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**Working Paper**

## Understanding solutions to problem debt: An experimental investigation

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*Working Paper No. 726*

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## *Understanding Solutions to Problem Debt: An Experimental Investigation*

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**Abstract:** We report a multi-stage online experiment (n=1,320) that tested multiple hypotheses regarding the and communication of solutions for people with problem debt. We report four main findings. First, decision trees made it easier for people to locate solutions appropriate to their circumstances. Second, the merits of describing debt solutions using presentation an internal (taking control) versus external (help when overwhelmed) locus of control were unclear, as effects were differential for different population subgroups. Third, debt solutions were better understood when information was structured around the process of engaging with the solution, rather than around the benefits. Fourth, the acceptability of debt solutions was strongly influenced by the emotional content of the relevant language, in keeping with the influence of stigma. These results have implications for improving communications with people seeking solutions to problem debt.

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## **Introduction**

This study has its origins in a puzzle that dates back almost ten years. Put simply, the puzzle is why so few Irish households have availed of what, on the face of it, appear to be helpful solutions for people with problem debt.

Ireland's economic and financial crisis followed a housing and credit bubble that was extraordinarily high by international standards (Honohan, 2010). Given the collapse in employment and wages that ensued, it was inevitable that a substantial proportion of households in Ireland were going to be unable to meet their debt obligations. By 2013, more than one-in-eight mortgages on principal dwelling houses were in arrears, with more than half in arrears by more than a year (Central Bank of Ireland, 2021). This same report charts a steady decline in the proportion of mortgages in arrears between 2013 and 2021, as well as a declining overall debt to income ratio in Irish households. Nevertheless, in the first quarter of 2021, more than 50,000 (of 730,000) mortgages were in arrears, over 29,000 of which were in arrears for more than one year and over 15,000 for more than five years. Although equivalent data for non-mortgage debt is hard to come by, approximately 20% of Irish households with non-mortgage debt report that the debt is a "heavy burden", with a higher proportion among low income households and people who rent their home (Lajoie, 2020).

Anticipation of the scale of this problem underpinned the Personal Insolvency Act 2012, which set out to provide debt solutions other than bankruptcy. The Act led to the establishment of the Insolvency Service of Ireland (ISI) in 2013. Amongst other regulatory tasks, the new agency was set up to monitor, process and register three new types of debt solution: Personal Insolvency Arrangements (PIA), Debt Relief Notices (DRN), and Debt Settlement Arrangements (DSA). A PIA is the primary solution designed for those in mortgage trouble, who have high levels of secured (and perhaps unsecured) debt. It is a

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formal agreement with creditors negotiated via an intermediary (a Personal Insolvency Practitioner, PIP) that enables the debtor to write off some unsecured debt and restructure secured debt (generally their mortgage), preferably while remaining in their home. A DRN is designed for people without mortgages who have unsecured debts of less than €35,000, but low income and few assets. It involves a negotiated write-off of debts subject to a three-year supervision period. A DSA is similar but applies to larger unsecured debts, allowing for some write-off, but with the debtor agreeing to pay a percentage of the overall debt for a specified period of time.

In the lead up to the 2012 Act, concern was expressed in public debate that the financial incentives associated with such debt solutions might lead to a flood of applicants seeking relief. In short, some worried that the schemes would prove to be too generous. Yet the reality turned out to be quite different. In a period approaching eight years, by the middle of 2021, a total of 5,701 PIAs had been approved, alongside 1,832 DRNs and 1,111 DSAs (Insolvency Service of Ireland, 2021). Rather than worry about high numbers of applicants, the greater concern is why households who would apparently benefit from the debt solutions are failing to take them up. This is reflected in the ISI Strategic Plan (2019-2021), which includes as an explicit goal: “To design, plan and implement an effective external communications strategy, raising awareness of bankruptcy and insolvency solutions amongst our target audience.” (Insolvency Service of Ireland, 2019, p.1).

