People who have the necessary capacity to act do better at school and at work, have better health and fewer debts and are better able to deal with the temptations of the market and the responsibilities of the participation society. However, we have also seen that not everyone always has this capacity or to the same extent. So what could be more logical than trying to strengthen the capacity to act through education or training?

This chapter discusses whether training can provide a solution in this case. We are focusing on three questions:

- How far is it possible to improve someone’s self-control, executive functions or self-regulation by means of practice or intervention?
- How far is it possible to learn certain domain-specific skills, such as how to deal with money sensibly?
- To what extent is the government normatively permitted to offer or even impose such training?

5.1 Better Self-control

In this section, we will also be focusing on one non-cognitive characteristic, namely the capacity for self-control. Why are we not focusing on temperaments and beliefs? First, self-control correlates closely with desired societal outcomes. Second, self-control is in theory the most ‘efficient’ reference point for intervention and training. Attempts to change someone’s temperament would probably have little effect as their temperament is almost fully formed after the age of three¹. At most, people can be taught to deal with their temperament better and that requires, by definition, self-control.
Attempts to change someone’s beliefs could actually have an effect. The problem in this case, however, is that there would be little ‘transference’, i.e. the effect would probably be confined just to the subject of the training. If someone is convinced that they are bad at dealing with money, a course entitled ‘dealing with money’ could lead them to have more positive thoughts. But these more positive thoughts would probably be confined to the financial domain. An improved belief in their own financial abilities will not make much difference, if any, to their beliefs in the area of health. And it is once again the case that training courses in this area must go down the route of self-regulation.

In short, there is a lot to be said for improving self-control. If gains can be achieved in this aspect, that will be helpful for a large number of problems and life challenges—including challenges that, as yet, are unforeseen.

We discuss below two lines of research, namely research into:

- training in self-control. Baumeister et al. use the metaphor of a muscle. The question is whether it is possible to make the ‘self-control muscle’ stronger through intervention and exercise.
- teaching mental techniques that contribute to positive goals. If you’re not strong, you’d better be smart. If turns out to be possible to teach people tips and tricks to find better ways of achieving their goals despite their weak ‘self-control muscle’, their self-control will also have improved. Interventions could then be organised accordingly.

5.1.1 Self-control Training

Dozens of studies on the question of whether people can be trained in self-control have been published in recent years. This research is often designed as follows. A baseline measurement is first carried out in the form of a self-control task, followed by a period of a few weeks during which the subjects practise a specific skill that requires self-control and finally a final measurement is taken to ascertain how people performed in the self-control task.

One of the better studies in this area is that by Muraven among people who wanted to quit smoking. Before the subjects were actually going to quit, they did daily exercises which they were told would improve their self-control. In the two experimental groups, these were exercises in which either people actually had to control impulses, i.e. they were not to eat sweets for two weeks or they had to keep pressing a handle for as long as possible twice a day for two weeks. In the two control groups, the exercises did not involve impulse control, i.e. they had either to keep a diary for two weeks on how they were dealing with the temptations of the moment or do sums twice a day. Once the training period was over, the actual attempt to quit began. A record of the subjects’ progress was kept for four weeks. It was found that members of the experimental group maintained their attempt to quit for significantly longer than the members of the control groups. Also, a significantly smaller number of them had started smoking again by the end of the four weeks.
However, research into training courses for self-control does not always show any effect. The results are very variable. At the time of writing, four small-scale meta-analyses of the results of this type of training have been published. The results are as follows:

- The first analysis was part of a large-scale meta-analysis of ego depletion by Hagger et al. They analysed seven studies looking into the effects of training and found a substantial result, namely $d = 1.07$.
- The second meta-analyse was by Inzlicht and Berkman. They analysed a total of thirteen studies, including the Hagger et al. study, but corrected the latter for publication bias. They then found an effect of $d = 0.60$, which is still an impressive result. However, it was found on closer inspection that this substantial result was due to three studies by Oaten and Cheng which showed extreme effects and about which Inzlicht and Berkman had serious doubts. If these studies are omitted from the analysis, the correlation found drops to a significantly more modest $d = 0.17$ and no longer differ significantly from zero.
- The third meta-analysis is by Beames et al. and covers thirty published and unpublished studies (excluding the Oaten and Cheng study). They found an effect of $g = 0.36$. When possible publication bias is taken into account, the result is a little lower, but it is still a significant effect.
- The fourth meta-analysis is by Friese et al. They analysed a total of 34—somewhat different—studies (again excluding the Oaten and Cheng study) and have found an average effect of $g = 0.28$. Their result was also a little lower when corrected for publication bias.

All in all, therefore, there does appear to be a modest training effect. Caution is recommended with regard to this conclusion, however. There are only a few studies that ascertained whether the results were also longer-lasting. The results of these studies lead one to suspect that the participants did gradually fall back to their old level of self-control. A substantial number of studies even found no effect at all. Moreover, according to several of the above researchers, it is still unclear what the exact psychological mechanism is that is responsible for the improved results. It has not even been ruled out that they are merely due to the placebo effect.

**Box 5.1 Training Involving Children**

There are two other lines of research that touch on the subject of this chapter but are different because they mainly focus on children.

*Executive function training*

The first line is firmly rooted in educational psychology and concerns executive function training. A lot of research has been done into the effects of providing training in executive functions, often in (young) children. This shows that it is indeed possible to provide training in certain executive functions. In a review of this research, Diamond and Lee concluded that:
[d]iverse activities have been shown to improve children’s executive functions: computerized training, noncomputerized games, aerobics, martial arts, yoga, mindfulness, and school curricula. All successful programs involve repeated practice and progressively increase the challenge to executive functions. Children with worse executive functions benefit most from these activities; thus, early executive-function training may avert widening achievement gaps later.

