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article

Brokering behaviour change: the work of behavioural insights experts in government

Joram Feitsma, j.n.p.feitsma@uu.nl
Universiteit Utrecht, Netherlands

A behavioural insights community has emerged within a growing number of governments. While this community helps to make policies more behavioural science based, its frontstage role models tend to assume a straightforward, instrumental and apolitical view of the science–policy relationship that seems unrealistic. This article therefore examines what goes on backstage in this community, based on an ethnographic study of behaviour experts in Dutch central government. The article argues that their work consists of a complex palette of practices (that is, choice architecture; analysis; capacity building). Because these practices resemble typical knowledge brokerage work, the article pushes for an envisaging of 'behaviour experts as knowledge brokers'.

key words nudge • knowledge brokers • Dutch government • ethnographic research

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Introduction

Behavioural science, and in particular behavioural economics, has recently been seen as a promising source for better policymaking (Lunn, 2012). This 'behavioural turn' manifests itself in governments' widespread consultation of behavioural economics bestsellers such as *Nudge* (Thaler and Sunstein, 2008), *Predictably irrational* (Ariely, 2008), and *Thinking, fast and slow* (Kahneman, 2011), as well as the appointment of leading behavioural scholars in key government posts, for instance *Nudge* co-author Thaler as strategic advisor to the United Kingdom's Cabinet Office. Most pivotally, though, the behavioural turn is visible in the trend towards specialised 'behavioural insights teams' (BITs) in Anglo-Saxon governments. These BITs form the 'frontstage' of behavioural policymaking and act as role models for how to translate behavioural science to policy. As special behavioural units, they present themselves as a new and exclusive policy profession, embodying its own knowledge, skills and identity. Central to this identity is the use of randomised controlled trial (RCT) methodology on subtle, psychologically-informed policy changes in order to optimise policies in an evidence-based way (John, 2014; BIT, 2012).

While acknowledging that the behavioural policy frontstage has been highly successful in putting behavioural science on the policymaking agenda, it also has

a more problematic side. That is, it both implicitly and explicitly makes a number of problematic assumptions about the nature of the policy process and the role of evidence. More specifically, it tends to view the process of embedding behavioural science evidence into existing policy procedures as a rather simplistic matter of 'applying behavioural insights' (for example, Van Bavel et al, 2013; World Bank, 2015; Hallsworth et al, 2016). This rather straightforward, instrumental, and apolitical take on the science–policy relationship has been widely critiqued (for example, Lindblom, 1959; Simon, 1985). As such, one may wonder how representative this behavioural policy frontstage is for what actually goes on backstage when policy actors try to feed behavioural science into their organisation. In light of this question, this article aims to make two contributions, one empirical and the other theoretical. The empirical contribution is made by going backstage and generating 'thick' descriptions of the people inside the behavioural insights world beyond its spectacular and well-known frontstage. The article zooms in on an underexplored locus, Dutch government, where a behavioural insights community is slowly emerging within ministry buildings, but also beyond the deep state; from secondary school canteens to military training camps. By shedding light on actual, day-to-day practices, the article will show that the Dutch behaviour experts are misrepresented by the behavioural policy frontstage with respect to the complexity of their endeavours. From that observation, a theoretical contribution is made by linking the complexity of everyday behavioural policy practice to the literature on knowledge brokerage (Hoppe, 2010; Knight and Lyall, 2013; Ward et al, 2009). Knowledge brokerage refers to the idea that before evidence is actually useable in policy settings, it first needs to be properly brought in, moved around, translated and contextualised. This article will argue that behaviour experts are better understood as such knowledge brokerage agents than as the direct choice architects envisioned in the literature.

The article first discusses the emergence of 'behavioural insights' in the global policy arena, and then briefly summarises theoretical debates on the use of evidence in policymaking. After elaborating on the ethnographic research approach, and revealing the emerging Dutch landscape of behavioural expertise, the article then highlights three key practices of behaviour experts: (1) choice architecture, in various forms, (2) analysis and (3) capacity building. The case is made that, in light of these particular practices, behaviour experts assume the role of knowledge brokers.

The long winding road from behavioural insight to policy

The interest of governments in behavioural science is hardly a novel phenomenon, but something that has appeared and re-appeared in many different guises. There are longstanding policy traditions that capitalise on theoretical and methodological insights from behavioural science, for instance drawing from Simon's (1985) account of the rationally bounded *homo psychologicus,* Tversky and Kahneman's (1974) heuristics and biases programme, social marketing theories (Pykett et al, 2014), behavioural policy design theories (Schneider and Ingram, 1990), and evidence-based policy thinking (Cabinet Office, 1999). Since *Nudge* (Thaler and Sunstein, 2008), governments worldwide have launched various behavioural insights-related initiatives to enrich their policies with findings and methods from behavioural science (OECD, 2017). Prominent behavioural economists became influential policy advisors, strategies to integrate behavioural insights into the policy process were formulated, and, inspired

by the original BIT in the United Kingdom, special BITs were formed inside many governments, including Denmark, France, Germany, Singapore and the Netherlands (Lourenço et al, 2016). Furthermore, according to Whitehead et al (2014), two-thirds of the countries worldwide have behaviourally-informed policies in one way or another, suggesting that this development is already widespread.

The behavioural policymaking trend has received substantial academic attention in the last decade (John, 2014; Whitehead et al, 2017; Lodge and Wegrich, 2016; Strassheim et al, 2015). Thus far, major themes in the study of behavioural policies include their effects and working mechanisms (for example, Thaler and Sunstein, 2008), legal implications (for example, Alemanno and Sibony, 2015), political meanings (for example, Leggett, 2014), and ethical desiderata (for example, Bovens, 2008). A mainstream discourse has developed about what behavioural insights are, and how they should be put into policy practice. Core foci in this discourse are the discovery of nudge-interventions as a novel toolkit that recognises the more-than-rational aspects of human behaviour, and the importance of *ex ante* evaluating of 'what works' with the help of RCTs. As such, the advocacy of behavioural policymaking goes hand-in-hand with that of earlier advocacy of evidence-based policymaking (for example, Cabinet Office, 1999).

