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# AN OVERVIEW OF BEHAVIORAL ECONOMICS IN DUTCH POLICY MAKING. THE NEXT STEP: HOW TO NUDGE POLICY MAKERS

Natasha Els Stroeker

*Panteia, Bredewater 26, Zoetermeer, the Netherlands*

**Abstract:** *This article describes the beginning of the influence of behavioral economics on the Dutch government. This started in the period that the UK started with its Behavioral Insights Team (BIT UK). The article presents explanation of the concept “nudging” and the way this is integrated in Dutch policy. Also leading publications and examples of how behavioral economics is used in policy making are presented. The advice of the government in 2014 on how to ensure a structural integration of behavioral science knowledge in policy is part of the next step. The next step contains two main parts: 1. How to nudge policy makers and 2. Embedding nudges in policy making on four aspects: positioning, projects, performance and professionalism.*

**Keywords:** *behavioral economics, nudging, government, Netherlands, policy making*

## 1. The beginning of behavioral economics in policy making

Increasing attention from the Dutch government to behavioral economics, sometimes also referred to as nudging started in 2009. This attention from the Dutch government coincided with the start of the Behavioral Insights Team in the UK (BIT UK)<sup>1</sup>. It is a social purpose company, jointly owned by the UK Government, Nesta (the innovation charity), and its employees. This team was the first government institution dedicated to the application of behavioral sciences with the following objectives:

- making public services more cost-effective and easier for citizens to use;
- improving outcomes by introducing a more realistic model of human behavior to policy;
- and wherever possible, enabling people to make ‘better choices for themselves’

The BIT UK wrote the MINDSPACE report as a framework to facilitate the application of behavioral sciences to the policy making process<sup>2</sup>. This was published on the first of January 2010. In this publication the most robust effects that have been repeatedly found to have strong impacts on behavior are Messenger, Incentives, Norms, Defaults, Salience, Priming, Affect, Commitment and Ego (which together form the acronym MINDSPACE). Another model based on MINDSPACE that the BIT UK uses is the EAST-

model: ‘if you want to encourage a behavior, make it Easy, Attractive, Social and Timely’<sup>3</sup>.

## 2. Behavioral economics and nudging

### 2.1 Interpretation of concepts

Traditionally policy makers use the traditional ‘preek, wortel en stok’ as policy interventions to change behavior. The Dutch ‘preek’ (sermon) refers to informative instruments to influence the social norm such as flyers or a communication campaign for the public. The Dutch ‘wortel’ (carrot) refers to economic instruments such as a financial compensation or a(n extra) subsidy. The Dutch ‘stok’ (stick) refers to regulative instruments with a compulsory character such as penalties or less financial payments. However, behavioral economics makes it possible to develop a different kind of policy interventions often referred to as nudging, while actually nudging is only a part of behavioral economics.

Behavioral economics is a collection of behavioral mechanisms that influence the behavior of an individual. A nudge is an intervention based on behavioral science knowledge, trying to change people’s behavior in a predictable way without forbidding options or to influence behavior based on economic incentives. A nudge should be easy to avoid. In marketing and communication nudges have already been used for decades. A nudge can also affect people’s behavior

1 <http://www.behaviouralinsights.co.uk/about-us/>

2 <http://38r8om2xjhh125mw24492dir.wpengine.netdna-cdn.com/wp-content/uploads/2015/07/MINDSPACE.pdf>

3 [http://38r8om2xjhh125mw24492dir.wpengine.netdna-cdn.com/wp-content/uploads/2015/07/BIT-Publication-EAST\\_FA\\_WEB.pdf](http://38r8om2xjhh125mw24492dir.wpengine.netdna-cdn.com/wp-content/uploads/2015/07/BIT-Publication-EAST_FA_WEB.pdf)

without them being aware of the nudge<sup>4</sup>.

Nudges do not influence behavior in a rational (top-down) way (Kahneman's system 2: slow, deliberative and logical) such as by means of regulations, permits, subsidies, and penalties, but by responding to unconscious processes, intrinsic motivation and heuristics (Kahneman's system 1: fast, instinctive and emotional)<sup>5</sup>.