Yet there are some caveats. To achieve these results a lot of practice is required (“Repeated practice is the key” according to Diamond\(^\text{10}\)). Moreover, the transference of the learning effects is limited. Children do therefore improve in the task they practised and also in very similar tasks, but there is no effect on completely different tasks that also involve the underlying executive function. Meta-analyses of research into working memory training also provide little reason for optimism\(^\text{11, 12}\).

**Preschool and Early Childhood Education (VVE)**

Another line of research concerns Preschool and Early Childhood Education interventions. This literature does not focus explicitly or exclusively on self-control, executive functions or self-regulation but more generally on the (supposed) importance of non-cognitive characteristics and capacities for life outcomes and on whether these characteristics and capacities can be addressed by means of VVE programmes. The central figure in this area is the economist, James Heckman. His message is arousing growing interest from economists and policymakers, judging by an OECD report dating from 2014.\(^\text{13}\) This message is that an investment in VVE programmes that partly focus on developing non-cognitive skills will pay for itself through improved outcomes for individuals and society.

The showpiece in this literature is the long-running ‘Perry Preschool programme’. This programme focuses on black children aged 3 and 4 with an IQ below 85 from families with a low socio-economic status (SES). In this two-year programme, the children are trained in subjects including self-regulation skills such as planning and self-control, and in social skills. Two and a half hours are spent on the programme every school day. The children’s mothers are also visited for one and a half hours every week with the aim of involving them in their child’s development. Various evaluation studies have now been looking at how the Perry children progressed afterwards, up to their 40th birthday. These show that the programme does not result in a lasting improvement in IQ but does produce other desirable societal outcomes, in particular a reduction in crime.\(^\text{14}\) Heckman, Pinto and Savelyev\(^\text{15}\) show that these societal outcomes can be predicted on the basis of the effect the programme had on externalizing behaviour of these children from ages 7 to 9.\(^\text{16}\) To put it another way, children who exhibited less disruptive behaviour as a result of this programme when aged 7 to 9 also had better societal outcomes in adult life. As Heckman et al\(^\text{14}\) concluded: “Persistent changes in personality skills play a substantial role in producing the success of the Perry programme.” “[A] few hours per day of
preschool at ages three and four with a curriculum that promotes social competency, planning, and organization can significantly and beneficially affect life outcomes”.

The above-mentioned OECD report also discussed other programmes and found that programmes that focus on young children have the best chance of success. Unfortunately, the results of programmes aimed at adolescents are not so good and fewer subsequent long-term evaluations were carried out in these cases. “The two programmes with the longest follow-ups improve outcomes in the short run, but the benefits fade after a few years. These programmes alter participants’ environments and incentives during the intervention, which could influence their behaviour in the short term without having a lasting effect”.

5.1.2 Using Mental Techniques to Circumvent Self-control

It does not therefore appear to be easy to improve self-control through training. But there may be an alternative. One could also try to teach people those habits that they need to achieve their goals but do not require them to use their self-control. People who get into the habit of always choosing fruit instead of sweet things in the canteen or noting down each item of expenditure in a cash book after a visit to the shop will eventually do so automatically and will no longer need to exert themselves mentally. In fact, in recent years, it is becoming more widely understood that people who appear to be good at self-control do not necessarily have a stronger ‘will power muscle’ than anyone else, but are better able to teach themselves habits that take them closer to their goals. For this reason, they do not have to use this muscle so much, which therefore becomes less tired and can be used for other things. Ergo: training programmes aimed at improving self-control could also focus on changing habits.

This type of training programme has now been the subject of a good deal of research. A first technique that can help to change behaviour is ‘mental contrasting’. It involves someone first imagining a future situation or the goal they wish to achieve and then obstacles in the present that are impeding them and that they therefore have to overcome. This mental exercise increases the motivation and energy for a change of behaviour, links the desired future to conditions in the present real-life situation and emphasises the need for action. Research has shown that mental contrasting does in fact encourage people to change their behaviour in the desired direction.

A second technique that can help to change behaviour is the creation of ‘implementation intentions’. This involves people formulating small action plans for themselves along the lines of ‘whenever situation x arises, I will initiate response y’. Anyone who wants to lead a healthier life can, for example, agree with themselves that ‘if it’s not raining on a working day, I’ll cycle to work’ or ‘when I’m at that reception tomorrow, I’ll have a glass of water after every alcoholic drink’. By deliberately impressing such rules on themselves, people are creating a mental connection between a specific situation and a specific response. If the situation then does actually arise, they will no longer have to actively think about what to do but
choose the planned response, more or less automatically. They create what could be called ‘instant habits’. Many studies have now been conducted which show that if someone believes a goal to be really important, formulating specific implementation intentions actually helps to change behaviour so as to achieve that goal.\textsuperscript{24}

**The combination**
Mental contrasting and forming implementation intentions are in a certain sense complementary techniques. “Mental contrasting can create strong goal commitment, whereas implementation intentions facilitate the implementation of strong goal commitments”, wrote Stadler et al.\textsuperscript{25} Combining the two therefore has a greater effect on behaviour than each one separately.\textsuperscript{26, 27} In the study by Stadler et al.\textsuperscript{25}, an intervention aimed at getting people to eat more fruit and vegetables, in which the two techniques had been combined, was still having a visible effect even after two years.