The issue is potentially important. To the extent that low take-up of the available debt solutions implies many households dealing with ongoing debt problems that could otherwise be made manageable, it is likely to have implications for wellbeing. Most obviously, these implications include unnecessary financial hardship, but they extend to other aspects of wellbeing too. While the relationship between problem debt and poor mental health is a

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complex one (Bridges and Disney, 2010), evidence suggests that causality runs in both directions, such that in some cases those who get into difficulties with debt suffer mental health problems as a result (Gathergood, 2012).

Problem debt arises in relation non-mortgage debt also (Lajoie, 2020). The issue is likely to be intensified in recent years by rising rents and the economic disruption of the COVID-19 pandemic. The Personal Insolvency (Amendment) Act 2021 has broadened access to the ISI's debt solutions in the context of these financial pressures.

## **Research Questions and Hypotheses**

Within this context, the present study was commissioned by the ISI to provide evidence for policy and practice. We report an online experiment with a total sample of over 1,300 Irish adults that set out to address a series of research questions and specific hypotheses. In line with best scientific practice, the hypotheses we describe below were preregistered alongside the experimental design and data analysis plan.<sup>a</sup>

We approached this task from the perspective of behavioural science. We reasoned that a substantial proportion of people with problem debt would be likely to use the internet as a resource for seeking solutions. Even for those who are regular internet users, this is potentially a daunting task. The searcher will encounter an array of relevant organisations and a large volume of information, both from multiple public agencies, private interests and not-for-profit organisations, often presented in ways that make it difficult to distinguish between them. Engaging with financial solutions may be challenging, especially for the many people who do not have high levels of financial capability (O'Donnell and Keeney, 2010) and who may be over-represented among those experiencing problem debt. The results of initial

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<sup>a</sup> The pre-registration was lodged with the Open Science Framework (OSF) at <https://osf.io/ywcqj>. *ESRI working papers represent un-refereed work-in-progress by researchers who are solely responsible for the content and any views expressed therein. Any comments on these papers will be welcome and should be sent to the author(s) by email. Papers may be downloaded for personal use only.*

internet searches may determine which organisations an individual chooses to contact and which solutions they seek more information about.

In addition to the cognitive challenges of looking for debt solutions, people with problem debt might struggle with the emotional side of engaging with organisations and people about their debts. Evidence suggests that indebtedness is associated with social stigma (Fay et al., 2002), which is likely to be stronger where people are not familiar with others who have experienced difficulties with debt (Angel, 2016; Gathergood, 2012).

Given the above, we set out to address the following broad research questions: (1) Does the format for displaying overviews of different debt solutions affect debtors' ability to identify the solution relevant to them? (2) Can behaviourally informed information provision improve comprehension and appeal of debt solutions? (3) Does the framing of debt solution information influence psychological factors related to comprehension and appeal of solutions, perceived control over the situation, and perceived emotional wellbeing when engaging with a solution?

An initial difficulty an individual might face when looking for information is to decide which potential debt solution is appropriate to their specific circumstances. Solutions are typically displayed by organisations in tables or lists. Research across multiple areas of decision-making has shown that, in some contexts, converting such information into “decision trees” can improve learning and comprehension (Green and Mehr, 1997; Martignon et al., 2003). A decision tree simplifies information by reducing it to a sequence of more simple decisions with defined outcomes. In Ireland, decision trees have been used recently to improve public comprehension of COVID-19 symptom patterns (Lunn et al., 2020). Initial observations indicated that information on some websites describing debt solutions was tabulated while on others some form of decision tree was used. Given this evidence, we set

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out to test two types of decision tree, involving either a single step with three answers or three binary steps. This generated the following hypotheses:

- H1: The one-step decision tree format used on the backontrack.ie website would perform better than the table format used on the ISI website.
- H2: A new three-step decision tree format would outperform both.

