

# Incentives, Equity and the Able Chooser Problem

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**Abstract:** Health incentive schemes aim to produce healthier behaviours in target populations. They may do so both by making incentivised options more salient and by making them less costly. Changes in costs only result in healthier behaviour if the individual rationally assesses the cost change and acts accordingly. Not all people do this well. Those who fail to respond rationally to incentives will typically include those who are least able to make prudent choices more generally. This group will typically include the least advantaged more generally, since disadvantage inhibits one's effective ability to choose well and since poor choices tend to cause or aggravate disadvantage. Therefore, within the target population, health benefits to the better off may come at the cost of aggravated inequity. This is one instance of a problem I name the Able Chooser Problem, previously emphasised by Richard Arneson in relation to coercive paternalism. I describe and discuss this problem by distinguishing between policy options and their effects on the choice situation of individuals. Both positive and negative incentives, as well as mandates that are less than perfectly effective, require some sort of rational deliberation and action and so face the Able Chooser Problem. In contrast, effective restriction of what options are physically available, as well as choice context design that makes some options more salient or appealing, does not demand rational agency. These considerations provide an equity-based argument for preferring smart design of our choice and living environment to incentives and mandates.

## The Able Chooser Equity Problem

Incentive schemes are increasingly used to promote health outcomes in countries rich and poor. For example, conditional cash transfers have been effective in improving the uptake of regular check-ups, health education workshops, and vaccination in low-income and middle-income countries.<sup>1</sup> [1] In the USA, incentive schemes, mostly based on cash transfers or vouchers, have been effective in promoting both on-off behaviors such as vaccinations and screenings, as well as complex behaviors such as smoking cessation.[2]

Incentive schemes most often target disadvantaged populations and are partly motivated by equity concerns. However, many different factors affect the equity effects of an incentive scheme. Important factors include who can access the scheme, what benefits are offered, and whether participation has any stigmatizing effect. It is a matter of ongoing debate which are the most important factors, how important they are, and how they interact to affect outcomes. In this contribution, I will focus almost exclusively on one factor that has received very little attention in the debate on incentives schemes: the varying ability of those in the target population to make choices that are in line with their own interests. To the extent that an incentive scheme operates by appealing to rational preferences, this ability will be crucial to whether or not any particular individual will benefit from the scheme.

Political philosopher Richard Arneson has repeatedly pointed out that paternalistic policy that restricts choice typically have egalitarian effects, because those that are worse off than others are also typically less able choosers. If people are left free to choose, less able choosers will more often make poor choices and so existing inequalities will be reinforced:

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<sup>1</sup> Many of these schemes target families and the benefits are often primarily directed at the children while their parents or guardians make the choices on which these benefits are conditional. I will disregard this complication, noting only that the well-being of one's children is often intimately related to one's own well-being. For the purposes of my argument, families may be considered collective agents.

Left unrestrained in self-regarding matters, more able agents are more likely to do better for themselves choosing among an unrestricted range of options, whereas less able agents are more likely to opt for a bad option that paternalism would have removed from the choice set.[3, 412]

That the worse off are typically less able choosers is an empirical assumption for which Arneson provides no evidence. I find the assumption plausible and will soon provide some intuitive support for it, but I recognize that my investigation is based on this potentially controversial presupposition.

By a person's ability to choose, Arneson means various "native capacities". More specifically:

Individuals obviously differ markedly from one another in their abilities reasonably to decide whether they will be better off following or flouting commonsense maxims of prudence. The deliberative abilities required for practical judgment involve choice of goals as well as choice of means. Individuals also differ widely in their capacities to make good any of their decision-making defects, when plans go awry, by their perseverance and grit, shrewd and creative improvisation, and so on. Overall we know that if we were to rank individuals according to their self-regarding virtues, their composite scores would range all the way from "wise" to "foolish" and from "competent" to "incompetent". [3, 412]

One commonsense maxim of prudence is to take advantage of incentives when it is rational to do so. <p. 158> This will typically be a choice of means, but the availability of the incentive may also warrant a modification of goals. For example, subsidized health care may make it rational to seek care more often and to adopt a goal of having a large family, a goal that would otherwise have been imprudent.