It is particularly relevant for this book that these favourable effects are not necessarily confined to the specific goal that was the subject of the mental exercise. This means we would have a cross-domain, generally applicable technique that can help people to achieve their goals more effectively despite the limits on their self-control and will power. Oettingen et al.\textsuperscript{22} describe some experiments in which participants had first been trained to use both techniques for goal attainment in a handful of areas of life, such as improving academic performance and improving interpersonal relationships. They then measured the extent to which the subjects did actually improve their performance in an area not covered in the training, namely time management. They did indeed find a significant effect. Apparently, the participants had used their newly acquired techniques for changing behaviour more widely on their own initiative. Reviewing the study, Oettingen et al. concluded that mental contrasting, whether or not combined with forming implementation intentions, “can be effectively taught as metacognitive strategy that people can use on their own to successfully change their behaviour”.\textsuperscript{22}

Before we start celebrating, we should however mention two caveats. First, little research has been done as yet into whether such training programmes really have a cross-domain effect. Research into mental contrasting and implementation intentions usually relates to specific domains, such as a healthier lifestyle or improving academic performance. The above study by Oettingen et al.\textsuperscript{22} is an exception in this regard. Second, using mental contrasting or implementation intentions to change behaviour does, by definition, require a deliberate mental effort. After all, new habits don’t come by themselves. They only come about when the new behaviour is repeated so often that it becomes automatic and it can take weeks or even months before that actually happens.\textsuperscript{28, 29} Until that time, a great deal of will power is required to inhibit undesirable habits and trigger desirable behaviour options.\textsuperscript{30} This means that, all things being equal, people who start out with a greater capacity for self-control will succeed in building on a change in behaviour, once in place, to create a new habit sooner than people who have less capacity in this regard.
5.1 Better Self-control

5.1.3 No Unrealistic Expectations

What does the above teach us about the task of taking everyone to an acceptable level of self-reliance? That we should not have unrealistic expectations with regard to the possibility of strengthening the capacity for self-control at a stroke. The research into self-control training only produces modest results and it is questionable whether these results will last long.

A possible alternative is to employ cognitive strategies (in this case implementation intentions and mental contrasting) to circumvent limits in self-control. These techniques have been found to be quite effective. However, research in this area to date mainly relates to specific behaviours and domains, e.g. a healthy lifestyle. Hardly any research has yet been conducted into whether it helps to offer these techniques as cross-domain ‘meta-cognitive strategies’ which are used to improve the way goals are achieved across a series of life domains. It would certainly be worthwhile to conduct more research in this area.

But, here too, we have to guard against unrealistic expectations. After all, both cognitive techniques, by definition, require mental effort. The essence of both techniques involves holding an interior monologue. People activate their ‘inner helper’ in order to motivate their ‘automatic self’ to change behaviour and will have to keep disciplining themselves until such time as the new behaviour is automatic. This again requires them to use their capacity for self-control, however.

5.2 Training in Domain-Specific Skills

What about providing training in the specific skills needed for the various domains? Examples of these types of interventions include courses on improving the way people deal with low incomes, courses on healthier living and training programmes on effective job applications. The necessary evaluation study is now available.

One major difference between the above and the training programmes in the previous section is that they focus specifically on what you have to be able to do in the domain in question. For example, it is essential for people who want to be able to handle money properly to be able to prepare a monthly budget. However, this skill does not help much in other life domains. Although it is not impossible for people to become better at general capabilities that are also useful elsewhere, such as working in a planned way, as they go along, this is not the main point. However, from the perspective of general self-reliance, these potential additional findings are also interesting.

Below, we will briefly discuss what is known about the results of interventions and training programmes in various subdomains and present some examples of potentially promising initiatives.
5.2.1 Training in Health Skills

What are the options for strengthening people’s health skills? Research in this area is becoming popular. In the United States, various meta-studies have been conducted that bring together knowledge of interventions and evaluations of interventions. In Europe, a systematic analysis of existing knowledge of interventions focusing on health skills was carried out in EU member states in 2015.31

These studies do not allow us to draw any firm conclusions on the effectiveness of policy programmes aimed at increasing health skills.32 The number of interventions and evaluation studies is too limited, especially in Europe. Moreover, the studies differ in terms of quality and demarcation. Although the meta-studies used a broad definition of health skills, the majority of the interventions were solely focused on cognitive skills, on the processing of information by patients and problems with reading, writing and arithmetic. There are still relatively few interventions focusing on motivation, self-control or self-efficacy. The meta-studies generally provide little evidence of the effectiveness of interventions.33 But, according to the authors, they do provide cautious motivation for further extending knowledge of health skills and organising and evaluating new interventions. For example, the European study concluded that the most promising interventions do not focus on knowledge alone, but also on other skills.31

Lifestyle change

Another line of research focuses on the prevention of unhealthy behaviour. Although knowledge of effective intervention has increased, almost everyone concludes that the effect of a lot of short-term behavioural interventions aimed at the general population has not yet been properly studied.34, 35, 36 Even less is known about the duration of the effects. Moreover, the available research does not provide a clear picture of effectiveness. Some authors report positive results, sometimes cautiously34, 36, 37 other, actually disappointing results.38, 39

What do we actually know? First and foremost, that providing information is not enough to achieve lifestyle change. This has been established in many studies in recent years. Campaigns in the mass media promoting a healthier lifestyle do usually have some effect on knowledge and attitude, but not on behaviour.35, 36 An integrated and sustained approach would seem to be the best way of reducing the prevalence of risk factors (ibid.). This approach involves not only the individual in question, but also their social and physical environment. It consists of interventions that influence the environment within which the individual makes a choice, such as tightening up the smoking ban, a fat tax or encouraging physical exercise by introducing a cycle-to-work scheme.