Nudging responds to unconscious behavioral processes and gives a 'nudge' in the right direction without coercion or exclusion of alternatives. Not the economic rationale, but the social psychological rationale explains the behavior<sup>6</sup>.

## 2.2 Integrating Behavioral Economics in Dutch policy making

In the summer of 2013 the Rijksbreed Strategieeraad (government-wide strategy discussions) of the Dutch government has commissioned to organise an interdepartmental Kenniskamer Gedragwetenschappen (Knowledge Centre Behavioral Sciences, referred to in this publication as interdepartmental network of behavioral economics). In this interdepartmental network it was decided to increase the use of behavioral insights in policy making. In 2014 there has been an official reaction of the central government on leading publications of for instance the WRR, RMO and Rli concerning integrating behavioral economics in policy making (further explanation of these publications are given in paragraphs 3 and 4 of this article). In this reaction<sup>7</sup> the central government states that

The government aims at effective policy making. Often this policy making is intended to positively stimulate certain desired behavior and to discourage undesired behavior, for instance by laws and regulations, financial incentives or communications (see carrot, stick and sermon before). This is often based on the rational decision maker (see also publication

in Basis from Stroeker and de Ruig<sup>8</sup>). However, the image of human beings as conscious, rational decision makers is not complete and there are circumstances in which people act and behave differently and not rationally. Choices are influenced by systematic biases of the optimal (rational) choice. People have limited self-control and part of their decision making is unconscious. In these cases habits often play an important role. Also social norms have an enormous influence on the behavior of people.

Panteia developed a conceptual model based on the findings in the MINDSPACE report. This conceptual model is called the Panteia behavior conscious policy model (see figure 1). In our Panteia model we take account of what is mentioned in this governmental reaction (2014). The main aim of the model is to improve the effectiveness of policy making, by increasing the desired behavior and decreasing the undesired behavior, so that intentional effects of the policy instruments are optimal and the money is spent efficiently. To reach this we try to understand the behavior of individuals by explaining this from three areas which are *the individual* (Incentives, Defaults, Salience, Priming, Affect and Ego of MINDSPACE), *social environment* (Messenger, Norms and Commitment of MINDSPACE) and *the physical environment* (visibility, pleasure, convenience/ease, atmosphere).

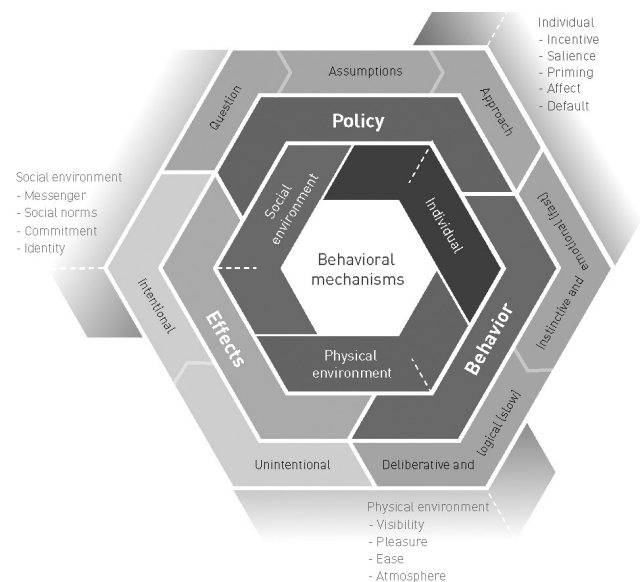


Figure 1.: The Panteia behavior conscious policy model

4 Kabinetsreactie op adviesrapporten van Rli, RMO en WRR over de benutting van gedragswetenschappelijke kennis in beleid [Government response to advice reports Rli, RMO and WRR on the use of behavioral science knowledge in policy], Ministerie van Economische Zaken, Directie Algemene Economische Politiek, AEP / 14170629, 4 december 2014.

5 Kahneman, D. (2012), *Thinking, Fast and Slow*. London, New York: Penguin Books.

6 Scherpenisse, J., M. van Twist, M. van der Steen, I. de Jong en N. Chin-A-Fat (2014). *Nudges onderscheiden. Over de inbedding van gedragspsychologie in overheidsbeleid* [Distinguishing nudges. About the embedding of behavioral psychology in government]. NSOB, Nederlandse School voor Openbaar Bestuur. Working paper van de NSOB Denktank.