Arneson takes distributional effects to be an argument for paternalistic policies. By way of counterargument, one may claim with John Stuart Mill that the freedom to make choices will improve individual's ability to choose wisely and so that restriction of choice will be harmful in the long run.[4] However, as Arneson notes, even if this is true it does not remove the inequalitarian effect of free choice, as individuals differ both in their initial ability and in their potential for improvement.[3, 412] This is true also for individuals' ability to learn by observation from other people's choices and lifestyles, a potential collective benefit of free choice emphasized by Mill [3, 415-418] Therefore, the use of incentives to either promote health outcomes or to promote the ability to choose wisely may in effect be a sacrifice of the interests of the worst off for benefits to the better off. This is the *Able Chooser Problem*. This sacrifice may sometimes be worth making, but it should be recognized.

Arneson's description of the ability to choose wisely may sound naive in its focus on innate ability. A person's effective capacity for making wise choices is largely determined by her circumstances. However, this does not change the basic problem: The tendency of free choice to reinforce inequality may play out whatever it is that makes worse off people poorer choosers, whether it is innate abilities or entrenched circumstances. In a helpful overview of the relevant literature, Kristin Voigt describes how people may be less able to benefit from incentive schemes because of their disadvantaged starting positions in relation to health goals, because of their lack of local health-promoting services such as healthy food and exercise facilities, because of their limited access to transportation and childcare, which may be prerequisites for being able to show up at the gym or the doctor's office, because their limited purchasing power and financial flexibility makes it more difficult for them to make use of discounts, and because unhealthy behaviors may be coping mechanisms in the face of deprivation.[5, 270-72] To this list we should add the fact that people who are poor tend to spend much time and effort

managing their everyday finances, in a way that leaves them with less effective ability for other cognitively demanding tasks.<sup>2</sup>[6]

In summary, people vary in their ability to make rational choices, and so to make choices that promote their own interests. High ability to choose tends to be correlated with a generally advantaged position in society for two reasons: 1) disadvantaged people face a series of disabling circumstances, from limited physical opportunities (transportation etc.) to mental strain due to poverty, while advantaged people do not face corresponding disabling circumstances, and 2) good ability to choose will tend to promote personal advantage. This is a general tendency not limited to incentive schemes, which tends to benefit able choosers at the expense of less able choosers (to the extent that goods are rivalry and social positions relative). Therefore, any policy that distributes benefits partly in accordance to the prudence of people's choices will have a tendency to aggravate existing inequality. This is a more general formulation of the Able Chooser Problem. It may be that the tendency can be mitigated or even avoided. Such solutions should be easier to find once the problem is identified and further investigated, which is what this contribution aims to do.

### Effects of Policy on Choice

Arneson's discussion focuses on paternalistic restrictions on liberty. However, the Able Chooser Problem is relevant in all situations where policy affects the conditions under which people more or less rationally make choices that affect their own interests. In order to evaluate various policy alternatives in light of the Able Chooser Problem, we need to consider how they affect individuals specifically in their capacity as choosers.

I will focus in the following on the distinction between, on the one hand, properties of a choice that affect outcomes via influence on the deliberation, judgment and intentional action of the chooser, and, on the other hand, properties of a choice that affect outcomes unmediated by any of these processes. For simplicity, I will call the entire process of deliberation, judgment and action *agency*. We can then call the former category *agency-mediated effects* and the latter *non-agency-mediated effects*. Typical agency-mediated effects are cost changes which make an agent reconsider her purchases. Typical non-agency-mediated effects are both physical compulsion, where agency has no use, and subtle changes in the choice situation which affect choice outcomes unmediated by any conscious effort from the agent. The distinction is important because agency-mediated effects are dependent on appropriate intentional responses from the agent, while non-agency-mediated effects are not, as they influence outcomes via causal paths that do not involve agency. Therefore, only agency-mediated effects are prone to privilege able choosers over poor choosers.

I will soon apply the distinction between agency-mediated effects and not to a number of effects that health policy can have on an individual agent's choice situation. I will then discuss which of these effects that concrete policy options - including incentive schemes - are likely to have. First, however, one delimitation: I will in the following disregard the *epistemic* situation of the chooser - i.e. her subjective perception of the choice she is facing. I will simplify my discussion by assuming that choosers accurately perceive the choices they face. This is not to deny the importance of the subjective perspective, nor the potential of traditional health promotion measures such as information and education campaigns, even if incentive schemes are pursued in part because of the limited effectiveness of these other measures.

