specific contributions include Scitovsky (1976), Kahneman, Slovic, and Tversky (1982), Frank (1985, 1988), Elster (1998), Frey (1997, 2001), and Frey and Stutzer (2002).
 7 'The outstanding fact is that after 30–40 years of analysis, research, and discussion, a pure policy of road pricing has been adopted in only one city, Singapore' (Thompson, 1998, p. 95).

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*[J1]Wasserman et al. (1991) isn't referred to. Is it OK to delete it?