An initial examination of communications materials employed by ISI identified that a repeated message was one of offering to help because “debt can be overwhelming”. Some positive message framings were also evident, including describing “benefits of ISI solutions” and encouraging people with problem debt to “take control of your situation”. Previous psychological research suggests that these messages may have contrasting impacts, because decision-making and behaviour in different contexts can depend on whether people believe that they have control over the outcome of events in their life or whether they believe that external forces determine their outcomes. Some previous evidence implies that individuals who have a higher “internal locus of control” tend to better manage debt (Mewse et al., 2010). This informed the following hypothesis:

- H3: An “internal control” framing that places emphasis on the individual taking control will lead to a more positive view of the debt solution than an “external control” framing that places emphasis on being overwhelmed and getting help.

An important aspect of engagement with debt solutions is that individuals lack experience and, in all likelihood, initial knowledge. Uncertainty can have a strong impact on decision-making. In the case of debt solutions, uncertainty may surround the benefits of the solution itself or the process that must be undertaken to obtain the solution. Reducing

uncertainty about benefits or process can have contrasting and sometimes surprising effects

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on those seeking financial information. For instance, individuals who list a greater number of actions that they will need to take in order to switch mortgages have a stronger inclination to switch (Timmons et al., 2020). The reduction in uncertainty about the process appears to outweigh the disbenefit of the hassle involved. In addition to altering the potential attractiveness of a solution, organising information according to a narrative structure can improve comprehension of financial products (Lusardi et al., 2015). These insights underpinned the following hypothesis:

- H4: Understanding and likelihood of engagement with a debt solution will differ when information is focused on the process of obtaining the solution rather than its benefits.

A further possibility is that focussing information about debt solutions on the process or the benefits may interact with the control framing:

- H5: There will be an interaction between the internal/external control and process/benefit frames.

The above hypotheses lend themselves to direct experimental tests of hypothetical interventions. In addition to these tests, the multi-stage experimental design that we employed for this study permitted some further tests of more exploratory hypotheses in relation to the kind of descriptions and specific forms of language used when presenting or discussing information about debt solutions. As described above, stigma is a potential problem and using language that reduces stigma may therefore be beneficial. We hypothesised that recognition of the emotional difficulty of coping with problem debt would be likely to reduce stigma.

Perhaps more obviously, we also hypothesised that stigma would be associated with the

degree to which individuals were perceived to be to blame for their situation. Stigma is not

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straightforward to define or measure. For the person experiencing it, emotions of shame and regret are likely to be important, as is the fear of how one is perceived by others. In this study, we associate it with the perception of third parties as to whether an individual takes responsibility for their situation and whether a solution involving a debt write-off is felt to be appropriate to their circumstances. Given this, we hypothesised:

- H6: Detail about a subject's emotional state will lower stigma.
- H7: Scenarios in which the subject is more "to blame" for their situation will increase stigma.

Specific forms of language can also affect the degree to which solutions are viewed as attractive propositions. Debt is a relational situation: people in problem debt must manage their relationship with lenders, which may be a source of stress. We therefore hypothesised that describing a solution as a way to come to an arrangement with lenders might alter how it was viewed compared to describing it as a way to find a solution to a debt problem.

- H8: Describing a debt solution as an "arrangement" rather than a "solution" may alter its perceived appropriateness.

Lastly, there is ample evidence from behavioural science to suggest that simplicity is attractive and that people are drawn towards more simple solutions and processes (Sunstein, 2013). Our final hypothesis was:

- H9: Less technical language will improve the perceived appropriateness of the solution.

## **Method**

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Participants undertook the experiment online via Gorilla Experiment Builder (Anwyl-Irvine et al., 2020), which allowed participants to complete the study on a mobile phone or tablet as well as a computer. Data were collected in May 2021. The study consisted of two versions that were closely similar and involved multiple sequential stages. Participants with a mortgage completed a version focused on PIAs, while those without a mortgage completed a version focused on DRNs. The study complied with institutional ethics policy.

Participants were initially asked whether they had a mortgage and were assigned to the appropriate version of the study. Both versions centred on a scenario describing a real person’s struggles with debt. Given the importance of participants absorbing this scenario, we incorporated an initial attention check into the design. The instructions told participants to read the scenario carefully, to imagine that they were themselves struggling with the situation described, and that they would be asked questions about it afterwards to make sure they had read it carefully. The scenarios are shown in Table 1. Two multiple choice questions (MCQs) followed immediately, which required participants to recall the correct type of tenancy and level of debt (from a list of six amounts). Only those that completed these attention checks went on to conduct the study proper.