In terms of how a policy affects an agent's *choice situation*, as opposed to her ability to choose, there are these possibilities: (1) options are removed from the choice set, (2) options are added to the choice set, (3) options become more costly, (4) options become less costly, (5) options become more salient or appealing in ways not involving costs. I assume here that options are defined in terms of the sought-for outcome, independently of costs. When a pack of cigarettes becomes more expensive due to increased taxation, for example, I take it that the

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<sup>2</sup> We may of course debate to what extent people are responsible for being in the disadvantaged position in which they find themselves. I will leave this issue to one side, and only note that my discussion is based on the presumption that we are not fully responsible for all determinants of our ability to choose wisely.

option is the getting of the pack, and so that the option <p. 159> remains after the tax increase, only associated with a greater cost.<sup>3</sup> Given this assumption, I believe these possibilities are exhaustive.<sup>4</sup>

*Option-removals* (ie, item 1) are non-agency-mediated, since options that are not in the choice set cannot be chosen however an agent deliberates or acts. I take it that for an option to be in the choice set it must be physically available to the agent, rather than for example legal or otherwise sanctioned. Since my focus is on the situation of the individual chooser, what is relevant is physical availability and cost.

*Option-additions* (item 2) are agency-mediated, since the addition of an option will only affect outcomes if the new option is actively sought out, which requires agency. An apparent exception is when an option is substituted for another, and so choosers are automatically directed towards the substituting option. Such cases, however, are a combination of option-removal and option-addition. If the government starts to fluoridate the tap water, the option of drinking non-fluoridated water from the tap is removed, being replaced with the option of drinking fluoridated water from the tap. A pure case of option-addition would be the provision of flour tablets in clinics, available for free pick-up. Such pick-up requires agency.

*Cost-increases* and *cost-decreases* (items 3 and 4) are also agency-mediated, as the increased or decreased cost will affect outcomes only if the agent takes the costs into account in her deliberation. Costs can of course be increased to the point where an option becomes physically unavailable, i.e. there is nothing the chooser can do to access the option at that cost. If this happens, the effect for this chooser is in fact not a cost-increase but an option-removal. Similarly, if costs are decreased so that an option becomes available, the effect is not a cost-decrease but an option-addition.

*Salience effects* (item 5) can arise or be introduced independently of other effects. They also often result from the removal or addition of options, or from the increases and decreases in costs. An added option or an option becoming less expensive will often be salient and compete for attention with pre-existing options and so detract from their salience. It may also increase the salience of some pre-existing options, e.g. because of similarity (a new diet may make similar existing diets more salient) or because of contrast effects (a new diet may stand in explicit opposition to an old diet, which thereby becomes more salient). Similarly, removals and cost-increases typically make some remaining or less expensive options more salient (e.g. banning cigarettes but not e-cigarettes would likely boost the latter), and there can sometimes be less typical effects (banning more popular forms of gambling may decrease the salience of less popular forms that tend to be offered only at casinos centered around the former).

Salience effects are, I propose, typically non-agency-mediated, since we have no direct intentional control over our attention (though we can of course indirectly affect our environment and to some extent choose which environments to face). An option that is more salient will be chosen more often, but not because agents deliberate and judge the option better. Salient options are not prescribed, and non-salient options are not proscribed. Options are equally *available* regardless of their salience, even though they are more or less likely to be picked. Mindlessly picking a salient option may or may not qualify as a choice, but it does not require *agency*, as I have defined this notion.

We can now consider the effects on choice of various policy options, in light of the taxonomy introduced. When we discuss policy options, we normally categorize them according to the means employed, rather than according to their effects. Consider this recent and helpful categorization:

In pursuing their aims and objectives, governments try to affect their citizens' behavior in a number of ways. The principal ones include the provision of *information*, the imposition of *legal restrictions*, the imposition of *taxation* or other forms of *negative financial incentives*,

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<sup>3</sup> An alternative would be to describe such cases as a substitution of a burdened (or boosted) counterpart for the original option.[7, 212]

<sup>4</sup> Options may, of course, also become *less* salient, rather than more, but this is just another way of saying that the remaining options become *more* salient, and so this possibility is covered by 5. A policy may, of course, also fail to have any effect on some choosers.

the provision of *subsidies* or other forms of *positive financial incentives*, and, in an important development, types of government intervention arising from what has been termed libertarian paternalism or nudging, including changes in the context in which people make decisions or the *architecture of choice*. [8, 42]

Arguably, these various means are associated with archetypical aims in terms of effects on choice. The archetypical aim of a legal restriction is to remove the prohibited options, such as 'smoking marijuana' or 'driving without a seatbelt'. Similarly, the archetypical aim of positive incentives is, arguably, to make options less costly, and so more accessible. The archetypical aim of nudging, or design of the choice architecture, is to change choice outcomes without changing either the availability of options or their associated costs. [9] However, these archetypical aims are only rather loosely connected with the actual effects that a policy may be expected to have.

