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Co-designing behavioural public policy: lessons from the field about how to ‘nudge plus’

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Abstract

Background

Behavioural public policies, known as nudges, suffer from lack of citizen consent and involvement, which has led to an argument for more reflective nudges, known as ‘nudge plus’.

Aims and objectives

How can more citizen reflection be introduced in a way that is not itself top-down and paternalist in spite of good intentions? How might these nudge pluses develop on the ground?

Methods

This paper reports a mixed methods case study.

Findings

In the case study, there was an intervention that started off as a top-down nudge, using a randomised controlled trial. The nudge then evolved into a bottom-up initiative with citizen input aided by a design-lab approach.

Discussion

One way to address tensions between top-down and bottom-up approaches is to let in the messiness and loss of direct control implied in a design lab, whereby ‘nudge pluses’ might evolve naturally and without expert direction. The success of the eventual initiative points the way to more design-based nudge plus interventions.

Conclusion

Nudge pluses may emerge naturally as a result of the evolutionary co-design process. There is potential for replication, with cross-fertilization between different traditions by introducing behaviour change policies with a design-based approach.

Keywords: behavioural public policy; nudge; design; citizen participation

Word count: 8,783

Key messages

- Expert-led behaviour change can be paternalistic. Participatory alternatives have been small-scale and costly.
- Nudge plus is trans-disciplinary; citizen reflection and technical expertise shape behavioural public policies.
- Design principles complement nudge plus through multiple forms of expertise, and iterative learning-by-doing.
- Greater cross over is possible than exists between behaviour change and design labs in designing behavioural policy.

Governments around the world have been successful in designing and introducing behaviour change policies, known as nudges, as part of their toolkit for addressing public problems. Nudges are behaviourally-focused initiatives that steer people to behave in pro-social ways, such as getting people to be healthier, or reducing their environmental footprints, as well as taking an active part in various civic activities like voting and volunteering, while also giving them the choice. Nudges have become popular as a way to help shift more entrenched individual behaviours that governments and others believe are detrimental to both individuals and society at large, such as poor diet choices or savings behaviour. Nudges are particularly useful where individuals are likely to resist educational initiatives or not comply with other measures. They complement other policy levers, such as subsidies, taxes, or legislation, and are distinct from them. Nudges might include, for example, reminding people to pay fines or taxes, putting healthier food options in the prime spot on a menu, or offering a carbon offset option when making purchases. The term nudges is not just a neat characterisation of the style of approach to behaviour change, but also a mnemonic summarising its principles. For example, offer people non-financial incentives to change, or structure and simplify complex sets of choices so that the 'right' choice is the most straightforward, easiest or most obvious one for people to make.

Such interventions have been shown to work in robust evaluations, usually randomised controlled trials, across a variety of fields, delivering significant improvements to public policy outcomes (Loewenstein and Chater 2017; Benartzi et al. 2017). One possible conclusion of such a research programme might be that more is better, and for more nudges to be introduced by a range of public-orientated bodies. One key problem in expanding the use of nudges is that it may be another form of paternalism of which critics are rightly suspicious (Jones, Pykett, and Whitehead 2013; Sugden 2018), because political or scientific elites are in charge of deciding which behaviours are desirable. Therefore, instead of putting faith in expert

judgements about how people should act, it would be preferable to take account of citizen views, and work in partnership with them when designing nudges.

One proposed way to develop more participatory nudges is to incorporate initiatives for citizen dialogue and deliberation, known as ‘thinks’ (John et al. 2019). Thinks are participatory initiatives whereby citizens and others discuss policy issues and policy proposals in an open, transparent and reflexive way. For example, citizen assemblies discussing how to address climate change. Where nudges and thinks are consciously combined, the intervention can be both a think and a nudge at the same time, recently coined as a ‘nudge plus’. The claim is that such a citizen-driven approach can address the paternalism of nudges head on and challenge scientific or technical expert-led policy-making (John and Stoker 2019). The re-conceptualisation provided by nudge plus would suggest that the use of a policy tool that involves citizens working alongside other experts and engaging with scientific evidence in a policy design.

But how do public agencies deliver nudge pluses without themselves replicating the very paternalism they seek to confront? By introducing behaviour change policies bottom-up there could be an implied paternalism even when trying to be citizen-led. This challenge is at the core of how best to deliver democratic innovations more generally without technical or scientific experts dominating the intervention and undermining the very culture and citizen-led outcomes they seek to produce. Moreover, loosening control over the intervention process may be more in tune with common realities in policy and practice, which is likely to be highly incremental and messy (Goss 2001). Policy design rarely starts with a blank sheet, so effective forms of nudge plus may be those that can work with the grain of what already exists. The design of such interventions also need to take into account the different elements to expertise (Rycroft-Malone et al. 2004; Ives, Damery, and Redwod 2013), including scientific expertise (Esterling 2009), and other forms of expertise, such as from citizens and policy-makers’ direct

experiences. Achieving all of these ends is challenging but need to be addressed in any intervention. However, the realities of this emerging field are often under-documented as most studies merely report design and findings rather than the process that led up to the research plan.