Pricing measures and legislation are found to be the most effective way of influencing behaviour.35, 36 Increasing mental capacities is not therefore the only route towards a healthy lifestyle. It is easier for individuals to adapt their environment in order to maintain a healthy lifestyle as there are fewer demands on their mental capacities. We will return to this topic in the next chapter.
5.2 Training in Domain-Specific Skills

Self-management by patients
We are also seeing an increase in research into training programmes that enable patients to cope better with their illness and manage their own treatment. They are usually linked to a specific condition and involve a combination of transferring knowledge of the illness and focusing on the way patients cope with the illness. The Utrecht Medical Centre (UMCU) provides training courses for young people and adults with rheumatism in conjunction with Reumafonds (the patient organisation for people with rheumatism in the Netherlands) (see Box 5.2). The applications and training programmes have been developed as part of a consultation process, so that they match the needs and preferences of the patients. The project is the subject of scientific research. Initial publications show positive results for user accessibility and satisfaction, but no data are available as yet on the effects of the training in the long term.40, 41, 42

Box 5.2 Rheumatism Challenged
Rheumatism Challenged [Reuma Uitgedaagd] is a self-management training programme for people with rheumatism developed by the UMCU and Reumafonds because the existing information did not adequately meet the needs of patients.43 The training is provided both online and in the form of meetings. The online version of the training uses chat sessions, discussion boards and individual exercises and makes it possible to base the interventions on individual needs and preferences. The trainers themselves have rheumatism and have been trained to provide this training. “So they are well aware of what it means to try to live with rheumatism in their everyday lives”.44

The training is partly concerned with teaching knowledge about the illness but also devotes attention to the non-cognitive aspects such as communicating with friends and carers, setting boundaries, managing emotions and pain and making choices that will impact on subsequent health, such as whether to play sports or have a night out. The priority is not to transfer factual knowledge but to train patients in self-management. For example, young people are helped to develop skills to deal with the issues that preoccupy them, such as: ‘I find it hard to explain to family and friends what I can and can’t do. How do I go about this?’

5.2.2 Training Focusing on Healthy Financial Behaviour

In the Netherlands municipalities, voluntary organisations and other organisations offer all kinds of courses for people who are unable to deal with money properly. Some of them focus on prevention and others on increasing the skills of people who already have or are likely to have financial problems. A variety of tools are used, depending on the aims and target group of the interventions. The main tools are budget coaching, budgeting courses, information and education modules. But how effective is financial training?
Jungmann and Madern\textsuperscript{45} were commissioned by the WRR to conduct desk research to ascertain what is known about this.\textsuperscript{46} Their short answer is that we don’t actually know. Some years ago, two meta-analyses were published. The first was by Hoffman et al. Fernandes et al.\textsuperscript{47} and covered a total of 201 studies, of which 90 concerned educational interventions aimed at changing people’s financial behaviour. The results were very disappointing. In total, these interventions accounted for only 0.1\% of the variation in financial behaviour. The second meta-analysis was by Miller et al\textsuperscript{48} and covered 188 studies, some of them the same as in Fernandes et al. They made a greater distinction between different types of effects and, on this basis, came to a somewhat less gloomy conclusion. Educational interventions may have some positive effect in some areas (saving, keeping track of finances), but not in others (credit default).

These results were nothing to write home about. So should our conclusion be that financial courses or training programmes are pointless? No, that would be premature. Jungman and Madern\textsuperscript{45} give two reasons for this. First, these interventions focus on knowledge transfer. They are based on the assumption that people will make better decisions if they are better informed. However, financial behaviour involves more than just cognitive factors. Financial behaviour also correlates with the non-cognitive factors that are the key issue in this book and nothing was done about them in the interventions studied. Looked at in this way, the lack of result is therefore hardly surprising. Second, the strong aggregation that is unique to meta-analysis to some extent conceals the fact that some effect was definitely measured in certain types of intervention. Jungman and Madern call for the active mechanisms in these successful studies to be examined in more detail and further developed.

The insight that an increase in financial literacy does not automatically mean that people will start to exhibit better financial behaviour is reflected in the design of some interventions in the Netherlands. Jungmann and Madern\textsuperscript{45} found that whereas for a long time the emphasis was on the transfer of technical knowledge in budgeting courses, ever greater attention is being focused on the behavioural aspect of debt in recent years. Courses focus on questions such as: ‘How do I deal with temptation?’ or ‘What makes me break my own good intentions time and again?’ Participants in a training programme organised by the Amsterdam food bank and the Nibud budgeting course reported effects such as a willingness to open letters, growth of confidence in their own abilities, knowing what to do if they don’t know something and being more confident in dealing with money.\textsuperscript{45} However, there is no sound research into the effects at the present time.

5.2.3 Labour Market Skills Training

Within the labour market domain, employees, employers and the government all focus on training and attention is increasingly being devoted to the non-cognitive skills. Yet research into the options for providing labour market skills training is still limited. Moreover, the available research focuses more on the effectiveness of reintegration policy and much less on employability.
Owing to a number of methodological limitations, this research provides only a modest amount of information. For example, a lot of research is short-term, which means it is not clear whether the training also has long-term effects. Furthermore, many studies only use a small sample, e.g. of thirty people per group, as a result of which the group may be too small to find significant results. In addition, labour market skills are regarded as a means and not an end, which means that it is not always ascertained during interventions whether skills have been increased but only whether the individual has a chance of getting a job. Bearing in mind these limitations, we are discussing here research into training in employability and other labour market skills.