7 Kabinetsreactie op adviesrapporten van Rli, RMO en WRR over de benutting van gedragswetenschappelijke kennis in beleid [Government response to advice reports Rli, RMO and WRR on the use of behavioral science knowledge in policy], Ministerie van Economische Zaken, Directie Algemene Economische Politiek, AEP / 14170629, 4 december 2014.

8 N.E. Stroeker en L.S. de Ruig, 'Afscheid van de Homo Economicus. De onbedoelde effecten van een simplistisch mensbeeld' [Farewell to the Homo Economicus. The unintended effects of a simplistic image of man kind], <https://www.rug.nl/staff/j.a.harbers/basispleidooivoordualisme.pdf> en Opnieuw verschenen in Symposium Special Gedragsbewust Beleid 2014, p. 9 - 13

### Leading publications, developments and examples of behavioral economics in policy

In the period from 2009 and beyond some leading publications were written on the integration of behavioral economics and nudging within policy making. This started with publications of the WRR, Wetenschappelijke Raad voor het Regeringsbeleid (The Netherlands Scientific Council for Government Policy), in 2009 (The human decider)<sup>9</sup>, 2010 (How people make choices)<sup>10</sup> and 2014 (Policymaking Using Behavioral Expertise)<sup>11</sup>. In these publications references were made to Thaler and Sunstein (2009)<sup>12</sup> and Kahneman (2012)<sup>13</sup>. Also institutions such as RMO (Raad voor Maatschappelijke Ontwikkeling, Council for Social Development)<sup>14</sup>, Rli (Raad voor Leefomgeving en Infrastructuur, Council for Environment and Infrastructure)<sup>15</sup>, part of the Dutch ministry of Infrastructure and Environment, ZonMw<sup>16</sup> and Nederlandse School voor Openbaar Bestuur (NSOB, Dutch School of Public Administration)<sup>17</sup> wrote publications on this topic.

In this period between 2009 and 2014, the year of the official reaction of the government on publications of Rli, RMO and WRR, there are examples of actions within the central government and within the ministries such as: effective and clear names for legislation which make clear what the specific law is about. Another example concerns de Belastingdienst (tax authorities, part of the ministry of Finance). This Dutch government organisation is very active on using behavioral economics within its policy making; they are stimulating compliance of the law by using insights from behavioral economics. See for instance advice 4 in paragraph 4. Also, the ministry of Infrastructure and Environment is

very active on this topic, for instance with the program 'Beter benutten' (improve use) in which the behavioral component is completely integrated in a broad approach. Scope of this project is to see who is capable of and can be motivated to change behavior<sup>18</sup>.

For instance the example of loaded busses (an example of 'Beter benutten'). In the past, not thinking from a behavioral point of view, an increasing number of travelers in public transport during rush hour would be solved by increasing the number of busses. Now there has been consultation between schools, the carrier and the local government to change the teaching periods at school. The result is that the students do not travel in the rush hours anymore and the buscompanies can suffice with the number of busses they used before.

Also, municipalities are getting more and more interested in using the insights from behavioral economics in their policy making<sup>19</sup>. Some municipalities give their employees training on nudging, so they can learn how to understand the behavior of their inhabitants and how to influence their behavior. Also, projects have been undertaken successfully to improve waste gathering in order to get clean streets and areas.

Some other relevant examples are mentioned below, to give an impression of which ministries, councils and policy organisations are involved in behavioral economics.

Research by the ministry of Social Affairs and Employment concerning the behavioral mechanisms behind the unintended effects of social security and re-integration (2012)<sup>20</sup>.

Research by the ministry of Public health, Welfare and Sport concerning the behavioral aspects behind the choice for a certain register system for organ donation (2014)<sup>21</sup>.

Research commissioned by ZonMw in 2015 with advice concerning research on nudging in the area of public health. Potential nudges are ordered in rank concerning effectivity, feasibility and acceptability. For instance, the distribution of free earplugs at festivals scored high on feasibility and acceptability, but less in terms of effectiveness<sup>22</sup>.