This paper examines whether nudge plus can be implemented in such a way that acknowledges—even embraces—the messiness of much policy and administration on the ground, avoids domination by technical and scientific experts, and brings together multiple forms of knowledge, while at the same time as developing behavioural public policies. The paper begins with a short section on what are nudges and how they have been used, contrasts them to thinks, and defines nudge plus. We then introduce the case study of the evolution of behavioural policies in a U.K. public housing organisation, documenting how a design approach was used to adapt a top-down nudge into a nudge plus bringing together science and citizens into policy development. We argue that this exemplifies a trans-disciplinary, practice-led approach in policy design, and conclude that such an approach can be embedded into locally implemented behavioural interventions.

Origins of nudge plus

Nudges are low cost, usually information-based, signals that prompt citizens to act in ways that retain their autonomy. Nudges were developed by Thaler and Sunstein (2009) in their eponymous book, which drew on twenty-five years of research in behavioural economics that sought to ground human behaviour in psychological processes that modify simple rational-cost calculations. Their definition, much cited, is: “nudge [...] is any aspect of the choice architecture that alters people's behavior [...] without forbidding any options or significantly changing their economic incentives. To count as a mere nudge, the intervention must be easy

and cheap to avoid. Nudges are not mandates. Putting fruit at eye level counts as a nudge. Banning junk food does not.” (Thaler and Sunstein 2009, 6).

Nudges were popularised by the UK Behavioural Insights Team (BIT) from 2010 (Halpern 2016; Halpern and Sanders 2016); then they diffused across the world. They rely on low-cost signals that encourage citizens to act in socially desirable ways, usually not against their self-interest, and in ways that are thought to preserve their autonomy as citizens may choose not to comply (Thaler and Sunstein 2009, 6). The idea is that people’s capacity to handle complex decision-making is limited as well as biased—they are cognitively flawed and cognitive misers. Therefore, nudges are designed which allow for these limits and biases. Examples of nudges include pension defaults, organ donation forced choices, commitment devices for diet, acts of reciprocity, and conveying social norms. The pension default is one of the most commonly known interventions and involves a new employee being automatically enrolled into a pension scheme to help them start saving which has been adopted across the world (Thaler and Benartzi 2004). The pension default uses people’s tendency to inertia as they do not want to invest time and effort in exploring options and changing the default. The institutional design ensures that it is easier to stay opted-in rather than to opt out.

The question is how this new tool of government beds down as a standard practice in public administration. Advocacy by nudge units, such as BIT, has played a role in garnering interest from agencies to use nudges in the delivery of public policies. In many ways this has been a positive development as it has softened the technical nature of the interventions, which need to be presented to reference groups in ways that they feel they own. This pattern of light-touch diffusion has been the pattern of adoption of behavioural insights in the UK and elsewhere. Nonetheless, even with these more reflexive approaches in place, the basic model of introduction is still one of top-down authorisation and agencies introducing tests of these policies without much engagement of citizens. They use technical and scientific experts, such

as behavioural scientists and economists, to develop their public policies which are authorized by permanent bureaucrats with usually the elected politicians just ‘signing off’ the intervention (Halpern 2016), which ensures consistency with representative and party-led forms of democracy. Partly this is because the professionals and technical experts are pre-occupied with testing these interventions with trials, which inevitably focus on data collection and following robust procedures. Despite a small number of cases of participatory randomized controlled trials (RCTs) (Katz et al. 2011), participatory trials are rare. There are therefore gaps in how this policy tool has developed, in that it has not so far seen much participation by citizens.

Another gap is in explicit processes for how nudges are developed when they have not worked. In many ways, those working in the nudge field have been exemplary in their approach, for example taking care to document where nudges have not worked, and through the publication of null results (Sunstein 2017). However, there has not been as much discussion of strategies for developing new iterations of interventions when nudges have failed.

From think to nudge plus

In the top-down approach to designing nudges, one of the arguments in favour of technical experts, such as behavioural scientists, being in charge has been premised on the cognitive miser claim. That is, understanding how people use heuristics in a cognitively miserly way means we also understand that people do not have full access to their own motivations for behaviours, neither can they be relied on to know what might be good for them, hence the accusations of paternalism. Therefore, there would be little point in consulting with them to see what might be effective for behaviour change policies. Whereas, in a ‘bottom up’ approach, there would be a participatory style of design, with citizen-led ideas for policies, using ‘thinks’, based on the idea that their lived experience informed the design.