It is important to recognise what the leading behavioural policy discourse implicitly assumes about the relationship between science and policy. That is, it tends to depict the integration of behavioural insights into policy practice as a straightforward, simple, and liberating act. It is not coincidental that in general the field talks about 'applying' behavioural insights to policies, exemplified by titles as *Behavioural insights applied to policy* (Lourenço et al, 2016), and emphasising the *simplicity* of that application, illustrated by titles such as *EAST: Four simple ways to apply behavioural insights* (BIT, 2014). Such jargon points to a particular conception of behavioural policymaking as involving the simple, direct and rational-minded 'transferring' of evidence from science to the policy realm. The success of *Nudge*, for example, has come in part from its ability to make simple translations of academic behavioural insights to concrete interventions, resulting in a book that is not only littered with examples of successful nudges but also parsimoniously presents the basic 'principles of good choice architecture' with the help of the acronym 'NUDGES' (*in*centives, *u*nderstand mappings, *d*efaults, *g*ive *f*eedback, *e*xpect error and *s*tructure complex choices) (Thaler and Sunstein, 2008). While acknowledging that many reports from the behavioural insights frontstage do indeed make initial note of the complex processes behind behavioural policymaking, they nevertheless predominantly focus on extracting lists of simple 'principles' and 'tools' from the body of behavioural scientific knowledge rather than on going into depth about these complexities. For instance, a typical behavioural insights report in the context of health states that '[i]t seeks to arm the professional or policymaker with a simple set of tools that can be used to help shape patient or population health behavior for the better' (Hallsworth, 2016, 3). This instrument-oriented emphasis on application principles, examples and tools, implies that the appropriate role of behaviour experts would be that of *choice architect*, tweaking environments here and there in subtle ways. Moreover, they would do this while continuously testing 'what works', which points to another set of implicit assumptions, namely that it is both possible and desirable to produce fixed causal knowledge about the effects of policy changes, and that RCTs have the highest epistemic authority in doing so. The prevailing behavioural policy discourse

thus makes at least three assumptions: the instrumental relationship between science and policy; the stable and universal character of knowledge; and the hegemony of RCTs as the golden standard of evidence (Rouw, 2011).

The above-mentioned assumptions stand at odds with the literatures on policy translation (Ingold and Monaghan, 2016), knowledge brokerage (Hoppe, 2010; Knight and Lyall, 2013), and evidence-based policy critique (Cairney, 2017). These literatures cast doubt upon a rationalist, instrumental and apolitical application of science to policy. To begin with, the idea that evidence will naturally find its way into the right policy actor's hands at the right time is contestable. Translating and circulating evidence requires the extensive work of connecting to relevant policy actors, speaking in their language, and meeting their needs. As contemporary policymaking is best understood as a disjointed process in which many actors – public and private, political and administrative – participate, with the governments in an increasingly distanced and *meta-governing* role (Sørensen and Torfing, 2009), the work of translating evidence has at once become more crucial and complex.

Additionally, it is important to recognise the role that bounded rationality plays within that disjointed policy process. Lindblom (1959) has demonstrated that policymakers are generally prone to stick to the status quo. Driven by the political imperative to act at the right time, they tend to satisfice with partial analyses, consider only incremental changes, and refuse to look at new types of evidence and methods. Moreover, as behavioural insights embody a big family of ideas (including controversies and conflicts), it can hardly be expected that policymakers incorporate these insights on their own, especially given that many of them do not have a background in behavioural science. Here too, translation work would be needed that surpasses a simple 'applying behavioural insights' mentality.

Furthermore, one can question the behavioural policy discourse's assumptions about the nature and hierarchy of evidence. That is, its elevation of causal 'what works' knowledge, and its assumption that such knowledge is fixed and universal, is problematic (Cairney, 2017). A fundamental difference between science and policy is that while policy is future-looking and about 'what to do next' (Rip, 2000), science is past-oriented (Kuhn, 1962) and fundamentally uncertain about the future. It would therefore be more accurate to replace the evidence-based mantra of 'what works' with 'what worked' (Biesta, 2007). Moreover, beyond this limited 'what worked' knowledge gained through experiments, there are various other, softer ways of gathering evidence that may provide policymakers with knowledges that experiments cannot produce. For instance, while experimental knowledge may show the behavioural effects of a certain intervention on a certain group at a certain place and time, qualitatively produced knowledge has the capacity to produce rich and situated accounts of the underlying experiences, thoughts and mental life behind human behaviours that can help to explain such effects. Another important type of evidence that is little recognised by the behavioural policy discourse is local 'how-to' knowledge, which is a crucial requirement for policymakers to actually integrate generic knowledge in particular contexts (Rouw, 2011). In this sense, evidence-based policies can at the same time be 'evidence-blind' to the extent that they exclude valuable sources of evidence other than RCT-evidence. Policymakers may benefit from incorporating a broader palette of evidence bases.

Last, the behavioural policy discourse seems to overlook the fact that the science–policy relationship is inherently politicised (Hoppe, 2010; Lindblom, 1959). It

disregards that evidence is not necessarily brought in for the instrumental purpose of more rational policymaking, but also serves political agendas and interests that can easily overrule an instrumental use of evidence. More specifically, policymakers employ several techniques to deal with evidence, as they may cherry-pick the evidence they need and disregard the rest ('fish'); seek to exert influence over researchers to 'fabricate' desired evidence ('farm'); discredit evidence that is detrimental to chosen policy directions ('flak'); or place constraints on those actors who produce or promote such evidence ('strain') (Ingold and Monaghan, 2016). Behavioural insights are not excluded from such politicisation of evidence, but are also part of a process of being framed, moulded or neglected in order to satisfy particular political powers and interests. They are subject to the interplay between the fundamentally conflicting languages, rhythms and logics of science and policy. In introducing these insights into the policy system, one would not come far with a simple 'knowledge transfer' mindset. Here too, translation work is needed, mediating between the conflicting worlds of science and policy.