From unemployment to work
Most research into the effectiveness of training focuses on the help given to people who are unemployed. Unemployed people are motivated and helped to find work with the aid of different schemes under the banner of ‘active labour market policy’. In this case, we focus solely on the interventions that also try to improve non-cognitive capacities, such as supervision by client managers and the related training in applying for jobs.

Box 5.3 JOBS Training
An example of this kind of intervention is Job Opportunity and Basic Skills training (JOBS). This focuses both on improving participants’ job-seeking skills and confidence and on preparing them for any rejection and setbacks they may encounter. Over a few half-day sessions, the unemployed participants showcase their own competencies in a series of increasingly difficult tasks and use them to match themselves to the labour market. Compared with the control group, participants are more likely to find a job and less likely to suffer from depression or psychological conditions and will still be participating in the labour market two years later.

The JOBS training scheme combines training in practical skills with aspects relating to motivation. A meta-analysis of 47 (quasi-) experimental studies shows that training schemes that combine these two components are the most effective. If the training focuses attention on motivation and mental skills, such as proactivity, as well as the practical aspects of job-seeking, the likelihood of participants finding a job increases by up to 2.7 times.

Based on the JOBS training scheme, Akkermans et al designed a training course in career competencies. They used it both on students and on a group that was in the process of reintegrating into the labour market. The training focused on six different career competencies. Just as in the case of adaptability, reflective and control-related aspects can also be found in this instance. The training consisted of four half-day sessions, covering six competencies: reflecting on motivation, reflecting on qualities,
networking, self-presentation, work exploration and career control. In this study, all six competencies were found to improve after training.

It is the case for both employability and reintegration that the effectiveness of the training depends on it matching the individual’s capacities and situation. Training is less useful and less necessary for a ‘likely’ individual than for someone who is far removed from the labour market. Screening participants could therefore contribute to cost-effectiveness and effectiveness in general.

Studies looking at whether people can be trained in labour market skills painted a moderately positive picture. Although the underlying characteristics cannot always be changed, people can learn new ways of dealing with problems. Our interviewees stated that people were successful more often if they were familiar with several strategies of this kind. Because they can see different routes to achieving success, their job-seeking motivation remains higher and they are better able to cope with setbacks. Because a large number of studies focused solely on unemployed people, it is not certain whether all the training courses would also be useful for people in employment. But the CareerSKILLS training scheme shows that it is in principle possible for training to improve the competencies of both unemployed and non-unemployed people.

**From job to job**

Although the greater part of the research concentrates on training unemployed people, there are also a few studies available focusing on capacities that are relevant to general employability. For example, Koen et al\(^{56}\) studied the way different employability factors can improve the chance of finding a suitable job. The factor of adaptability helps people to adapt effectively to changing circumstances. In a study, 46 students were given one day’s training focused on the four aspects of adaptability: preparation, curiosity (exploring career options), confidence (in one’s ability to cope with difficult career situations) and control (taking responsibility for one’s career).\(^{57, 58}\) These students were found to experience more control, curiosity and concern than the students in the control group, both immediately after the training and six months later. When they had found a job, they were found to perceive it to be more suitable.

The above-mentioned CareerSKILLS training by Akkermans et al\(^{55}\) has also been tested on students. Although the effects in the long term or on job prospects are not known, the students also did better in all six competencies at the end of the training.

Both studies are an indication that people can be trained in mental capacities important for employability, even though the long-term effects are as yet uncertain.

**5.2.4 More Than just Knowledge Transfer**

All three domains show an increasing focus on non-cognitive capacities, such as motivation and belief in one’s own abilities. The situation for the domains of health and finance is that people have long had a strong tendency to latch on to cognition and knowledge transfer, and the meta-analyses published in these areas mainly concern interventions in which the focus is on providing knowledge. The results they produce
are not very encouraging. Insofar as it is possible to draw conclusions based on the available research, the results are disappointing.

Within the domains, therefore, an increasing amount of work is being done with training that does not focus exclusively on cognitive, but also on non-cognitive capacities. The most promising interventions focus on skills that require a combination of the two. In addition, they are consistent with individuals’ options and their specific situation. The previous chapters have already made it clear that there are theoretically good reasons for expecting a better result. This does not detract from the fact that there is still much research to be done before this training can be widely offered or imposed.

In addition, more research is also required to ascertain whether the strengthened capacities are transferable to other domains. This will obviously vary according to the different capacities. The capacity to make a plan is probably less context-bound than belief in one’s own abilities.

5.3 Is Training in Non-cognitive Capacities Desirable?

We have seen in the previous section that programmes are being developed in all domains to increase specific skills. But is it actually desirable for the government to interfere with its citizens’ non-cognitive characteristics and capacities? Should the government actually be allowed to try to increase these capacities? We discuss a number of potential objections below.

These objections mainly concern citizens’ generic mental capacities and not so much their training in domain-specific skills. After all, there is not so much difference between learning cognitive skills, such as reading and arithmetic, and learning planning or budgeting skills. Moreover, these objections mainly apply to compulsory interventions, e.g. compulsory training as part of a reintegration or debt-restructuring process. When people want to tinker with their non-cognitive characteristics or capacities voluntarily—e.g. as in the case of psychotherapy—these objections do not apply.

Paternalism and infantilisation?

The first objection concerns the accusation of paternalism. Why should the government concern itself with whether people have certain mental capacities in general and a good self-regulation capacity in particular? Provided that citizens don’t harm other people, surely it’s their own business what they do or don’t do? This is the Harm Principle, the classic argument against government interference that goes back to John Stuart Mill. It is based on the contention that the government is only justified in limiting the freedom of individuals if they do harm to others, not if they harm themselves.