Some authors have developed ‘thinks’ as an alternative way to achieve behaviour change, rather than nudges. Thinks are broadly defined as deliberative interventions or democratic innovations (Smith 2009), where citizens can get involved in making decisions, such as through citizens’ juries, citizens’ assemblies, referenda, deliberative polling, participatory budgeting, and other forms where people are engaged in thinking and arguing about policy choices. The underpinning idea is that people are reflective thinkers who can deliberate on issues in a reasoned way, handling volumes of information, and weighing up complex choices to arrive at decisions. Thinks can be adapted to deal with large behaviour change issues (John et al. 2019).

There has, however, been a problem with proposed ‘think’ alternatives to nudge. The problem is that thinks are hard and costly to implement and do not lead to as much positive behaviour changes as the nudges. It is hard scaling up thinks as an alternative form of behaviour change. As with other forms of citizen participation, there are many challenges to participant recruitment. At the same time, the vogue in policy and practice for citizen participation has proceeded (Richardson, Durose and Perry 2019). Therefore, one under-recognised gap in the debate is that between the think literature and empirical reality. In addition, people are understood to be able use a mix of more limited and more expansive cognitive strategies (John and Stoker 2019).

In response to the limitations of stand-alone nudges, and thinks, John and Stoker (2019) have advocated a partial merging for the two approaches in ‘nudge plus’. In nudge plus, a nudge can incorporate an element of think as a form of reflective nudge. Citizen reasoning and reflexivity could then be engaged at the same time as the psychological prompt or default, such as encouraging people to think about adopting a commitment device. John and Stoker reject the narrow idea of humans as cognitively flawed and cognitive misers, and advocate for tools that allow for people’s tactical use of a range of cognitive strategies. Nudge plus is critical of

the dual systems approach common in behavioural science with a strict divide between slow and fast thinking and where these processes are interlinked and encompass each other. The argument is that tactical mixed use of both kinds of reasoning is more practical and closer to what citizens do in everyday life: using low-cost strategies to go with their gut feelings but in a way that is self-aware. Nudge plus could be used for social problem-solving, in a model of a self-guiding society (Lindblom 1990), with citizens themselves being part of the expertise that shapes behavioural public policies. Such an analysis rejects top-down approaches to policy development, advocating for joint work between policy officials and citizens. Nudge plus seeks to address the paternalism that is implied in many nudges, especially when nudges involve manipulation and deception. By including the plus, nudges are much more transparent where the citizens can reflect on the meaning and purpose of the nudge and its significance for their own choices and how they relate to the choices of other citizens.

Examples include encouraging people to engage in slow thinking by using cognitive behaviour therapy (CBT) before making employment choices (Heller et al. 2017) or encouraging self-reflection exercises for better diet and exercise regimes (Jackson et al. 2011). It may also require retooling existing nudges so their reflective component is enhanced, such as instruments that encourage respondent to think about their intentions before doing a major task (Gollwitzer and Sheeran 2006). Similarly, research on commitment devices could focus on the first stage of agreeing to be bound by the device (Bryan, Karlan, and Nelson 2010). A nudge plus can be delivered before the nudge or during it. The citizen is seen as on a journey with the policy-maker in a sustained form of behaviour change with nudges and pluses following each other over time.

Designing nudge plus

The question is how to deliver nudge plus by engaging many different forms of expertise in the design of behavioural public policies and how to make Lindblom's self-guiding model a reality? As well, how to design nudge plus on the ground, particularly where nudges have not been effective. The argument in this paper is that nudge pluses might need to be implemented in more decentralised contexts whereby policy designers, scientists, and citizens particulate in the design of the policy.

There has been considerable work on design labs (McGann, Blomkamp, and Lewis 2018) where by co-design is privileged. Developing nudge plus behavioural policies is a design challenge. A design approach would suggest a blend of expertise to design the policies themselves (Langley, Wolstenholme, and Cooke 2018). They would blend 'top-down' technical and scientific expertise as well as 'bottom up' experiential expertise, such as people reflecting on their own direct, lived experiences. These multiple forms of expertise include but are not limited to: technical specialist knowledge; scientific research evidence; lived experiences together with experiential expertise. They can all contribute to policy design.

These forms of expertise have also been described (Rycroft-Malone et al. 2004) as forms of evidence, which include traditional forms of evidence such as research, but the definition of evidence is broadened to include the experiences of people working in professions (such as doctors), as well as citizen experiences. Distinctions drawn between the external and scientific, and the internal and intuitive (Rycroft-Malone et al. 2004), parallel the distinction made here between top-down and bottom up.

These different forms of evidence or expertise are often associated with particular groups of policy actors. For example, academics are seen to bring scientific research or theories. Professionally trained technical specialists, such as engineers, economists, doctors or lawyers, are seen to be the technical or professional experts. Citizens are often seen as bringing

lived experience. While this is often the reality, it is not always the case that sets of expertise are the exclusive property of those groups (Durose and Richardson 2016). Not all scientific expertise comes from professional scientists for example; citizens are not the only ones with lived experiences.