In light of the above-mentioned critiques, it becomes less plausible to view behaviour experts as choice architects who directly apply behavioural science. Instead, this article will argue that, based on the ethnographic findings of this study, behaviour experts are better understood as *knowledge brokers* (Meyer, 2010). The notion of knowledge brokerage has arisen against the background of an increased acknowledgement of the complexity and conflict in the science–policy relationship, resulting in 'evidence-policy gaps' in which policies are formed without being attuned to the available body of relevant evidence. To diminish these gaps, a professional group of 'dedicated knowledge brokers' has made its appearance within governments, with official role titles like 'diffusion fellows', 'knowledge transfer associates', and 'chief science officers' (Kislov et al, 2016). Knowledge brokers can be understood as 'boundary arrangements' (Hoppe, 2010), dedicated to the collection, diffusion, and translation of evidence so as to smooth the flow of information between science and policy (Knight and Lyall, 2013). The nature of knowledge brokerage can be described more specifically by the knowledge broker's three main tasks: information management (*gathering* and *transferring*); linkage and exchange (*networking*); and facilitation in turning situated knowledge into action (*transforming* and *facilitating*) (Kislov et al, 2016; Ward et al, 2009). This article will point out that the Dutch behaviour experts in central government also belong to this group of knowledge brokers – with the specification that they are *internal* knowledge brokers working with *behavioural scientific* evidence. In both their thinking and practice, they go well beyond a simplistic 'knowledge utilisation' model. They recognise the need for extensive brokerage work, see themselves as the appropriate actors to meet that need, and organise themselves (for example, as special units between boundaries) and act (for example, training, networking and building tools) accordingly to this understanding of their role in government. Hence, the article argues for a renewed, more realistic conception of behaviour experts: as knowledge brokers instead of direct choice architects. Table 1 summarises this contraposition and the underlying assumptions in it.

Table 1: Behaviour experts as choice architects versus knowledge brokers

Behaviour experts as choice architects	Behaviour experts as knowledge brokers
• The science–policy relationship is straightforward and instrumental. • Policymakers have unbounded rationality, time and resources. • Causal 'what works' knowledge is determinate and the golden standard of evidence. • Policies are made by small, centre-staged policy clusters in which behaviour experts have relatively much controlling power over the choice architecture. • Behavioural insights are easily converted to concrete applications (e.g. nudges) and do not require brokerage. Behaviour experts can focus on actual application (i.e. choice architecture) straight away.	• The science–policy relationship is chaotic, circuitous and politicised. • Policymakers have bounded rationality, time and resources. • Causal 'what works' knowledge is provisional, and there is a need for local, experiential, tacit 'how-to' knowledge • Policies come about in wide, disjointed parts of (meta)governance in which the controlling power over the choice architecture is widely dispersed across actors. • Behavioural insights first must be translated in line with the rhythm, logic and language of policymaking before they are usable. And even then, continuous promoting, networking and translating work is needed for actual take-up.

Methods

This article starts from the little-used (exceptions include Whitehead et al, 2017; John, 2014; Feitsma, 2016) viewpoint that to understand the world of behavioural policymaking, it is important to study its people. From them we can learn how behavioural insights are being used in practice. Moreover, to get a deeper sense of what actually goes on inside the behavioural insights field, beyond the official stories told at the frontstage, it is important to study these people more intensively, longitudinally, in their natural habitats. Studying them from up close helps to uncover backstage realities (Van Hulst, 2008) and provide a sense of the 'everydayness' (for example, typical rituals, routines, discourse and so on) which adds 'thickness' to our understanding of the field. This article adopts such an ethnographic approach, and falls within a longer tradition of 'administrative ethnography' (Boll and Rhodes, 2015; also see for example, Rhodes et al, 2007; Van Hulst, 2008, and even Kaufman, 1960). Following the ethnographic principle of 'being there' (Rhodes et al, 2007), I set out to study behaviour experts 'out there', to see who they are and what they actually do. Over the course of 16 months (November 2014 until March 2016), I immersed myself in the worlds of behaviour experts and examined their everyday work practices, including their typical tasks, techniques, routines, tools and language. My methodological toolkit consisted of talking, observing and reading (Rhodes et al, 2007). I started with ten unstructured, preliminary interviews with scholars and practitioners in the field of behaviour change. Then I performed 24 semi-structured interviews with 35 behaviour experts in the Dutch government. The interviews were guided by sensitizing topics, addressing the interviewees' *professional background*, *work relations*, *goals and tasks*, *everyday practices*, *successes and challenges*. Alongside interviewing, I observed behaviour experts in and out of their offices on 17 different occasions. The observations were short, up to five hours, totalling around 55.5 hours. More specifically, ten observations consisted in attending (internal) educational and knowledge exchange related events, five in shadowing behaviour experts during work, and two in unstructured conversations with behaviour experts at their workplace. This type of 'hit-and-run ethnography' (Rhodes et al, 2007) – going in and out of the field,

making short visits to different local sites – allowed me to observe behaviour experts in varied contexts, and balance being time-efficient with acquiring a sufficient degree of texture, nuance and depth in my observations. At the same time, a limitation of this hit-and-run approach is that it allowed less space for a very deep immersion in which the behavioural policy backstage, including its more shadowy parts, could be captured more comprehensively. Rather, I have captured and reconstructed some of it. Throughout the research process I also studied relevant documents (public reports, presentations, e-mails, memos and so on) as a third source of data. The presented findings flow from the aggregate of all interview, document and observation data. The interviews were recorded, selectively transcribed and turned into field reports that followed the structure of the sensitizing topics. Field notes during observations were also translated into field reports. Analysis and text work consisted in continually interpreting, comparing and reconstructing the data, *inter alia,* looking out for salient themes, noting differences and similarities, clustering information into categories, and translating initial fieldnotes into more elaborate case illustrations.