**Table 1: Debt scenarios underpinning the two versions of the study (PIA and DRN).**

| Personal Insolvency Arrangement (PIA) Version   | Debt Relief Notice (DRN) Version  |
|---|---|
| Please imagine you are a full-time worker paying off a mortgage on your family home. In recent years your income has decreased due to a pay cut and your partner suffering from ill health. Buying food, caring for your partner and school costs for the kids meant you couldn’t always meet your mortgage payments. You are in mortgage arrears of around €55,000 and have been for some time. Your partner is now back at work and | Please imagine you are living in rented accommodation. You were working, but lost your job a few years ago. Social assistance payments (Jobseeker’s Allowance) cover some of your expenses but you have been using credit cards trying to bridge the gap so your debt is constantly building. You already had a credit union loan before this and your total debt now stands at €18,000. Your only major asset is |

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you pay off as much as you can each month but you can't see how you will be able to get on top of things any time soon. You have been receiving frequent calls from the bank and are afraid you might lose your home.

a car, worth under €2,000. You have been managing to keep up with your rent but are not able to pay your other debts on time. You have been looking for another job but there isn't much out there. You're worried about being taken to court.

### *Participants*

Participants were recruited from a market research agency's online panel to match socio-demographic quotas. Following the initial attention checks, the sample that completed the study was 1,320, of which 695 undertook the PIA version and 625 undertook the DRN version. Table 2 provides a breakdown of the socio-demographic characteristics of both subsamples. As expected, members of the PIA subsample were more likely than members of the DRN subsample to be in work, aged 35-54, educated to degree level or above, living in Leinster, and of Irish nationality. While the differences between subsamples were largely as expected, the DRN subsample was somewhat biased towards females.

### *Procedure*

Following the attention check, we thanked participants for reading the scenario carefully and invited them to write in an open text box how they thought such a situation would make them feel. This question was designed to reinforce engagement with the hypothetical debt scenario. At this point and throughout the stages that followed, participants could reread the scenario by clicking on a button. A further screen invited them to write in another open box what steps they would take if they faced this problem in real life. The experiment then consisted of five stages.

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**Table 2: Socio-demographic characteristics of the subsamples undertaking the two versions of the study (PIA and DRN).**

|                    |                  | PIA Version |              | DRN Version |              |
|--------------------|------------------|-------------|--------------|-------------|--------------|
|                    |                  | n           | %            | n           | %            |
|                    | <b>Total</b>     | <b>695</b>  | <b>100.0</b> | <b>625</b>  | <b>100.0</b> |
| <i>Gender</i>      | Male             | 339         | 48.8         | 265         | 42.4         |
| <i>Age</i>         | 18-24            | 13          | 1.9          | 84          | 13.4         |
|                    | 25-34            | 82          | 11.8         | 105         | 16.8         |
|                    | 35-44            | 240         | 34.5         | 123         | 19.7         |
|                    | 45-54            | 241         | 34.7         | 129         | 20.6         |
|                    | 55-64            | 91          | 13.1         | 92          | 14.7         |
|                    | 65+              | 28          | 4.0          | 92          | 14.7         |
| <i>Education</i>   | Degree or above  | 348         | 50.1         | 210         | 33.6         |
|                    | Below degree     | 347         | 49.9         | 415         | 66.4         |
| <i>Employment</i>  | Full-time worker | 441         | 63.5         | 319         | 50.9         |
| <i>Living Area</i> | Urban            | 434         | 62.4         | 372         | 59.5         |
|                    | Rural            | 261         | 37.6         | 253         | 40.5         |
| <i>Region</i>      | Dublin           | 226         | 32.5         | 157         | 25.1         |
|                    | Rest of Leinster | 198         | 28.5         | 157         | 23.4         |
|                    | Connacht/Ulster  | 110         | 15.8         | 146         | 21.6         |
|                    | Munster          | 161         | 23.2         | 187         | 29.9         |
| <i>Nationality</i> | Irish            | 631         | 90.8         | 86          | 86.2         |
|                    | Non-Irish        | 64          | 9.2          | 539         | 13.8         |