Does this objection hold water? We have to put a couple of points into perspective. First, the objection of paternalism can be raised against almost any government intervention that tries to protect citizens from themselves. It likewise applies to
compulsory education, the ban on drugs, policy aimed at discouraging smoking and drinking and a series of measures that try to make driving safe, such as compulsory airbags and seat belts in cars. In all these cases, the government is discouraging behaviour in citizens that is harmful to them in the long term or is even requiring citizens to take protective measures. The reasons for this arise from the limitations we discussed in the preceding chapters. Not everyone is always capable of resisting the temptations of alcohol, tobacco or speeding. Or capable, especially at a young age, of looking after their long-term interest in having a good education themselves. On this point, there is in principle no difference between increasing mental capacities and other measures intended to keep people from harm.

Second, it is not so easy to make a clear distinction between behaviour that only harms the person concerned and behaviour that also harms others. Things are not as simple as Mill suggested. Compulsory education, compulsory health insurance and the ban on speeding are intended not only to protect the person concerned, but also—sometimes primarily—to safeguard the interests of others. People who decline to educate or insure themselves may initially harm only themselves but may eventually harm society as well. After all, it is society that will sooner or later be picking up the bill for this irresponsible behaviour, for example in the form of social security payments or healthcare costs. That is actually one of the arguments for focusing on self-reliance. A lack of self-reliance ultimately costs everyone money. In the final analysis, there are only very few behaviours that cannot harm others, either directly or indirectly.

A related objection is that of infantilisation. A government that believes that its citizens have to be trained in self-regulation capacity obviously regards them as children who are practically incapable of taking care of themselves. And is teaching citizens self-regulation capacity actually effective? Do these lessons not make a much longer lasting impression if you learn them the hard way in the real world? The same applies to this objection as to compulsory education—you learn a lot of skills more easily under gentle coercion that you would only learn with difficulty or not at all by yourself. It is often those with weak self-control who benefit from the ‘big stick’ approach. Moreover, there is the risk that practical lessons learned at the university of life will come too late. A man who finds out on his 55th birthday that he has failed to build up a good pension will no doubt experience that as ‘learning the hard way’, which will motivate him to plan his financial future more sensibly from now on. Only, what has he actually gained from this life lesson. He will almost certainly be unable to save enough to achieve the desired pension at this stage. That is indeed a very hard lesson to learn.

Both of these objections call for proportionality between limiting and strengthening autonomy. Policies aimed at increasing citizens’ mental capacities must have as little effect as possible on their autonomy and, on balance, increase their self-reliance. The government can certainly encourage organisations to offer these programmes but it would be paradoxical if it made them compulsory. It is impossible to compel
people to be autonomous. Any government that tried to do so would be suspected of imposing a sort of ‘second-order paternalism’.

*Respect for mental integrity*

A second set of objections comes under the heading of *psycho-engineering*. Does a focus on mental self-reliance lead to a new version of the ‘greedy’ government that moulds, models and disciplines its citizens? Does this mean that the government not only comes into your home, but also gets into your brain? Will healthcare providers also interfere with our thoughts? These are important questions. Just as the government should respect physical integrity, so it should also respect mental integrity.

A reasonable guideline is therefore that the government should exercise greater restraint the closer it gets to the core of citizens’ personal identity and the greater the risk of infringing their authenticity. Some mental characteristics, such as temperament and capacity for self-control, are deeply rooted in an individual’s personality. They constitute, almost entirely, what a person is. Attempts to exert influence are a very serious intervention into individual identity and autonomy. In principle, that could only be done on a voluntary basis, e.g. through therapy. At least, it cannot be made compulsory. There is greater scope for programmes aimed at improving self-control. This mental aspect is further removed from the core of someone’s personal identity and closer to skills. This leaves more scope for providing training, e.g. at nursery, at school or through the social work system. The scope for influencing behaviour by changing knowledge and beliefs is even greater. Take, for example, campaigns to discourage smoking and drug and alcohol use and encourage healthy eating.

It can do no harm to once again draw the parallel with forms of influence that are generally accepted. Any form of education is a form of moulding, modelling and disciplining people to become independent citizens. In this regard, there is no difference in principle between improving cognitive skills and other mental skills. However, this set of objections does highlight the importance of public accountability. It is precisely in these kinds of interventions that the government has to be open about the nature and scope of the interventions, and about the likelihood of their effectiveness.

*Labelling and stigmatisation*

A third possible objection concerns the risk of *negative labelling* and *stigmatisation*. More attention to self-reliance and mental capacities could result in yet more new additions to the existing profusion of labels in education and the social services. Is that really desirable? Would the government be going further along path to ‘normalising’ its citizens? We have already had people with dyslexia and dyscalculia. Will we now also have people with ‘dysregulation’? Having acquired that stigma, people may no longer be regarded as self-reliant or may feel relieved of the duty to exert self-control (‘I can’t do anything about it, I’ve got dysregulation’).
This danger is not entirely inconceivable. After all, the tendency to distinguish between ‘normal’ and ‘different’ is deep-rooted both among people and in institutions. In this book, our aim is to raise the crucial question of what is actually normal. To date, government policy has appeared to assume a uniform and high level of self-reliance and mental capacities. Implicitly, therefore, the government regards this high level as normal. However, the essence of this book is that there is no hard and fast dividing line between ‘normal’ and ‘different’. There is actually a wide variation among people in this respect and many people do not meet the high level that the government seems to regard as ‘normal’. Insofar as it is possible to talk about normal and different, it is precisely the people with a very high or very low level of mental capacities who are ‘abnormal’ and not the large group in the middle.