The case selection process started out with mapping the presence of behaviour experts in Dutch government. While later in the mapping process I used the snowballing technique and kept a list of existing behavioural units which I verified with respondents, I started with exploratory desk research. I looked at previous research (in particular Dorren, 2015) on Dutch behaviour experts, and performed Google-searches (in Dutch) for, *inter alia*, 'nudging', 'behavioural insights teams' and 'applying behavioural insights', in combination with the name of particular agencies. Broad and varied search terms were needed, as the jargon of behaviour experts tends to vary and is still evolving, even though their practices are similar. Based on these searches, I screened through various content, such as reports, websites and online work profiles. As this initially resulted in a broad and blurry set of many potential 'quasi-behaviour experts' that only used behavioural science incidentally or implicitly, I followed some stricter selection criteria. I only selected self-proclaimed behaviour experts in Dutch central government who were structurally and explicitly using behavioural insights. Conversely, those who did not profile themselves explicitly as behavioural science appliers, or only used them in an *ad hoc* or retrospective fashion, were excluded. Also, I only selected behaviour experts who worked directly for government. Within these boundaries, I selected a wide range of behaviour experts across policy domains and agencies, and included all of the relatively large behavioural units.

Behavioural insights studies have shown that the global landscape of behavioural insights is rather differentiated (Whitehead et al, 2017). Within this fragmented landscape, the Dutch central government forms a comparatively low-profile case as most of the literature focuses on the Anglo-Saxon forerunners in the field, such as BIT (for example, John, 2014; exceptions are Lourenço et al, 2016; OECD, 2017). Nevertheless, the Dutch government accommodates various kinds of emerging behavioural practices which are important to study in order to understand behavioural policymaking in all of its varieties. The representativeness of Dutch behavioural practice for its international counterparts should, however, not be overstated. Rather, studying the Dutch case may help to shed more light on the role of institutional context in shaping unique varieties of behavioural policymaking. Unlike the Anglo-Saxon cases, the Dutch government has not yet deeply institutionalised behavioural expertise and shows more signs of an expert- and consensus-based policy culture

rather than an evidence-based policy culture (compare Strassheim et al, 2015). Such contextual differences are likely to affect what kind of behavioural policy practices emerge.

The Dutch landscape of behavioural expertise

The Dutch central government exhibits an explorative yet widespread interest in behavioural insights. Thaler and Sunstein's (2008) *Nudge* was followed up with a string of reports on behaviourally-informed policy from official advisory bodies for the government, peaking with a memorandum to Parliament on the use of behavioural insights in policymaking (Ministry of Economic Affairs, 2014). The vast majority of interviewees set up shop somewhere between 2009 and 2015, triggered by the increasing popularity of behavioural insights at the time. During that period, 'behaviour change' was put on many policy agendas, behavioural scientists were hired and various behavioural projects, units and networks were set in motion. As these developments are relatively recent, most behavioural practices are not yet deeply institutionally embedded but instead are organised informally, from the bottom-up, with limited resources and limited connections to existing policy actors and routines.

Behaviour experts work in many places inside government. The 35 behaviour experts I interviewed represented 20 different agencies alone, and during my observations I have met behaviour experts from many other departments and organisations. Some work in the direct ministerial centre of government, while others are further removed from it and part of independent public agencies with regulatory, enforcement, knowledge distribution or implementation tasks. They are also involved in a wide range of policy areas, which can vary from food waste to tax compliance, to give just two examples. This diversity suggests that behavioural insights have already seeped into central government to a considerable degree.

Behaviour experts have diverging professional backgrounds. Half of the interviewees, 17 in total, have received actual academic training in the behavioural sciences, for instance in behavioural economics, (social) psychology, behavioural finance, communication sciences and criminology. The other 18 interviewees' original professional backgrounds are less straightforwardly connected to their current behavioural practice, with a predominance of social scientific backgrounds (for example, political science, law and public administration) but also backgrounds in the humanities (for example, philosophy) or beta-sciences (for example, chemical technology). These non-behaviourally trained interviewees tend to rely on a more basic level of behavioural scientific knowledge, mostly acquired through post-secondary training and self-study, reading popular works like *Nudge* (Thaler and Sunstein, 2008) and *Thinking, fast and slow* (Kahneman, 2011).

There is also diversity in the organisation of behavioural expertise. In some cases, there are specialised behavioural insights units that conform to the BIT model. I identified five BITs in Dutch central government, all comparatively small, with up to five members, and new, all being founded after 2008, with official names like 'BIT' and 'Team Behaviour Change', or informally calling themselves 'BITs'. Yet, the Dutch behavioural landscape includes other, smaller, more explorative kinds of specialised practices, such as knowledge networks (for example, an interdepartmental 'Behavioural Insights Network'), research programmes, and work groups. Also, several individual behavioural functions (for example, 'Behavioural Insights Advisors') have

been installed. In other cases, no specialised 'behaviour expert' functions are put in place but behavioural insights are instead integrated into existing organisational processes.

Table 2 summarises the background of the interviewed behaviour experts and their organisations. It gives a non-comprehensive snapshot of the dynamic behavioural landscape in Dutch central government from early 2017.

The article proceeds with an account of everyday behavioural policy practice. This account challenges the representation of behavioural expertise by its frontstage models. While behaviour experts indeed sometimes follow these models, namely when they act as direct and solo choice architects, overall their practices turn out to be more indirect, corresponding better with knowledge brokerage activities. The article highlights three of their key practices, which, although not mutually exclusive, reveal substantially diverging approaches: (1) choice architecture, in various forms, (2) analysis and (3) capacity building.