There are risks associated with inappropriate use of different groups' expertise, for example where the boundary between researchers and respondents gets blurred in community-based research (Richardson 2014). Different inputs should be used appropriately, based on the knowledge groups can best offer, for example citizens' knowledge of what is best for them and their peers (Ives, Damery, and Redwod 2013). Whichever group brings whatever forms of expertise, the point is that design approaches emphasise use of multiple forms, in an iterative and reflexive way (Langley, Wolstenholme, and Cooke 2018).

Our argument in this paper is that such design procedures can be harnessed to recalibrate behavioural interventions, using the science of behaviour change but in such a way so that there is flexibility and learning-by-doing by those involved. But thus far nudge plus has not been explicitly linked to co-design. We address this gap by presenting empirical material from a case study. The following section outlines the methodology used, describes the process, activities and who was involved, before we offer learning from the field.

Methodology

The research design was a mixed methods case study, selected to test and refine theory. Single cases are a crucial part of collective process of knowledge accumulation (Flyvbjerg 2006). As one scholar has advocated: "the case study may be central to scientific development via generalization ... formal generalization is overvalued as a source of scientific development, whereas "the force of example" is underestimated" (Flyvbjerg 2006, 228). Case studies have

been rediscovered in political science so they fit better with an approach based on hypothesis testing and evaluating causal mechanisms (Gerring 2004; Crasnow 2012).

This case was of one set of policy development activities by a housing organisation, one of the largest public housing providers in one region of the UK. It owned and managed over 23,000 properties of below-market and market rent housing, with many residents receiving public subsidy to pay for their housing costs. The set of policy activities for the case was conducted by the organisation between 2012 and 2017, and focused on policies for involving residents in organisational decision-making, as well as in volunteering and community activity. The work was part of strategic development of behavioural policies by the organisation, such as encouraging greater housing and employment mobility.

The case study research design was developed specifically to address the research question of this paper about the development of nudge into nudge plus. Our research questions were generated by the theoretical development of the nudge plus conceptual framework. Once the research question had been established, the authors moved to exploring suitable data sources to address the research question. There existed at the time only a limited number of empirical examples of such processes of development of nudge to nudge plus. A standard qualitative purposive sampling approach was used to select the case, from a number of possible nudges with which the authors had some familiarity. The authors had had close contact with several policy and practice delivery organisations, allowing for some in-depth observation of processes. The case was of an attempt at policy re-design, in a context of existing long-standing policies. Therefore, it is an example of an empirically messy context. The main organisation involved represented a decentralised administrative unit, engaged in designing and delivering policies, which directly affected around 45,000 residents. The organisation had resources and authority to develop and implement relevant policies to its client group, within limits, but

relatively free from regulation. Selecting a decentralised administrative unit is one of the conditions that is conducive to a blended, citizen-engaged approach to behavioural policy.

Subsequent to the case selection, a standard process for conducting the qualitative study was taken, selecting and collating a range of suitable available data sources, allowing for analysis of process and change over time. The six sources were, first, primary data from three publicly available policy discussion documents on behavioural policy development, produced by the organisation between 2014 and 2017 (labelled D1 to D3). Second, primary data from an RCT conducted in 2014, which tested ways to recruit citizen social scientists, using ‘nudge’ theories. A third source was primary qualitative data from a small-N study conducted by citizen social scientists, of other residents, asking about perceptions of community, citizen engagement and volunteering. The fourth source was secondary data reporting on qualitative workshops and focus groups with actively involved residents, asking about their experiences of resident involvement in the organisation. The fifth source was secondary data reporting on a large-scale behavioural survey by the organisation of over 1,300 of their residents, asking about resident engagement and volunteering. The sixth source was observational data from the authors, recorded in diary entries and personal email correspondence. After the authors collated this data, we subjected the data to analysis through a number of questions: what were the stages in the process; what forms of expertise were represented at each stage and how these differed; how could the interventions in each stage be classified.

Next, a narrative chronology of activities in the different phases is presented, describing who and what types of expertise were involved at each point in the different activities. The paper then reflects on the findings from the process.

Design lab evolution

The design lab or partnership evolved over four phases, summarised in Figure 1, which were: frustration with conventional ‘thinks; technical expert-led approach to behavioural policy design; failure of the technical expert-led approach; evolution of the design lab. In summary, the phases show a shift in the way that behavioural policies were designed. The change in approach results in a shift from a nudge to nudge plus, so the policy reflects the change in emphasise to incorporate reflection and citizen inputs. The key shift we describe below was away from a top-down ‘big bang’ approach, with an emphasis on technical or scientific expertise. Instead, a shift towards a form of policy design that was more evolutionary and used multiple forms of expertise, as well as being developed across several iterations, in a reflexive process.