Research in the period 2014 – 2019 by the National Institute for Health and Environment (RIVM): the main aim is to gain knowledge and expertise on how to reach a healthy lifestyle and promote health. In order to do so there will be

9 W.L.Tiemeijer, C. Thomas & H. Prast (eds.2009) *De menselijke beslisser* [The Human Decider], Amsterdam: Amsterdam University Press.

10 W.L. Tiemeijer (2010) *Hoe mensen keuzes maken* [How People Make Choices]. Amsterdam: Amsterdam University Press.

11 WRR (2014) *Met kennis van gedrag beleid maken* [Policymaking Using Behavioral Expertise], Amsterdam: Amsterdam University Press.

12 Thaler, R.H., Sunstein, C.R. (2009), *Nudge. Improving decisions about health, wealth and happiness*. London: Penguin Books.

13 Kahneman, D. (2012), *Thinking Fast and Slow*. London, New York: Penguin Books.

14 RMO, J. (Jasper) Zuure Msc (2014). *De verleiding weerstaan. Grenzen aan beïnvloeding van gedrag door de overheid* [Resist the temptation. Limits to influence behavior by the government].

15 Rli (Raad voor de leefomgeving en infrastructuur) (2014). *Doen en laten. Effectiever milieubeleid door mensenkennis* [Do's and don'ts. Effective environmental policy by human knowledge].

16 ZonMw (2015). *Wetenschappelijk kader nudging in de publieke gezondheidszorg* [Scientific framework nudging into the public health care]. In opdracht van ZonMw. Eindrapport (1 juli 2015). Prof. D.T.D. de Ridder en dr. M. Gillebaart, Universiteit Utrecht.

17 Scherpenisse, J., M. van Twist, M. van der Steen, I. de Jong en N. Chin-A-Fat (2014). *Nudges onderscheiden. Over de inbedding van gedragspsychologie in overheidsbeleid* [Distinguishing nudges. About the embedding of behavioral psychology in government]. NSOB, Nederlandse School voor Openbaar Bestuur. Working paper van de NSOB Denktank.

18 More information and examples can be found on this website: <http://www.beterbenutten.nl/nieuws/410/ienm-op-big-improvement-day-anders-kijken-beterbenutten>

19 Bron: <http://www.vngmagazine.nl/nudging>

20 <http://www.gemeenteloket.minszw.nl/binaries/content/assets/Re-integratie/2012-02/Eindrap-def-jan12.pdf>

21 Faun (H), M. Hollander, T. Span (Panteia) en prof. W.F. van Raaij (Tilburg University) (2014). *Registratiesystemen voor orgaandonatie* [Registration system for organ donation]. Panteia en Universiteit Tilburg in opdracht van het ministerie van VWS, <http://www.panteia.nl/Over-Panteia/projecten-en-publicaties/Overzicht-publicaties/765650141%20Registratiesystemen-voor-orgaandonatie>

22 ZonMw (2015). *Wetenschappelijk kader nudging in de publieke gezondheidszorg* [Scientific framework nudging into the public health care]. In opdracht van ZonMw. Eindrapport (1 juli 2015). Prof. D.T.D. de Ridder en dr. M. Gillebaart, Universiteit Utrecht.

an overview of proven effective nudges in this area, best practices will be gathered in the health policy in UK and US and a network will be formed with Dutch researchers who are involved in projects on nudging and health. The outcomes will be shared in national and international networks of researchers and will be integrated in the NWO (the Dutch Organisation for Scientific Research) project Welfare Improvement through Nudging Knowledge (WINK). This NWO project is concerned with the question: is government responsible for welfare and health of its citizens or is this their own responsibility?<sup>23</sup>

### 3. Advice from the government concerning the next step

The governmental reaction in 2014<sup>24</sup> contained the next five advices for the next step:

*Advice 1. Use knowledge from behavioral economics in the entire process of policy making*

To make this more specific: ministries should start and have already started pilot projects. This happened, for example, around food wastage (ministry of Economic Affairs), waste in the area of healthcare (ministry of Health, Welfare and Sport) and promotion of tax compliance and improving energy efficiency.