Table 2: Background characteristics of the interviewees

Organisational setting	9 ministries 6 executive agencies 5 regulative agencies
Organisational design	5 BITs 8 other exclusive designs 7 integrated designs
Starting point	15 organisations started since or after 2009 5 organisations started before 2009
Professional background experts	17 in behavioural sciences 13 in social sciences 2 in humanities 3 in beta-sciences

Choice architecture

Solo choice architecture

One key practice of behaviour experts is that of carrying out all sorts of concrete behaviourally-informed interventions in people's physical and informational environments, also known as 'choice architecture' (Thaler and Sunstein, 2008). Occasionally this practice mimics the frontstage models, namely when behaviour experts make these kinds of minor environmental readjustments autonomously, acting as *solo choice architects*. For example, they might try to steer policy subjects by highlighting certain individual choices, reframing them, providing social feedback, and so forth. Looking at the Dutch behaviour experts, perhaps the case illustration below comes closest to living up to the ideal type of choice architecture. The illustration describes a 'school canteen officer', working at the Netherlands Nutrition Centre Foundation, who helps to make school canteens healthier. She is a choice architect

optima forma, as she literally travels from choice architecture to choice architecture, canteen to canteen (notably also the first given example of choice architecture in *Nudge*), inspects them, and then suggests many small design-led changes to stimulate healthy behaviour.

Inspector Nudge

> I meet up with the school canteen officer on the empty parking lot just in front of the school, where she is about to start her visit. As one of the eight fulltime members of the 'School Canteen Brigade', she visits schools throughout the whole country to assess how healthy their school canteens are and consult school directors and canteen managers about what could be changed to help pupils make healthier food choices. She has been doing this work for three years now and has made over 200 visits. This morning she is visiting a small secondary school in Apeldoorn. After she receives a short tour through the school building from the canteen manager, we arrive in the, at that time, empty school canteen. Only three schoolboys are standing behind the canteen counter, preparing sandwiches for the coming lunch break. The canteen officer looks around for a while. She takes out her iPad and starts taking pictures of the canteen, the counter, the menu list with food prices, the plate of sandwiches, the bowl of fruit in front of it, and a tap water point next to the counter. We sit down at one of the tables. The canteen officer unfolds her map with folders, stuffed with information, tips and tricks to make school canteens healthier. Then she starts to give some of her observations to the manager. She suggests looking at various aspects, including the volume of healthy versus unhealthy products, the appearance of products, their availability and the power of peer influence (it matters when 'the coolest guy eats an apple'). Meanwhile, she mentions all sorts of little tricks: placing healthier products more prominently, making attractive offers for healthier products, presenting fruit in a nice fruit bowl or pre-cutting it into smaller pieces, emphasising healthy products in the menu list, and numerous other nudge-like techniques. During the lunch break the canteen manager immediately follows up on one of her suggestions: to make water more available. He asks the schoolboys behind the counter to fill some jugs with tap water and place them, with some cups, in front of the counter and promote the free water among the pupils. Not long after that, the first pupils have poured themselves a cup. Behaviour change, apparently, can be that simple.

Solo choice architecture is also practised by those behaviour experts who autonomously run small-scale field experiments. In applying the classical behavioural scientific method of the RCT, they closely follow the forerunning BIT, which has made RCTs the trademark of its approach (BIT, 2012). These RCT-oriented experts tend to have a strong background in economics or social psychology, and employ a modernist–empiricist scientific language (for example, talking about 'hypotheses' and 'treatment groups'). Their ambition is mainly to discover which policy interventions actually work. They believe that theoretical assumptions offer a poor basis for policymaking,

as the behaviour of policy targets is too complex to predict beforehand. That is why these experts argue that new interventions should be empirically tested, and field experiments are the best way to do so. One interviewee stated:

> It's more about the general vision that you'd want policymakers to have. That they don't start from assumptions made in advance, but that they have the courage, the guts to put into question what the behaviour would be like. And to find that out, you'll want to do experiments. That's where we're trying to pioneer a little.

Dutch behaviour experts have already run several trials on behaviourally-informed policy changes. For instance, the BIT at the Dutch Tax and Customs Administration, a typical follower of the RCT approach, managed to increase tax compliance with roughly 10 per cent in a field experiment, sending out letters to tax payers with minor changes appealing to Cialdini's (1984) social influence mechanisms (for example, scarcity, liking and reciprocity). However insightful and potentially effective RCTs can be, conducting them also tends to be difficult. They are highly technical processes that are time- and labour-intensive, costly and require a lot of coordination with relevant stakeholders in the field.

The hardships behind the RCT philosophy help to make sense of the observation that not all behaviour experts adhere to it. Some replace this costly, technical and therefore hardly feasible approach with a more *pragmatic* approach. They then develop behaviour change strategies based on 'educated guesses', grounded in field observations, existing scientific literature and common-sense reasoning. Their focus is not so much on the methods of behavioural science as it is on its theoretical contribution (for example, general knowledge of heuristics and biases). Instead of hard experimentally-tested evidence, they work with softer evidence and make 'estimations'. While the downside of this approach is that it negates part of the inductive, evidence-based spirit ingrained in behavioural science, a major advantage is that it allows for intervention at a much higher pace, with much more freedom. To illustrate: while interviewees only mentioned 11 distinct field experiments, many of which were unfinished, the amount of interventions that followed from a pragmatic approach was considerably higher. These interventions included default changes (for example, removing automatic maximum loaning options for student loaning), gamification (for example, turning the job-seeking process into a game with 'expedition work') and physical space readjustments (for example, designing for dialogue-stimulating layouts of company meetings). Most interventions were of an informational kind, embedded in letters, websites, mailings, conversations or text messages. To further illustrate the pragmatic approach: when I attended an introductory course in behavioural insights at one of the ministries, I met an intern at a regulatory agency who instead of rigorously testing her nudges with RCTs, simply suggests minor nudges for colleagues to implement in ongoing projects. Inspiration comes from frontrunners like BIT and she freely uses their examples. She also has developed a 29-page-long list of behavioural techniques from which to draw upon. Some of these techniques are perceived as basic and universally applicable nudges. Outgoing letters from judicial departments are especially 'nudgeable', as they tend to be written in a foggy language that does not help to achieve the desired behaviour

change. Thus, it seems that when approached pragmatically, solo choice architecture is a varied and adaptable policy toolkit.