FIGURE 1 HERE

Phase 1: frustration with conventional ‘thinks’

The housing organisation was formed in 2006 from the merger of two organisations set up by charities in the 1960s. Their existing mechanisms for involving residents in organisational decision-making were continued in the merged organisation. Before 2012, the organisation had, privately, been frustrated with low levels of user participation, and concerned about the relatively homogenous profile of those who got involved, their lack of descriptive representativeness, as well as a lack of effectiveness of participation in producing different policy outcomes (D1). However, there was no explicit reflections on these failures. Even at their peak, tenants’ and residents’ associations represented around 2% of residents. Less than one per cent of the resident population had been actively involved with the organisation, the majority of whom were demographically unrepresentative of other residents. Outcomes of

engagement for policy or services were: “minimal, especially at a strategic level”, and resident representatives had sometimes “rubber stamp[ed] decisions [...] already taken” (D3).

Phase 2 – technical expert-led approach to behavioural policy design

In April 2012, the senior leadership and chief executive of the organisation launched a major new behavioural policy initiative: “our manifesto for the future of social housing” (D1), which re-framed its primary outcomes and proposed new outcome metrics with output targets, e.g. people into employment. Work in phase 2 represented a high-water mark for the technical-expert led approach to behavioural policies.

Implementing the manifesto

Behavioural initiatives were initiated by professionals. One project used randomised testing for a behavioural intervention with older people, with keyworkers to improve well-being outcomes (source six). The organisation also set up a strategic advisory group of external technical and professional experts, with academics from universities across the UK, housing policy advisors, and one resident representative. Separately, resident representatives had been consulted, but in this phase, the primary emphasis was on using scientific evidence, other specialist knowledge (e.g. housing financing models), and following activities initiated, designed and led by professionals working in the organisation.

Initiation of the volunteering nudge RCT

In 2013, contact was made with the authors by researchers working for the organisation, through an academic seminar, and one of the academic nudge-RCT team was subsequently invited to join the strategic advisory group. Through this relationship the volunteering nudge RCT (source two) was formulated over 2013 by the academic team together with the

researchers in the organisation. Forms of expertise used were academic research; the academic RCT team provided specialist expertise on nudges and also conducting field trials. The other relevant activity was a piece of survey research on resident satisfaction, commissioned by the organisation from a commercial survey firm.

Completion of technical expert-led activities and the RCT

The first half of 2014 was taken up with the completion of the technical-expert led activities. In April 2014, the survey research on resident satisfaction (D1) was published, which found that conventional ‘thinks’ held little salience for around two fifths of residents; when asked if they were satisfied with opportunities to participate in the management of services, 38% had no opinion either way, compared to only 8% who had no opinion on satisfaction with the repairs service. The publication was written by research staff in the organisation, using survey data from residents, but with no significant involvement of residents in the research, other than as respondents. Scientific and technical experts – specifically the organisation’s research and policy team – conducted the interpretation of the data and produced the policy document.

The volunteering nudge RCT took place from May to July 2014, conducted by the academic team, working with the organisation’s researchers. Although residents were featured in one of the interventions, and gave their consent to be featured, there was very little resident involvement in the development, operation, or interpretation of the results of the RCT. The RCT was technical and expert-led in two senses: the intervention was designed by academic specialists; and the nudge used endorsements from two different kinds of experts: scientists; and citizens.

The nudge was designed to persuade residents to engage in civic participation, and tested different types of requests of residents to engage (source two). Specifically, testing the idea that requests are more attractive when they are endorsed by sources that people find

attractive (McGuire 1985), credible and trustworthy, and possess expertise (Hovland and Janis 1963). Endorsements are a classic nudge as the credibility of a messenger becomes especially important in a situation where the person does not have capacity for in-depth processing of substantive content, or perhaps they do not care sufficiently about the issue, or where there are ambiguous or competing messages. The messenger's credibility and expertise is used as a heuristic for judging the message.

A large-scale field trial was run with around 8,200 residents of the housing organisation (source two). Those residents were randomly allocated to three groups: either one of two nudge treatment groups; or to a control group. Each group was sent an email asking them to volunteer. The two treatments had this request endorsed by either named professional scientists who advocated volunteering, or by named citizens (peers) who supported volunteering. The control group email received the request but no endorsement.

Phase 3 – failure of the technical expert-led approach

The results of the resident satisfaction research showed residents' apathy towards traditional participation opportunities. Coupled with the private frustrations with previous resident involvement levels and outcomes, questions were already being raised for the organisation about how to create effective ways to get resident inputs to policy design. The researchers had come to believe that a conventional think strategy would be unlikely to work.