The risk of negative labelling and stigmatisation can never be completely ruled out but can be mitigated by acknowledging this wide variation and also acknowledging that the normal level by definition equates to the average level and not that of the top ten or twenty percent. It is just the same as intelligence. The average IQ is by definition 100. However, no-one would consider the mere fact that some people have an IQ of 80 or 120 as a valid reason for categorising them as inferior or relieving them of the duty to do their best. The most we can conclude is that one has been lucky in the lottery of life and the other has not.

5.4 What Should Be Done?

There is still a lot we don’t know about the possibility of strengthening self-regulation capacity through training. More and better research is required. However, based on the available research, the possibilities for strengthening the capacity for self-regulation by means of training do not seem particularly good.

At this juncture, it should be noted that the bar for proven effective interventions has been set high—perhaps even too high. It is particularly difficult and often very expensive to conduct research so as to really establish with 95% certainty that an intervention has a causal and lasting effect on specific societal outcomes. Anyone who wants to do this properly has to wait for many years before it is possible to draw conclusions with any certainty as to the long-term effects of an intervention. In reviews and meta-analyses, it is almost always remarked that many of the studies reviewed do not unfortunately conform fully to the highest methodological standards, that moreover a lot of uncertainty exists as to the long-term effects and that as a result more research is required.

The question is whether it is always desirable to delay interventions until the last uncertainty has been cleared up. In a previous publication, we noted that a certain conservatism is a typical feature of evidence-based policy thinking. There is an implicit assumption that the status quo is the best possible situation unless it can be stated with 95% certainty that the alternative is even better. It is a matter of debate whether that scientific conservatism is also always justified in the world of politics, policy and society. As the status quo has more disadvantages and problems, more should be said in favour of trying out new approaches, even though not all the evidence
is available as yet. This certainly applies to training which is aimed at people who currently have serious shortcomings in the capacities needed for self-reliance and in which participation is voluntary. Of course, a credible case will have to be made for the effect eventually, but excessive restraint also gives rise to the risk of missed opportunities.

How ‘firm’ the evidence should be also depends on how mandatory an intervention is. Programmes which are offered without obligation may be able to afford a little more uncertainty than programmes in which participation is mandatory. In the latter case, moreover, there are normative considerations and limits that have to be taken into account. If the government explicitly requires certain groups to attend a training course in non-cognitive capabilities deemed relevant, it may harm people’s mental integrity. There is also the danger of stigmatisation. The risk is that people with limited self-control—or other non-cognitive ‘shortcomings’—will no longer be taken seriously.

Finally, when it comes to such important capacities, it is of course logical to turn our attention to education. In recent years, there have been increasing calls for children to be equipped with non-cognitive skills. One the one hand, an approach targeting young children is more likely to succeed than an approach targeting adults, as young children are more malleable. The earlier an intervention starts, the greater the chance of success. On the other hand, however, there are also major practical objections. A large-scale offensive targeting many or all children would cost a lot of money and put a great strain on pupils and teachers. Before proceeding, harder evidence is required for the effectiveness and cost efficiency of interventions aimed at increasing self-regulation or other non-cognitive characteristics than is currently available.

Endnotes

1. Rothbart, M. K. (2011).
2. In fact, it is a regular occurrence for people to be very convinced of their own abilities in one domain but extremely unsure of their abilities in another domain.
3. Muraven, M. (2010).
4. Hagger, M. S., Wood, C., Stiff, C., & Chatzisarantis, N. L. (2010).
5. Inzlicht, M., & Berkman, E. (2015).
6. Beames, J., Schofield, T. P., & Denson, T. F. (2017).
7. The g stands for Hedge’s g, which is a standardised measure of the difference between the experimental group and the control group and is therefore similar to Cohen’s d, but corrected for small samples.
8. Friese, M., Frankenbach, J., Job, V., & Loschelder, D. D. (2017).
9. Diamond, A., & Lee, K. (2011, see also p. 959).
10. Diamond, A. (2013).
11. Melby-Lervåg, M., & Hulme, C. (2013).
12. Shipstead, Z., Redick, T. S., & Engle, R. W. (2012).
13. Kautz, T., Heckman, J. J., Diris, R., Ter Weel, B., & Borghans, L. (2014, see also p. 34).
14. Heckman, J. J., Moon, S. H., Pinto, R., Savelyev, P. A., & Yavitz, A. (2010, see also p. 28, 29).
15. Heckman, J., Pinto, R., & Savelyev, P. (2013).
16. ‘Externalizing behaviour’ could be regarded as an indication of a lack of non-cognitive skills. It was measured in this study on the basis of the assessments by teachers of characteristics such as disrupts classroom procedures, swears or uses obscene words, lying or cheating or aggressive towards peers.
17. de Ridder, D. T., Lensvelt-Mulders, G., Finkenauer, C., Stok, F. M., & Baumeister, R. F. (2012).
18. Galla, B. M., & Duckworth, A. L. (2015).
19. Gillebaart, M., & Ridder, D. T. (2015).
20. Moreover, if ego depletion does eventually occur, this does not provide ample scope just for bad habits but for good habits as well (Neal et al. 2013).
21. Oettingen, G. (2000).
22. Oettingen, G., Kappes, H. B., Guttenberg, K. B., & Gollwitzer, P. M. (2015, see also p. 564).
23. Gollwitzer, P. M. (1999).
24. Gollwitzer, P. M., & Sheeran, P. (2006).
25. Stadler, G., Oettingen, G., & Gollwitzer, P. M. (2010, see also p. 275).
26. Adriaanse, M. A., Oettingen, G., Gollwitzer, P. M., Hennes, E. P., de Ridder, D. T., & de Wit, J. B. (2010).
27. Duckworth, A. L., Grant, H., Loew, B., Oettingen, G., & Gollwitzer, P. M. (2011).
28. Lally, P., van Jaarsveld, C. H., Potts, H. W., & Wardle, J. (2010).
29. Kaushal, N., & Rhodes, R. E. (2015).
30. This also applies to another technique which is sometimes used and appears to have a favourable effect, namely ‘self-monitoring of behaviour’ (Michie et al. 2009).
31. Heijmans, M., Waverijn, G., Rademakers, J., van der Vaart, R., & Rijken, M. (2015).
32. We base our comments on an analysis of four meta-studies of ‘health literacy’: Heijmans et al. (2015), HEALIT4EU; Berkman et al. (2011) Health literacy interventions; Dennis et al. (2012) Which provider can bridge the health literacy gap in lifestyle risk factor modification education; Sheridan et al. (2011) Interventions for individuals with low health literacy: a systematic review.
33. According to the researchers, this has to do with the heterogeneity of outcomes, populations, research designs and measured outcomes.
34. Teixeira, P. J., Carraça, E. V., Marques, M. M., Rutter, H., Oppert, J.M, de Bourdeaudhuij, I., et al. (2015).
35. Ministerie van Financiën. (2016a, April).
36. van den Berg, M., & Schoemaker, C. G. (Eds.) (2010).
37. Ackermann, R. T., Finch, E. A., Brizendine, E., Zhou, H., & Marrero, D. G. (2008).
5.4 What Should Be Done?