*Advice 2. Opt for policy making based on research and practical experience through policy evaluations (ex-post) and empirical testing in advance (ex-ante)*

This can also be done by the pilots mentioned before: develop policy interventions based on ex-ante policy analyses and test these in advance. The aim of the pilots is to gather proof. This proof can be used to base new policy interventions on.

*Advice 3. Be transparent on the use of nudges*

*Advice 4. Take care of the impact of policy on the choice pressure that people experience by making this experienced choice pressure feel 'lighter' by:*

Increasing the choice skills of citizens and their self control  
Recognizing that there are limits to the choice pressure that people can handle (make it easier for them to choose).

A relevant illustration of 'to make it easy' is an example of the Dutch tax authority. This authority has simplified their forms and communicates by means of the following slogan: 'We cannot make it fun, but we can make it easier'.

*Advice 5. Ensure a structural integration of behavioral science knowledge in policy*

One of the recommendations concerns the interdepartmental network between all ministries which is already a fact at the moment. Part of the recommendation is also to cooperate with

<sup>23</sup> <http://www.nwo.nl/onderzoek-en-resultaten/onderzoeksprojecten/i/39/11439.html> (period: 1-9-2014 to 31-5-2019).

<sup>24</sup> Kabinetsreactie op adviesrapporten van Rli, RMO en WRR over de benutting van gedragswetenschappelijke kennis in beleid [Government response to advice reports Rli, RMO and WRR on the use of behavioral science knowledge in policy], Ministerie van Economische Zaken, Directie Algemene Economische Politiek, AEP / 14170629, 4 december 2014.

universities. The aim is to explore, based on experiences and lessons learned from the departmental pilots, how a broad behavioral scientific perspective can be embedded in the design of ex-ante and ex-post policy evaluations.

### 4. The next step: embedding of nudging in policy development / making

Summarizing, there have been a lot of publications in the past few years in this area concerning the question how nudging can be applied by policy makers. Just as the five advices mentioned above these publications all ended with recommendations for the government in the expectation that this would lead to change of behavior of policy makers. However, here still seems to be a hiccup. Of course the interdepartmental network of behavioral economics within the central government has done part of its work already. There are central coordinators at each ministry who try to involve the other policy makers. But how do you reach the situation in which including behavioral economics is part of the daily routine of policy making? Or to say it in another way, how can policy makers best be encouraged and enabled to apply these insights? How are future 'nudgers' of the central government nudged themselves to apply the behavioral knowledge? Which approach could be used?

*Step 1 Nudging policy makers*

(1) Change the default options of policy makers. Show good practices of nudges that work in policy making. The pilots of the individual ministries are based on this idea (see advice 1).

(2) Change the associations that policy makers have with behavioral economics. Now often rather technical and academic concepts are used, such as choice architecture and behavioral analytic framework. Concepts should be used that fit better into the practice of policy making

(3) Use gamification. This could be helpful in this stage too (see figure 2)



Figure 2. Example of the use of gamification

Step 2. Embedding nudges in policy making: positioning, projects, performance and professionalism

The embedding of nudges in policy making should be done on four levels as is presented in table 1 below. First of all the question is raised where in the organisation the responsibility for nudging should be positioned. This is a very important decision which is connected to commitment from top management of the central government and the individual ministries. In the Netherlands there is a interdepartmental network for all ministries and each ministry had its own decentral approach. In some ministries there are separate nudge units or BITs, for instance within the Ministry of Economic Affairs and the Ministry of Infrastructure and Environment. For policy making there is the integrated decision-making framework (IAK). Behavioral components are part of IAK already by means of five instruments<sup>25</sup> but it is unclear whether these behavioral elements have an important role in actual policy making yet. These behavioral aspects are also no structural part of projects yet. There are no handbooks on this subject for policymakers yet. However, most ministries do have pilot projects, for instance on food waste and a lot of examples in the area of infrastructure and environment.

The performance of using behavioral aspects in policy making should be that the results are visible, out-in-the-open and that policy makers that have contributed to these results are rewarded ('celebrating' success). At this point in time most of the ministries are working on gathering proof for behavioral economics and the impact that including these insights into policy works to get effective policy. In practice it is sometimes still hard to get this proof.