At the same time, the standard nudge was also showing its limits. By the early summer, the lack of results from the RCT was apparent to the research team, who were conducting the analysis of the results. A number of outcome measures were used, the first being simply whether people opened their emails. Significantly more people in the treatment groups (47.8% and 46.7%) opened their emails than the control group (40.2%). Using a z test, the 7.6 percentage point between the first endorsement treatment group and the control group was

statistically significant at the 0.01 level ($z=5.63$, $p=0$, two tailed), as was the second treatment ($z=4.82$, $p=0$, two tailed).

However, turning the opening of an email into further action was much more challenging. The next outcome measure was the proportions of people that clicked on a link in the email to find out more, then after that, the numbers of signups to volunteer. Both of these outcome measures saw severe drop offs in numbers, with between 2.5% and 2.9% of click throughs, and non-significant statistical differences between the three groups. Differences in proportions of people signing up to volunteer were non-significant at the 0.05 level, ranged between 1.1 and 1.5%. Actual volunteering rates were too low to make meaningful statistical comparisons. 25 people signed up, of whom 13 completed the citizen science research study (source three). Against the volunteering outcome measures, the nudge was not a success. The researchers could not resolve what a more effective set of behavioural policies would look like.

Phase 4 – evolution of the design lab

From autumn of 2014, there was an evolution away from the technical-led approach to a more co-design or design lab approach. It is core to the argument of the paper that the approach in the case study changed over time, partly in response to the initial failed RCT, to something that more resembled a design lab or partnership. Its evolution reflects the adaptive nature of a design approach.

Development of design lab

Subsequent to the failed nudge, there was a re-examination by the organisation of the approach to behavioural policy. The co-design was asynchronous (John et al. 2019, chapter 10), that is, the ‘dialogue’ between the forms of expertise did not all take place through all the stakeholders being in the same place at the same time. Specific elements of the design lab used familiar co-

design practices, e.g. interactive workshop methods, and creative techniques (Langley, Wolstenholme, and Cooke 2018). However, much of the iterative development of ideas took place through different activities across multiple forums. The research and policy team within the organisation took the lead in curating the design process, and mediating between the multiple sources.

A number of activities in the design lab phase took place, which brought multiple forms of expertise into the creation of behaviour policy. In summary: citizen social science (CSS) research (source three); workshops and focus groups with residents (source four); and a quantitative survey of residents on resident involvement (source five). In line with a design approach, there was regular reflection by the organisation throughout this period, such as published in policy documents. Sources three and four included reflection by participants in the process. These activities are now described in more detail.

Taking place between August 2014 and spring 2015, the citizen social science study blended scientific expertise with citizen expertise. Despite the failure of the RCT to recruit large numbers of volunteers, 13 citizen social scientists were recruited, who then participated in a qualitative study, collecting data from 50 other residents about perceptions of community and volunteering. The CSS project was facilitated by the academic team, who led the recruitment and training of citizen scientists, and designed the research instruments. The citizen scientists collected data on questions which had been designed by the researchers. Each citizen scientist then recruited a snowball sample of respondents from neighbours and acquaintances. After the data collection, the citizen scientists, academics and the organisation's professional researchers generated the coding framework for thematic analysis, during a team meeting in October 2014. Using participatory techniques (described in detail in Richardson 2016), the group blind coded a sample of data, and reconciled the coding through discussion into a coding framework, then used by the professional researchers. The main findings was that those

encouraging residents to engage needed to make the salience and benefit of engagement much clearer. Enhanced salience and incentives are nudges, so this also reinforced the idea of nudge.

Reflexive design thinking

In June 2015, the organisation published document D2, reflecting on their learning from experiences over 20 years, summarising some of the problems it had experienced in phase 1, up to 2012. It built on the reflections from the 2014 report on resident satisfaction (D1), offering an open reflection on their problems with resident involvement (the old ‘thinks’). Iterative reflexive learning from experience is a key feature of design thinking. D2 used expertise drawn from multiple sources: a descriptive policy overview; internal data; vignette examples of involvement; analysis of the organisation’s Twitter data; survey data; and academic references and conceptual frameworks. D2 was also a reflection by the senior leadership of the organisation’s lived experience of resident involvement.

Acceleration of design lab towards nudge plus

After the publication of the reflexive think piece in June 2015, there was an acceleration of the design lab activities. The workshops and focus groups with residents (source four) took place in the second half of 2015, conducted by the organisation, who invited residents that were already actively involved as representatives to attend one of three discussion events. Each event asked participants to reflect on why they had become involved initially, and how they perceived their roles. The workshops were described by the organisation as “asking the experts” (D3), and explicitly brought in experiences of involved residents for the first time. Some conclusions were that residents’ expertise needed to be used in ways that was more specific and appropriate to the decision.