I cannot think of a single legal restriction that is absolutely effective, though some approach this ideal. In many countries, legal restrictions on the ownership and handling of firearms have made it the case that most people have no way of finding a gun even if they should be prepared to face the risk of legal prosecution. Legal restriction on the sale, possession or use of recreational drugs is typically less effective, leaving most people with options to purchase such drugs, though, because of the restrictions, products are more dangerous and more dangerous to purchase, and both purchase and use may be associated with the risk of social stigma and legal prosecution.

Incentives, unlike legal restrictions, typically do advance their archetypical end, i.e. making options more accessible by lowering costs. However, incentives will also often have other effects. Indeed, based on insights from behavioral economics, incentive schemes may nowadays most often be introduced with the main aim of making incentivized options more salient, rather than less expensive. Some studies indicate that subsidizing an activity may work as an effective sanctioning or recommendation of that activity, [10] and other studies indicate that the mere labelling of a money transfer can influence the way that money is used (e.g. the UK winter fuel program that provides £250 annually to people 60 years or older). [11] At the same time, it is well-known that some effects of incentives work counter to their archetypical aim, or otherwise create problems for incentive schemes. Gneezy et al. survey a series of such problems, including the crowding out of intrinsic motivation for the incentivized options, decreased motivation due to a shift from perceiving a situation as social to perceiving it is monetary, and inducement of a belief that the incentivized behavior is uncommon or not in line with social norms (since people apparently must be paid to comply). [12] <p. 160>

Regarding nudges, or choice architecture design, its archetypical aim is negatively defined as the absence of availability or incentive effects. Some nudges achieve this aim while many others do not. While proponents of nudging generally recognize that it may often affect costs, they typically assume that costs can be kept small and so not have any substantial effects on incentives. It is supposed to be a strong argument in favor of nudges that they are easily avoidable. [9, 13-14 & 249-254] It has even been explicitly argued that nudging should be defined in terms of its limited impact on the target's choice situation. [13] In my taxonomy, however, this is to confuse the means of influence with the resulting effects on choice. Setting or changing the default, a paradigmatic example of nudging, may very well have substantial effects on costs, a divergence from the archetypical aim (e.g. changing the default may make the previous default option rare and this may make it expensive simply because of economics of scale). [14] We can certainly postulate that something is a nudge only if it has only salience effects, just as we can postulate that something is a legal restriction only if it has only option-removal effects. If we do this, however, the resulting taxonomy will leave out important policy alternatives. We would need new words to describe policy options that do not have only archetypical effects.

We have seen that that policy options often have effects on choice other than those associated with their archetypical aims. For example, incentives are archetypically cost-modifications but have salience effects and may sometimes be employed for this very reason, while choice architecture design is archetypically a salience-modification but often has

substantial cost effects. No wonder these two policy options are sometimes lumped together.[15] In order to understand and address the Able Chooser Problem, we must note how policies differ in their actual effects on choice situations. Option-removals and salience effects are non-agency-mediated, while option-additions, cost-increases and cost-decreases are agency-mediated. Legal restrictions, incentives and nudges can in fact have all of these different effects on some choosers, depending on the details and on chooser circumstances.

### **Concluding remarks**

As I stated in the first paragraph, the Able Chooser Problem is only one factor to influence the overall equity effects of incentive schemes (and other policies). Incentive schemes that aim to reduce inequity may carefully define target groups and the nature and size of incentives so as to maximize the benefit to the worst off. Such steps are essential. However, even after such steps have been taken, an incentive scheme will almost always target a group where some individuals receive a benefit and others do not, and where this difference depends in part on how able these individuals are to make choices that promote their own rational interests, given their circumstances. In any such situation, the Able Chooser Problem is likely to be relevant. More generally, this problem is relevant whenever the health of some population is furthered by changing the cost of options or introducing new options with the hope that they will be chosen.

The most important take-away is, I believe, that incentives, in their archetypal and perhaps traditional function as adjusting the cost of options, have agency-mediated effects. They therefore belong with information and the provision of new alternatives on the problematic side of the Able Chooser Problem, where benefits are likely to be awarded according to ability, rather than for example need. On the other, non-problematic side of this problem are health policies that effectively change either what options are physically available or what options are salient and appealing. These effects do not depend on agency and so not on ability. Policies that affect physical availability include traditional public health measures such as reduced pollution and improved sanitation, but also effective regulation of the size of sodas and the phasing out of trans-fats in foodstuff. Policies that affect salience include many smart adjustments of choice environments recently proposed by behavioral scientists and their allies. Examples include prebooked follow-up appointments and placing healthy alternatives at eye level and within easy reach. [find more fun examples?]