To completely integrate behavioral economics into policy making there should be a certain degree of professionalism. This subject should for instance be a structural part of the curriculum of a policy maker. This is not the case at this moment in Dutch policy making.

Table 1. Embedding of nudging in policy making on 4 levels: the 4 P's

The 4 p's	Dimensions	Some options
Positioning	<ul style="list-style-type: none"> <li>• Within or outside the central government</li> <li>• Central versus decentral</li> <li>• Spread /concentrated</li> <li>• Network / organisation;</li> <li>• Within line / staff management</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge function outside of central government</li> <li>• Nudge-Unit (f.i. ministries of Economic Affairs and Infrastructure and Environment)</li> <li>• Interdepartmental network (yes)</li> <li>• Standard part of policy making (IAK)</li> </ul>

The 4 p's	Dimensions	Some options
Projects	<ul style="list-style-type: none"> <li>• Advising / intervening</li> <li>• Before, during or after policy making (ex-ante, process evaluation, ex-post)</li> <li>• Structural / ad hoc</li> <li>• Evaluating</li> </ul>	<ul style="list-style-type: none"> <li>• Handbook policymakers</li> <li>• Evaluation concerning existing policy</li> <li>• Experiments / pilots (most ministries)</li> <li>• Important part of policy design (not yet)</li> </ul>
Performance	<ul style="list-style-type: none"> <li>• Visible / hidden</li> <li>• Step in policy process / independent</li> <li>• celebrating success / let policy makers shine</li> <li>• Inspire/ improve</li> <li>• Targeting policy / politics</li> </ul>	<ul style="list-style-type: none"> <li>• Prove that policy works</li> <li>• Inspire others</li> <li>• Realize savings / reductions</li> <li>• Contribute to policy aims</li> <li>• Strengthen citizens' options</li> </ul>
Professionalism	<ul style="list-style-type: none"> <li>• Competence of each policy maker / special team</li> <li>• Evaluative (ex-post) / advise (ex-ante)</li> <li>• Science / policy</li> <li>• Uni-/multidisciplinary</li> <li>• Content/system and process</li> </ul>	<ul style="list-style-type: none"> <li>• Structural part of the curriculum of a policy maker (civil servant)</li> <li>• Educate a select group as 'innovators'</li> <li>• Experts who do test on quality</li> <li>• Game / checklist</li> </ul>

Sources: NSOB report<sup>26</sup> and <https://www.pleio.nl/blog/view/28050442/met-kennis-van-gedrag-beleid-maken>. The author has copied this table from the sources and has only made a translation from Dutch to English.

What can be concluded for the Dutch government from conversations with policy makers is that each ministry has its own approach. The focus in most ministries is on positioning and projects and some ministries already have results to present (performance) and success to celebrate. A part of the success can also be influenced by backing of top management: if this support is present from the beginning and there is an enthusiastic special team of policy makers responsible for behavioral economics within the ministry then the progress can be rapidly made. What could in general help is: make clear to which degree the five instruments of influencing behavior, which are part of IAK, are actually used or considered in the evaluation of the proposed policy on behavioral dimensions.

Thus, the next important steps are:

To nudge the policy makers to use the "behavioral" economics toolbox including the five instruments of the IAK.

To obtain the support of (top)management in ministries and within the entire ministry (top-down and bottom-up).

To integrate a broad behavioral scientific perspective in the design of ex-ante and ex-post evaluations.

These are important next steps to ensure a structural integration of behavioral science knowledge in policy making and evaluation.

25 <https://www.kcwj.nl/kennisbank/integraal-afwegingskader-beleid-en-regelgeving/6-wat-het-beste-instrument/61/categorie%C3%ABn?cookie=yes.1457711465038-1018402371> (the five aspects are: feedback(loop), framing & labelling, behavior contract and implementation intentions, choice architecture and environmental stimuli)..

26 Scherpenisse, J., M. van Twist, M. van der Steen, I. de Jong en N. Chin-A-Fat (2014). Nudges onderscheiden. Over de inbedding van gedragspsychologie in overheidsbeleid [Distinguishing nudges. About the embedding of behavioral psychology in government]. NSOB, Nederlandse School voor Openbaar Bestuur. Working paper van de NSOB Denktank.