Co- and contra-choice architecture

From the observations and interviews, it appears that there are at least two ways in which behaviour experts deviate from the above-mentioned solo choice architecture. First, rather than designing and carrying out interventions autonomously, they do so more often in joint effort with other parties. This collaborative nature is to some extent even the case for the canteen officer described earlier, since she does not actually redesign school canteens herself but rather consults those who do. Like her, many behaviour experts are at most *co*-choice architects, dependent on many others (including universities, consultants and colleagues) to get things done. Some interviewees even fully take on a project management role, solely handling matters of supervision and coordination while outsourcing practical and research-related tasks to others.

Second, behaviour experts do not always operate by designing their own choice architectures that directly affect policy targets. They also inspect and regulate the choice architectural designs of commercial businesses. This is particularly visible within the context of regulatory agencies, where behaviour experts investigate whether businesses are not using behavioural insights in ways that impair the decision-making of consumers. When these experts do indeed identify wrongful uses, they undertake actions to undo or reverse them. These kinds of 'counter nudging' (Alemanno and Sibony, 2015) practices can, for instance, entail that behaviour experts put businesses under pressure – sometimes threatening with sanctions – to install decision horizons, give more honest or transparent information, and remove harmful anchors and defaults. Concrete examples are the pressing of businesses in the travel industry to have no pre-checked boxes installed that make consumers purchase additional travel products by default, or urging 'Booking.com' to give more honest information about the availability of hotel rooms (Whitehead et al, 2017). In regulating commercial choice architectures, behaviour experts become *contra*-choice architects, protecting consumers against behaviourally-informed harm.

Choice architecture is thus underpinned both by different underlying roles (that is, solo, co- and contra choice architecture) and different views on what is useful evidence. Table 3 recaps how these views result in two contrasting approaches:
These different approaches closely align with the dichotomy of behaviour experts as choice architects versus knowledge brokers. The group of rigorous field experimenters who aim to make evidence-based policies clearly advocate a choice architecture perspective, which manifests itself in a rather exclusive appreciation of causal, 'what works' knowledge gained through RCTs. Also, to some extent their approach assumes unbounded time and resources, given the highly labour-intensive work that is required to run a single trial. However, there is also a group of behaviour experts who use behavioural insights more pragmatically: more 'behaviourally-informed' rather than 'behaviourally-tested' (Lourenço et al, 2016). Their approach resembles a knowledge brokerage perspective as it does not assume a hegemony of RCT-knowledge but instead draws on a plurality of softer sources of evidence, partly out of a recognition of limited time and resources. Both the co- and contra-choice architecture also tie well with this knowledge brokerage perspective because both roles seek to include,

address and intervene on the wider fields of governance of which behaviour experts are a part. As such, co- and contra-choice architecture substitute the ideal type of the solo choice architect role for a more distanced and meta-governing role, focused on building networks and working *with* and *through* policy actors.

Table 3: Different approaches towards choice architecture

	RCT-approach	*Pragmatic approach*
Focus	*Ex ante* policy evaluation	Policy advice and ad hoc intervention
Output	Some small-scale experiments	Many small (permanent) tweaks
Method	Behaviourally-tested (RCTs)	Behaviourally-informed (field research, literature study, common sense and professional assessment)

Analysis

The take-up of behavioural science in policymaking is often, as in the previous section, associated with the instrumentation and implementation stages. Yet this knowledge is also incorporated at earlier stages in the policymaking process. Policy formulation, for instance, is a stage that receives the attention of the studied behaviour experts as they believe that policymakers often design ill-informed policies based on incomplete analyses and misguided lines of reasoning. The choice of policy instruments can be particularly ad hoc. According to one interviewee, policymakers 'just do something', based on loose speculation, habits and gut feeling. To prevent such poorly informed policy design, a second key practice of behaviour experts is *analysis.* This practice seeks to unmask underlying assumptions about policy targets and helps to produce richer and more empirical underpinnings of policies.

As explained during interviews and in official documents, these analyses tend to be done in a structured way, following a series of steps. The analyses usually start with the selection of a complex policy case with a strong behavioural component. Behaviour experts then take time to get to the bottom of the underlying policy theory and all the behavioural factors that may play a role in the selected case. They ask fundamental questions that may look self-evident but are often neglected by policy designers. Usually this process starts with 'demarcating' the policy problem, precisely defining the problem, the target group, and the desired alternative behaviour. Then the analysis focuses on what drives policy targets to behave as they do: 'Who are they? What moves them? What drives them?' In each case, behaviour experts will search for the 'origins' of the problematic behaviour: the 'behaviour determining factors'. Dependent on the nature (for example, cognitive, motivational, environmental) of these determinants, behaviour experts accordingly assess which behavioural mechanisms, strategies and instruments are well-suited to steer policy targets in the preferred direction. Thus, behaviour analyses examine both the determinants of target behaviour as well as the potential mechanisms through which to change that behaviour. Analysis and intervention are tightly coupled:

> I think that we're mainly looking for problems or things that do not go well in our provision of services, which potentially have a behavioural component

> as the origin. So, we identify the origin…And then we start to think: is there something in there…that we can change or improve?