Source five was the survey of residents on the topic of resident involvement in the latter part of 2015, initiated by the research department of the organisation, and conducted by their front-line staff. The content of the questions also included suggestions from the citizen science work. The data sources were used iteratively, e.g. respondents in the CSS study (source three) were asked what questions they would like to ask other residents, answers included: “Are you involved in any local work to improve your community?”; “How connected are you to your neighbours?”; “Maybe ask if they feel part of their community.”. These were topics included in the survey. The organisation collected responses by first sending an email to residents with a link to the questionnaire, which received 527 responses. It then closed down its head office for the day, and in a relatively unusual move, sent staff across departments out to interview residents in their homes. By the end of the day, another 855 residents had completed the questionnaire; a total of 1,382 responses (D3).

The survey asked about a local decision that had a significant impact on people’s lives, then asked whether there was anything that they would have changed about that decision. Over half agreed, but the majority (88%) had not taken part in the initial decision. The conclusion drawn by the organisation was that this suggested some latent demand for participation if done in more effective ways, and reinforced moving towards nudge policies. Also, in the latter part of 2015, the academic-RCT team, including the organisation’s researcher, prepared for a conference event in November 2015 to discuss its research findings. Academics presented an early version of nudge plus. These ideas were taken back to the organisation’s senior leadership by the researcher (source six).

Crystallisation of nudge plus

Between late 2015 and summer 2016, the nudge plus policy crystallised through dialogue on the prototype ideas. A key part of the design process was the discussions of the proposals with

its own staff, during staff meetings, and with professionals working in other housing organisations, i.e. their peers in the sector, through a workshop with over 20 other housing organisations (D3). By August 2016, the design lab had matured sufficiently to put forward the nudge plus policy as a “co-designed future” (D3), citing multiple forms of expertise (sources two to five), and describing the process of dialogue. Proposals advocated for further use of multiple forms of expertise in designing their policies, with a commitment that residents should be involved in decision-making as experts. Principles for involvement were published that had been co-designed with residents (D3). Their nudge plus strategy was described:

we need to do more than just nudge people if we want to change their behaviour. We need nudge plus something else. Nudge can generate interest but to translate this into action we need to employ think tactics [...]to think and deliberate over issues [...] before we can nudge them

The organisation then put forward plans to test specific nudge plus interventions (D3), using the EAST method, which was developed in 2012 by the UK’s Behavioural Insights Team. EAST is a mnemonic that argues nudges should be easy, attractive, social and timely. In the original EAST method, a relatively standard nudge approach is used. However, the case study’s own version of EAST incorporated nudge plus ideas of a blend of behavioural change strategies based on a mix of cognitive strategies, including some reflective thinking. The nudge plus projects included, for example under ‘easy’ publicising the support available for residents to get funding for community projects. Under ‘attractive’, a proposal to promote residents getting engaged using an online self-serve portal on the organisation’s website, which was also going to be tested using a field trial: “A/B testing” (D3).

In describing the four phases in the case, we have detailed which groups, and what forms of expertise were present in each of the phases and specific activities. Having now

documented how a nudge plus policy evolved through a design lab approach, we now discuss some of the lessons from the case.

Discussion: lessons from the field

The lesson of a failed nudge illustrates the limits of top-down approaches to interventions premised on citizens as cognitive misers. The critique allowed us to follow the case into more uncharted territory, as the design evolved, using a wide range of forms of expertise to develop behavioural public policy and a specific set of nudge pluses. In context, the case we study is a relatively unusual example of policy-makers reflexively challenging their own previous attempts at participation, but in a way that illustrates the theory behind public interventions and the associated social science that supports it. The value of the case study is in seeing how processes of design are used in an iterative way, following the initial failure, showing potential of the underlying theory as a guide for policy-makers.

Alongside the limits of technical expertise alone to address complex issues, there was also scrutiny of the limits of residents' lived experience. The nudge plus design brought together multiple forms of expertise in a trans-disciplinary way. Policy design processes in the case remained led by expertise, but the definition of expert shifted to include a wider and more diverse set of actors. Multiple forms of knowledge were used asynchronously to develop a nudge plus approach, including experiential expertise of both residents and policy-makers, combined with research evidence. No one single type of knowledge was used in isolation. Findings from the different sources were broadly in line with each other, and used to develop the proposals iteratively and using a reflexive method.

The initial RCT was a partnership in terms of design and analysis, with one of the case study organisation's project team as a researcher. In the early stages, the project was not set out as a design partnership or lab. Instead, the aim was to test a standard (if customised) nudge.

A nudge plus approach emerged through engagement with the team and a practice-driven approach. The working practices on this project evolved from a relatively straightforward arrangement between the organisation and universities to test a simple nudge, to a design partnership led by the organisation, including additional substantial research by the organisation, e.g. the behavioural survey, workshops and discussion documents, as well as reflections of experience by professionals, and citizens, and science conducted by citizens. This represents work across disciplines, actors and sectors, led by a policy and practice organisation. Our argument is that our project evolved into a design partnership from the exigencies of implementing a nudge and working out how to design a more integrative form of behaviour change that incorporated more reflection.