### *Stage 1: Webpage Mock-ups*

Stage 1 informed participants that they would see some search results about getting help with debt. It asked them first to enter a search term they might use to look for help, before showing them a page with a mock-up of four search results in random order. The instructions invited participants to use the links as they would in real life to look for help. The links were to mocked-up pages from four genuine organisations: MABS, the Monetary

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Advice and Budgeting Service ([www.mabs.ie](http://www.mabs.ie)), the Competition and Consumer Protection Commission ([www.cccp.ie](http://www.cccp.ie)), the Citizens' Information Services ([www.citizensinformation.ie](http://www.citizensinformation.ie)), and the ISI website built specifically to help debtors ([www.backontrack.ie](http://www.backontrack.ie)). Details are provided in Appendix A. The last of these was the target webpage, which contained a between-subjects experimental manipulation designed to test H1 and H2. The three non-target webpages offered general advice on coping with debt and referred to the ISI debt solutions among other options, but did not provide any detail, including eligibility criteria. On the target webpage, participants randomly viewed one of three versions. In the "Table" condition, they saw three debt solutions (plus bankruptcy) displayed as on [www.isi.gov.ie](http://www.isi.gov.ie) using a table to explain the criteria for eligibility. In the "One-step Tree" condition the same solutions were organised into a one-step decision tree, with a summary of all solutions also shown below the options, as displayed on [backontrack.ie](http://backontrack.ie). Three buttons described the criteria (e.g. "I have no mortgage and debt under €35,000") and clicking on each brought up a description of the associated debt solution, including further detail on eligibility. In the "Three-step Tree" condition, a decision tree offered participants a sequence of simpler binary options (e.g. "My total debt is over €35,000", "I have a mortgage", "I am in mortgage arrears"), leading to a page telling the reader they may be able to apply for the associated debt solution, but omitting additional detail regarding eligibility at this stage.

Participants could not move on from the search results page until they had viewed all four webpages, but could spend as little or as much time as they liked on each. We recorded how long they spent viewing each webpage and whether the tree was used in the two relevant conditions. The following two pages elicited two initial outcomes of interest. The first listed nine organisations in random order. These were the four matching the webpages plus a

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solicitor, a Free Legal Advice Centre (FLAC), the owed lenders, other lenders and Personal Insolvency Practitioner (PIP). We asked participants to click those they would be likely to contact, in the order they would seek to contact them. The second page repeated the task for seven possible options for dealing with the debt: PIA, DRN, DSA, bankruptcy, help from family and friends, a debt consolidation loan, and the Abhaile Scheme.<sup>b</sup>

Lastly in this stage, participants were redirected back to the [www.backontrack.ie](http://www.backontrack.ie) webpage and told that they would then be asked which would be the most appropriate solution for the given scenario. They then answered a multiple choice question (MCQ) requiring them to choose one of (first four in random order): PIA, DRA, DSA, bankruptcy, none of the above. Three subsequent questions asked how likely participants thought they would be to look into the chosen solution, how likely they thought they would be to be eligible, and how helpful they thought it would be. Responses were collected on 7-point scales.

### *Stage 2: Detailed Information*

Stage 2 began by informing participants that the most suitable debt solution for the specific scenario was in fact the PIA (in the PIA version) or DRN (in the DRN version). It informed them that they would now see more detail about the scheme and directed them to a webpage containing further information. This stage incorporated a 2x2 between-subjects manipulation to test hypotheses H3-H5 with respect to engagement with the solutions. Factual information about the debt solutions was kept constant, but the imagery (Figure 1) and verbal descriptions were manipulated. In the internal control (“Internal”) condition, the

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<sup>b</sup> The Abhaile Scheme is the name given to the free advice scheme operated by MABS and was referred to on the mocked-up MABS webpage.