Sometimes, these analyses are done with the help of special tools. For instance, one respondent organises group sessions over two or more days to play a serious card game, called the 'Behaviour Test'. This game takes the group along the process of thoroughly analysing a selected policy problem. By playing different cards that consider the potential role of specific behavioural insights, the group gradually develops more insights into the underlying drivers of target behaviour and effective intervention strategies. Besides the 'Behaviour Test', behaviour experts use many other tools and games, such as BIT's (2014) 'EAST' model in the form of a deck with inspiration cards, or the 'Campaign Strategy Instrument', which provides step-by-step guidelines and worksheets to design behaviourally-aware public information campaigns. That these step-by-step analytical tools for groups are welcomed so readily by behaviour experts is not surprising since they follow the experts' own philosophy: if you want people to do something, make it easy, attractive, social and timely.

Behaviour experts draw on different research methods in their attempts to carefully 'reconstruct the decision-making of actors'. Some methods are more inductive, for instance: communication in the field, surveys, interviews, focus groups and observation. Others tend to be more deductive, such as: expert brainstorm sessions, literature study and logical reasoning. The behaviour experts that work strictly deductively seem to adopt an engineering attitude towards the nature of human behaviour and the extent to which it can be crafted. They view behaviour change of policy targets as a mechanical matter of 'finding out what makes them tick' and then 'pushing the right buttons'. It requires proper diagnosis of what drives the behaviour of policy targets, 'knowing their triggers', and on the basis of that deciding what behavioural mechanisms to exploit: which 'buttons to push'. These 'buttons' for behaviour change tend to be drawn from condensed theoretical models, for instance 'the three buttons of neurologist Victor Lamme' (fear, social and greed).

The key practice of analysis generally reflects the knowledge brokerage perspective on the uptake of behavioural expertise. First, the shift made from a focus on instrumentation and implementation to the earlier stage of policy formulation itself shows an awareness of the complexity of taking up new evidence in a policy-setting. This evidence is not as simply 'used' as a choice architecture perspective would assume. Instead, evidence is integrated into the policy process more comprehensively, not just in its end stages. Second, the way in which this integration is attempted, that is, through developing practical tools and guidelines, also reveals a recognition that behavioural insights are not straightforwardly applicable, but first must be set in line with the rhythm, logic and language of policymaking. Third, the consideration of a wide range of evidence sources during analyses (combining the inductive and deductive, the soft and hard, the commonsensical and academic) reflects a pluralistic view of evidence that also fits the knowledge brokerage perspective.

Capacity building

Behaviour experts are, as we have seen, not just direct choice architects who make small adjustments at micro-level, but they are also indirect choice architects who operate at the meso- and macro-levels. While analysis occurs at the meso-level, not

actually intervening but nevertheless strategising about possible interventions in particular cases, this section turns to a third key practice that occurs at the macro-level, much further removed from actual choice architecture: *capacity building*. This practice involves behaviour experts acting as ambassadors for the broader behavioural turn within government. They question the self-evident nature of traditional policymaking, which they deem to be rather 'odd', 'bizarre' and even 'outright scary'. To attract allies in their 'battle for better policy', they make their colleagues and managers more behaviourally-aware through a range of knowledge dissemination projects: they talk to people in their network, give presentations, write booklets and organise research programmes. The most intensive missionary work of behaviour experts is done in their roles as trainers. Several interviewees have developed educational modules on behaviourally-informed policy which they offer to their colleagues. The case illustration below illustrates this trainer role. It features a commander of a research unit at the Royal Netherlands Army, giving an introductory lecture on 'behavioural influence' to a group of special forces.

'Weapons of influence'

8:00 am sharp. The commander begins. The atmosphere is one of relaxed attention. The setting is pretty ordinary: military officers sitting behind little desks, wearing their green-brown camouflage outfits, drinking coffee, looking at a PowerPoint presentation. The commander starts by explaining how our brain works and how it shapes our decision-making. He introduces Kahneman's distinction between System I and System II. Then, all of a sudden, he throws his water bottle towards a soldier on the second row. In a split-second the soldier raises his hands to protect his face. 'So, did you have to think long before trying to catch it? Now that's System I thinking!', the commander enthusiastically explains. His lecture is filled with little exercises and intuitive examples from marketing and behavioural science. The underlying mechanisms of behaviour change, as he explains it, are not hard to grasp. He makes them understandable with the help of parsimonious theories, like Cialdini's model of the six mechanisms of social influence, one of the commander's all-time favourites.

11:00 am. Time for the soldiers to apply the lessons learned in their own context: suppose that they had arrived at a local village, and wanted to establish a relationship with the local leader in order to acquire valuable information. How could they engage this leader in a behaviourally-informed manner? The militaries are given ten minutes to think, after which many ideas come up. They could start off with small-talk or wear a casual outfit in order to win the leader's sympathy. They could emphasise his role as the leader to make him feel important. They could communicate their own high status as 'the chief' to trigger his authority bias. As the commander argues, these ideas may seem trivial but they are crucially important because 'in the end, a military operation is a communication process'. In two months these special forces will depart on their mission to Mali. They will do more talking than fighting. It is thus not their skills in armed combat that they will need most but their behavioural savviness: their 'weapons of influence'.

While the behavioural policy frontstage tends to assume a direct and self-executing role of behaviour experts, the case illustration above shows a different picture. It demonstrates a behaviour expert who works more indirectly, not actually applying behavioural science himself but educating others in doing so. Several other interviewees follow this approach: they train, *inter alia*, regulatory inspectors, call centre operators, school boards and municipal officials to become better choice architects. Those actors who function as 'street-level choice architects' are especially important to reach, as they stand relatively close to the policy targets they influence and can exercise more direct control over local choice architectures.