Design partnerships are becoming a common form of evaluation internationally (Bason 2014; Durose and Richardson 2016). Design approaches to policy link research with policy and practice, focusing on rapid testing of prototype designs, learning-by-doing, over multiple iterations, using feedback and evaluation (Rittel and Webber 1973, 163; Boyer et al. 2011, 16,27; DesignGov 2013, 6), with principles of user-centred activity and which include citizens in problem-solving. Design thinking has citizens and users at the centre as co-designers (Boyte 2005; Burns et al. 2006, 18; Leadbeater and Cottam 2007, 98; DesignGov 2013, 10; Bason 2014; Durose and Richardson 2016). An aim is to involve different forms of expertise in the policy process without a zero-sum substitution of professional insights or scientific data (top-down) in favour of experiential expertise (bottom up) (Mintzberg 2005; Durose and Richardson 2016). It is these practices, specifically the use of multiple forms of expertise, going beyond top-down and bottom up, that came to the fore as the case study proceeded.

Conclusions

When seeking to build more citizen participation and reflection into public policies, there is the danger that the very paternalism that makes policy implementation of expert-led policies so problematic remains embedded into the roll out of the design, which replicates rather than challenges the top-down character of policy-making. The new generation of reflective nudges and the nudge plus of John and Stoker (2019) seek to include the views of the groups they are supposed to influence. In addressing the democratic paradox of paternalism in participatory policy design, this paper contributes a theoretical and empirical case for trans-disciplinary design approaches to the development of behavioural public policy. A core underpinning principle is that policies are co-designed, using multiple forms of expertise (Durose and Richardson 2016).

The case study developed iteratively from nudge to nudge plus, using design approaches that helped participants re-define who was thought of as an expert and the forms their expertise could take. It was a process of evolutionary design, with the housing organisation leading the initiative. Some may question the degree to which an evolutionary process fits the criteria for design, which suggests a more deliberate and conscious method. However, design principles build in adaption and flexibility into decision-making systems (Heskett 2001, 131). They commonly proceed in an iterative series of reflections, feeding in findings from successive evaluations (Stoker and John 2009). In any case, an iterative process is very typical in many organisational contexts. We would support the propositions made by other scholars who have argued that design is ‘not a cookbook’; there is no simple fail-safe recipe to follow (Bobrow and Dryzek 1987, 207; Boyer et al. 2011, 87). As others have rightly argued, successful trans-disciplinary or participatory arrangements are often not ‘the result of masterful design’, but have instead often ‘arose haphazardly - themselves the result of fitful informal deliberations’ (Fung, and Wright 2003, 115).

The policy implication is that such policies need not be predicted on the form of nudge plus that is introduced, more on how multiple forms of expertise combine to form policies. In this way, nudge plusses may emerge naturally as a result of the evolutionary co-design process. Given the evolutionary nature of the specific case presented here, it is an example of what is possible, rather than proof that such an approach could be used more generally. So often the worlds of behaviour change and design labs operate in separate worlds, partly because of different disciplinary backgrounds, the former an outcrop of economics and evaluation, with economists and trial experts dominating, the latter with more of an arts base, as well as sociology. But this separation can be addressed. The happy accident that brought these two worlds together in this case study might be replicated with greater cross over between the two by introducing behaviour change policies with a design-based approach.

Research Ethics Statement

The research project (“Citizen Contribution to Local Public Services: Field Experiments in Institutions Incorporating Social Information”) received ethical approval from UCL in August 2014.

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LR and PJ wrote the first and subsequent drafts of the manuscript. LR initiated the case study designed the case, and conducted the analysis, with comments from PJ.

Conflict of interest statement

The authors declare that there is no conflict of interest

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Figure 1: Timeline of example

Year	Pre-2012	2012 to mid-2014	Mid-2014	Autumn 2014 to 2017
Phase	Phase 1	Phase 2	Phase 3	Phase 4
	Frustration with conventional ‘thinks’	Technical expert-led approach	Failure of the technical expert-led approach	Evolution of the design lab
Key activities	Ineffective, unrepresentative resident participation attempts	<ul style="list-style-type: none"> • Launch of organisation’s manifesto • Strategic advisory group • Behavioural initiatives • Volunteering nudge RCT • Resident satisfaction research (policy document) 	<ul style="list-style-type: none"> • RCT null results • Conclusions of resident satisfaction research 	<ul style="list-style-type: none"> • Reflection on past failure (policy document) • Citizen social science • Resident rep focus groups • Resident survey • Nudge RCT research conference • Staff meetings • Peer workshop • Crystallisation of nudge plus and pilot proposals (policy document)