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solution was framed (through both imagery and wording) as a way to regain control over a challenging situation. In the external control (“External”) condition the solution was framed as a way to get help with something that can be overwhelming. The information was listed under headings either corresponding to “What are the benefits for me?” (“Benefits” condition) or to “What’s the process?” (“Process” condition). Complete webpage contents are provided in Appendix B. These two manipulations were orthogonal, with participants hence randomised into one of four possible combinations.



**Figure 1: Images for the Internal (top) versus External (bottom) framing conditions.**

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After reading the detailed information, participants were asked how likely they would be to apply for a PIA/DRN, how helpful they thought it would be, how well they thought they understood the PIA/DRN, and whether they thought it would be the best path out of all options. Responses were given on 7-point scales. They were subsequently asked to enter the three feelings or emotions that come to mind when imagining engaging with the solution. Lastly, a question asked to what extent participants thought they would feel in control of their finances if they got a PIA/DRN.

### *Stage 3: Comprehension*

In Stage 3, MCQs were used to test participants' comprehension of specific parts of the relevant debt solution. This stage tested hypotheses H3-H5 with respect to understanding. The questions were all factual in nature (e.g. "Can you get a DRN if you have a mortgage?"; "Is there a fee to apply for a PIA?"). Participants were told that if they were not sure of the answer, they should give it their best guess. They answered five questions. The full sets of questions are listed in Appendix C.

### *Stage 4: Vignettes*

In Stage 4, participants had to respond to four vignettes (short descriptions of scenarios) about individuals who are in debt. Full versions of all four vignettes are provided in Appendix D. For each of the four vignettes, they were randomised to see one of two versions, where the differences between versions were designed to test hypotheses H6-H9. For instance, with respect to H6, half the participants saw the following text (Vignette A) without the bracketed sentences in and half saw it with the bracketed sentences:

Paul was due to retire and decided to buy a second house to rent out as an additional source of income. Initially the rent was paying the mortgage.

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But when the recession hit he lost his tenant, the mortgage repayments went up, and his pension dropped. He began running up credit card debt paying for the mortgage. [Paul became very stressed, to the point it was affecting his mental and physical health.]

The bank sent Paul a letter asking him to sign the rental house over to them, but his solicitor advised him not to do this as he would still be €180,000 in debt. Instead they suggested he talk to a Personal Insolvency Practitioner, and he managed to get a Personal Insolvency Arrangement. As part of the arrangement the rental house is gone, as well as Paul's credit card bill. [The relief for Paul has been huge, and his health has improved.]

Three questions followed this vignette, asking to what extent Paul was to blame for his situation, to what extent he took responsibility, and whether a PIA was an acceptable solution. Responses were entered on 7-point scales. To test H7, two versions of Vignette B differed with respect to whether a person who had lost their job accumulated debts to maintain lifestyle or, instead, to pay medical bills. The same three response questions followed. For H8, two versions of Vignette C described an individual contacting an insolvency professional to “come to an arrangement with” lenders or to “find a solution to the debt problem”. One response question asked whether contacting the insolvency professional was the best option. Lastly, for H9, two versions of Vignette D differed in the degree to which language was technical. The first used the terms “creditors”, “unsecured debt” and “secured debt”, while the second used “those they owe money to”, “debt with the credit union” and “mortgage”. One response question asked whether applying for the debt solution was the best option.

### *Stage 5: Additional Variables*

The final stage elicited some measures of financial behaviour that might help to illuminate some of the patterns in the responses to previous stages. These included the short version of the Financial Wellbeing Scale developed by the Consumer Financial Protection

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Bureau (CFPB, 2017) in the USA, the Lown Financial Efficacy Scale (Lown, 2011), and an abbreviated version of Furnham's Economic Locus of Control Scale (Furnham, 1986), which is provided in Appendix E. Some questions also probed whether respondents had used different forms of credit, whether they had trouble repaying debts, and whether they had ever sought professional help over debt. Lastly, a set of questions gathered standard socio-demographic variables: age, gender, educational attainment, occupation, employment status, household structure, nationality, region.