The key practice of capacity building aligns closely with a knowledge brokerage perspective. This manifests itself, first, in the awareness of behaviour experts that they are only small parts of widely fragmented governance structures, in which the power to invoke behaviour change is dispersed across many different policy actors. As such, they recognise the need to connect and reach out to all these actors and ensure that behavioural insights are properly introduced to them. Behavioural insights are to be anchored in the whole policy system by working *through* these actors. Moreover, behaviour experts recognise that this requires extensive translation work. That is why they spend much of their efforts on writing booklets and developing courses, which do not merely summarise the academic body of behavioural insights but actually 'transform' (Meyer, 2010) these insights into novel, 'brokered' knowledge that is attuned to policymakers' ways of thinking.

The vast majority of interviewed behaviour experts experienced most success in this area of capacity building. At the same time, it must be noted that these kinds of successes were also perceived to be easier to achieve. The fact that behaviour experts are able to elicit beginner's enthusiasm certainly does not mean that colleagues will actually follow up on the 'tough' methodology. An interviewee stated: 'It's super fun, until you have to do it for yourself.' A sole focus on capacity building may therefore not be sufficient for a government-wide embrace of behavioural insights. Behaviour experts may need to get closer to the action and take the lead where necessary. Therefore, a combination of different roles, taking the lead in complex projects but also encouraging others to work for themselves, might be the best shot at making the behavioural turn within government permanent.

Discussion and conclusion

While frontstage role models of behavioural insights lead the way in behavioural policymaking and help to further promote it, they may at the same time overlook its backstage complexities. That is, their underlying assumption that behavioural science can be straightforwardly transposed into a nudge-toolkit readily available to the policymaker, appears oversimplified. This article has, based on an ethnography of behaviour experts in Dutch central government, argued for a richer representation of behavioural policy practice. Table 4 captures this richness. What is important is that it shows that behaviour experts are – as opposed to direct solo choice architects – mostly co-, contra-, and even more indirect choice architects. In light of those roles and the networking, transferring, and translating activities they imply, behaviour experts are therefore better understood as knowledge brokers.

Adopting a knowledge brokerage perspective can help to understand the typical challenges behaviour experts face. As new kids on the block, a crucial challenge for

Table 4: Key practices of behaviour experts

	Choice architecture - - -				- - - Knowledge brokerage
Key practice	**Choice architecture**			Analysis	Capacity building
	Solo choice architecture	Co-choice architecture	Contra-choice architecture		
Activities	Making and evaluating interventions	Setting up and managing the making and evaluating of interventions	Regulating commercial choice architectures	Analysing policies and policy targets	Educating fellow bureaucrats in behavioural insights
Goal	Effectuating	Organising	Regulating	Understanding	Awareness-raising
Role	'Choice Architect'	'Network Node'	'Inspector'	'Analyst'	'Ambassador'
Scale level	Micro	Micro	Micro	Meso	Macro
Primary target	Citizens and businesses	Internal and external policy producers	Businesses	Citizens and businesses	Internal policy producers
Example	Redesigning school canteens to stimulate healthy eating	Bringing together a network of partners to run a field trial on anti-loitering	Pressuring commercial travel businesses to remove harmful pre-ticked boxes	Observing citizens in their kitchens to understand their waste sorting behaviour	Teaching military units to use behavioural insights in the field

them lies in becoming part of the established order. They have yet to prove their added value in a rationally bounded policy system that is not too susceptible to new influences. However, their precariousness is not only a result of their novelty but also of their identity as knowledge brokers, always operating 'at' and 'in between' organisational boundaries. Knowledge brokerage tends to be a relatively 'boundary-less' and 'invisible' professionalism, characterised by role conflict, role ambiguity, a lack of organisational recognition, and a lack of career pathways (Chew et al, 2013). These issues are likely to affect behaviour experts as well. In this light, it is constructive to point out some of the strategies that knowledge brokers employ to cope with their precarious situation, and even using it to their own advantage as a means towards greater flexibility and autonomy (Chew et al, 2013). Thus far, several of such strategies have been identified, including: relying on collective forums and peer support networks; relying on additional boundary-spanning actors; ensuring dual participation from both science and policy; ensuring dual accountability; creating 'boundary objects' that connect science and policy; facilitating co-production; and strengthening internal meta-governance and capacity building (Chew et al, 2013; Hoppe, 2010; Rouw, 2011). Learning about these kinds of strategies and translating them to the context of the behavioural policy practice may help behaviour experts in overcoming knowledge brokerage-related challenges.

To conclude, the knowledge brokerage perspective opens up new avenues for future research. It may be interesting to look further into the role of context when brokering behavioural science. As the article has shown, behaviour experts operate in a wide range of policy environments which differ greatly in terms of which actors are involved, what tasks are being executed, how responsibilities are divided, what kind of policy problems are being tackled, and how much familiarity there already is with behavioural policy approaches. These differences are likely to affect the role that is asked of behaviour experts. To give just one example, in relatively coherent fields of governance it may be possible for behaviour experts to concentrate on helping a small set of key policy actors devise practical applications. The focus then lies on transforming abstract ideas into concrete outputs. However, in the highly disjointed field of governance in which policymakers are merely meta-governing, it may be more necessary for behaviour experts to work on building stronger science–policy linkages and smoothing the flow of information to and between all relevant actors. The focus then lies more on the transferring aspects of knowledge brokerage. Research on how these kinds of contextual differences call for distinct ways of brokering behavioural science seems worthwhile. Furthermore, it may be interesting to shed light on the dynamics between knowledge brokering and institutional innovation more generally. We have seen that the attempt to set in motion a deep institutional change, in this case the building of the Dutch behavioural state, has materialised into a specialised group of public professionals whose practices tie in perfectly with typical knowledge brokerage work. This leads to further questions about how important knowledge brokering is for institution-building and whether other newly emerging professions in governments are 'knowledge brokers in disguise' too. Despite knowledge brokering being a naturally less visible, backstage, or perhaps more accurately, 'between-the-stage' phenomenon, it may well be a core driver of institutional change.

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