38. van Sluijs, E. M., van Poppel, M. N., & van Mechelen, W. (2004).
39. Lakerveld, J., Bot, S. D., Chinapaw, M. J., van Tulder, M. W., Kostense, P. J., Dekker, J. M., et al. (2013).
40. Ammerlaan, J. W., Scholtus, L. W., Bijlsma, J. W. J., & Prakken, B. J. (2013).
41. Ammerlaan, J. W., Scholtus, L. W., Drossaert, C. H. C., van Os-Medendorp, H., Prakken, B., Kruize, A., & Bijlsma, J. J. W. (2014).
42. Ammerlaan, J., Mulder, O. K., de Boer-Nijhof, N. C., Maat, B., Kruize, A. A., van Laar, J., et al. (2016).
43. The training is derived from the Arthritis Self-Management Program (ASMP) of Stanford University in the United States, and is based on Bandura’s self-efficacy theory (Ammerlaan et al. 2016).
44. Website www.reuma-uitgedaagd.nl/volwassenen/trainingen Consulted on 06-06-2016.
45. Jungmann, N., & Madern, T. (2016).
46. In this study, they also looked at the sparse research into the effects of financial education in the Netherlands as well as the international literature.
47. Fernandes, D., Lynch, J. G., Jr., & Netemeyer, R. G. (2014).
48. Miller, M., Reichelstein, J., Salas, C., & Zia, B. (2014).
49. It appears to be generally difficult to conduct research into the effectiveness of interventions to combat unemployment. For example, the group of participants in a municipality may be too small to achieve significant results, there may be financial risks involved in not introducing a functioning policy immediately and there are ethical and social objections to placing people in a control group (De Koning et al. 2014).
50. The CPB (2016) states that these tools affect the job-seeking process in five different ways: by making the social security option less attractive, by threatening people, e.g. with training or other processes, through the inclusion effect of these processes, by making people more attractive to employers and by increasing knowledge and skills. Research has shown that measures such as temporary wage subsidies, supervision by client managers and sanctions achieve the best effects (Card et al. 2010; Kluve 2010; Card et al. 2015 in CPB 2016).
51. This includes the entire process of supervision and intermediary services, such as training in applying for jobs and teaching people to use social media (CPB 2016: 180).
52. Vinokur, A. D., Schul, Y., Vuori, J., & Price, R. H. (2000).
53. Vuori, J., Silvonen, J., Vinokur, A. D., & Price, R. H. (2002).
54. Practical aspects include job-seeking skills and self-presentation. ‘Motivation-related aspects’ means belief in one’s own abilities, proactivity, goal-setting, coping with stress and seeking social support.
55. Akkermans, J., Breninkmeijer, V., Schaufeli, W. B., & Blonk, R. W. (2015).
56. Koen, J., van Vianen, A. E. M., & Klehe, U. C. (2014).
57. Koen, J., Klehe, U. C., & van Vianen, A. E. (2012).
58. By ‘career adaptability’, Koen et al. mean “the readiness to cope with the predictable task of preparing for and participating in the work role and with the
unpredictable adjustments prompted by the changes in work and work conditions” (Koen et al. 2012).

59. Trommel, W. A. (2009).
60. Frissen, P. (2013).
61. Furedi, F. (2009).
62. Perhaps with the exception of some specific, clearly defined groups, such as forensic psychiatric patients.
63. It is interesting to look at research with regard to military personnel as well. Modern military operations involve a wide diversity of stressors that make heavy demands on mental capacities. For this reason, research has been conducted into the ‘mental resilience’ needed to continue to perform at optimum level and stay healthy during and also after missions (see, for example, Kamphuis et al. 2012; Delahaij et al. 2016).
64. WRR. (2009).