## **Results**

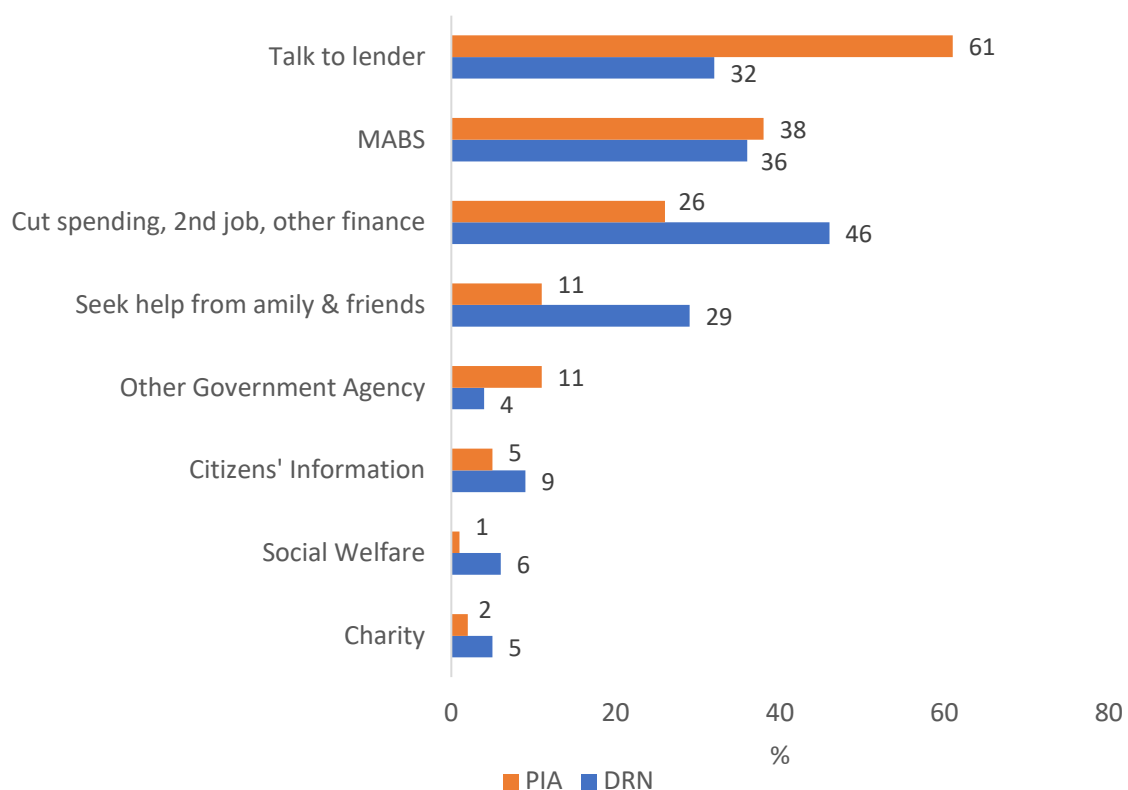
In addition to participants who failed the attention checks, who were excluded during data collection, the few participants (2%) who read the scenario in an unrealistically rapid time (less than 10 seconds) and then did not click back to view it were excluded from data analysis. The final samples for analysis were 681 (PIA) and 611 (DRN). Answers to the initial question about how the scenario would make people feel implied strong engagement with the study: 96% of respondents replied that they would experience a strong negative emotional reaction (anxiety, fear, stress, depression, being overwhelmed, etc.).

### *First steps*

Figure 2 shows the responses to an open text question about what steps participants would initially take to deal with the scenario put before them. The responses are classified according to the organisations and actions mentioned. Most participants mentioned more than one organisation or action. There were clear differences between the responses in the PIA and DRN versions that largely reflect the difference in the size of the debt. These included willingness to seek help from family and friends; the hope that talking to the lender might

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lead to a restructuring of the loan; or the belief that reduced spending, additional work, or another loan might address the problem. Figure 2 also gives an indication of how powerful the MABS brand is as a trusted public service organisation, since more than one third of participants in both versions explicitly named MABS in their responses. A far smaller number mentioned Citizens' Information or made reference to trying to contact relevant Government agencies, often using names that do not, in fact, exist. Of more than 1,300 responses, not one explicitly name-checked ISI, although a proportion of those in the "Other Government Agency" category did state that they thought there was a relevant Government agency and that they would search online for it. There were also two mentions of "back on track".