Before I conclude I should recognize that my taxonomy is best suited for interpreting marginal adjustments relative to some status quo. If we consider larger changes which take the form of the introduction of some new environment, whether physical (such as a building, perhaps for a clinic) or administrative (such as regulation of a new medical technology), option-removals and option-additions cannot be fruitfully distinguished, since the question is rather what package of options should be offered, where there previously were none, or where this new package as a whole replaces some old package. In fact, if we adopt an unrestricted design perspective, the available options, their associated costs, and their salience-determining context are all features of the same design problem. The Able Chooser Problem is still relevant for such unrestricted design, and thinking in terms of the individual chooser's situation should be useful, though my particular distinctions between types of effects partly dissolves.

Marteau and colleagues recently put together a good overview of measures with a wide design perspective on both the content and the context of health-affecting choice.[16] They emphasize the shared property of these designs, in contrast to the provision of information, of not requiring cumbersome agency. The authors argue for wider use of such measures, mainly for reasons of effectiveness relative to overall health goals, but partly also for equity reasons, and briefly invoking the Able Chooser Problem: "The impact of interventions that involve providing persuasive information depends on recipients' literacy, numeracy, and cognitive control, which are generally poorer in those who are more deprived." [16] My more expansive treatment of this problem in this article may be taken as a complementary argument for the same kind of health-promoting measures.

## References

- 1 Ranganathan M, Lagarde M. Promoting Healthy Behaviours and Improving Health Outcomes in Low and Middle Income Countries: A Review of the Impact of Conditional Cash Transfer Programmes. *Prev Med* 2012;55: S95–S105.
- 2 Giles EL, Robalino S, McColl E, Sniehotta FF, Adams J. The Effectiveness of Financial Incentives for Health Behaviour Change: Systematic Review and Meta-Analysis. *PLoS ONE* 2014;9(3):1–16.
- 3 Arneson R. Paternalism, Utility, and Fairness. *Rev Int Philos* 1989;170:409–23.
- 4 Mill JS. *On Liberty*. 1859.
- 5 Voigt K. Incentives, Health Promotion and Equality. *Health Econ Policy Law* 2012;7(3): 263–83.
- 6 Mani A, Mullainathan S, Shafir E, Zhao J. Poverty Impedes Cognitive Function. *Science* 2013;341(6149):976–80.
- 7 Pettit P. Freedom and Probability: A Comment on Goodin and Jackson. *Philos Public Aff* 2008;36(2):206–20.
- 8 Le Grand J, New B. Government Paternalism: Nanny State or Helpful Friend? Princeton: Princeton University Press 2015. <p. 161>
- 9 Thaler R, Sunstein C. *Nudge: Improving Decisions About Health, Wealth and Happiness*. 2d edition. New York: Penguin Books 2009(2008).
- 10 Benhassine N, Devoto F, Duflo E, Dupas P, Pouliquen V. Turning a Shove into a Nudge? A ‘Labeled Cash Transfer’ for Education. *Am Econ J Econ Policy* 2015;7(3): 86–125.
- 11 Beatty TKM, Blow L, Crossley TF, O’Dea C. Cash by Any Other Name? Evidence on Labeling from the UK Winter Fuel Payment. *J Public Econ* 2014;118:86–96.
- 12 Gneezy U, Meier S, Rey-Biel P. When and Why Incentives (Don’t) Work to Modify Behavior. *J Econ Perspect* 2011;25(4):191–209.
- 13 Saghai Y. Salvaging the Concept of Nudge.” *J Med Ethics* 2013;39(8): 487–93.
- 14 Grill K. Expanding the Nudge: Designing Choice Contexts and Choice Contents. *Rationality, Markets and Morals* 2014;5:139–62.
- 15 Ashcroft RE. Personal Financial Incentives in Health Promotion: Where Do They Fit in an Ethic of Autonomy? *Health Expect* 2011;14(2):191–200.
- 16 Marteau TM, Hollands GJ, Fletcher PC. Changing Human Behavior to Prevent Disease: The Importance of Targeting Automatic Processes. *Science* 2012; 337(6101):1492–95.