**Figure 2: Responses to an open text question about what initial steps participants would take to sort out the debt problem.**

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### *Stage 1: Webpage mock-ups*

Once the participants had visited the four webpages, they ranked the organisations they would be likely to contact and solutions they would be likely to look into. These are shown in Table 3, for both the PIA and DRN versions of the experiment. A lower score corresponds a higher ranking. Options not given a rank were assigned the mean rank of the unranked options. Before considering variation by experimental condition, note that the target organisation providing debt solutions, ISI, was ranked on average more than half way down the list of organisations. Similarly, the target solutions (PIA or DRN) were ranked more than half way down the list of solutions. Taken together with the open text responses described above, these results indicate low public recognition of ISI and the debt solutions it offers. Organisations that were ranked more highly, such as MABS and Citizens' Information, are long-standing and trusted public service organisations. It is also notable that among the solutions, DSA was ranked more highly than PIA or DRN, despite being unsuitable for the scenarios. The connotations of "settlement" and "arrangement" may simply be more positive and optimistic than those of "insolvency", "notice" and "relief", or perhaps more recognisable as implying a solution.

As Table 3 shows, the introduction of decision trees to the ISI webpage marginally improved the ranking of ISI and had a clear statistically significant impact on the ranking of the appropriate solution. This effect of the decision trees therefore supports H1 and partly supports H2. However, contrary to H2, ranking differences between the One-Step Tree and Three-step Tree condition were not statistically significant. Decision trees were not only looked at but actively used by almost half (48%) the participants at this stage, more so in the Three-step Tree condition (58%, versus 38% for One-step Tree). Those who used the trees ranked the target organisation and target solution more highly than those in the same

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condition who did not use the tree. These results are robust to controlling for how long participants had spent reading the webpages.

**Table 3: Rankings of organisations participants said they would be likely to contact and solutions they would be likely to look into, by version of the experiment (PIA or DRN), experimental condition, and whether participants did or did not use the decision trees**

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**on the ISI webpage. Note that a lower ranking implies greater likelihood of making contact or looking into the solution.**

| Organisation                 | Ranking<br>(standard error) |                   | Solution                                    | Ranking<br>(standard error) |                   |
|------------------------------|-----------------------------|-------------------|---|-----------------------------|-------------------|
|                              | PIA                         | DRN               |   | PIA                         | DRN               |
| CCPC                         | 5.52 (.07)                  | 5.52 (.08)        | Abhaile scheme                              | 3.20 (.08)                  | 5.02 (.06)        |
| Citizens' Information        | 3.91 (.08)                  | 3.01 (.08)        | Bankruptcy                                  | 5.45 (.05)                  | 5.22 (.05)        |
| FLAC                         | 5.29 (.07)                  | 5.11 (.07)        | Consolidate                                 | 3.73 (.07)                  | 3.83 (.08)        |
| <b>ISI</b>                   | <b>5.70 (.07)</b>           | <b>5.33 (.08)</b> | <b>DRN</b>                                  | 4.80 (.06)                  | <b>4.08 (.07)</b> |
| Lender                       | 2.80 (.08)                  | 3.97 (.09)        | DSA   | 3.65 (.07)                  | 3.36 (.08)        |
| MABS                         | 2.24 (.06)                  | 2.04 (.06)        | Family & friends                            | 3.67 (.08)                  | 3.18 (.09)        |
| Other lenders                | 6.84 (.06)                  | 6.86 (.06)        | <b>PIA</b>                                  | <b>4.23 (.07)</b>           | 4.32 (.07)        |
| PIP                          | 6.28 (.06)                  | 6.32 (.06)        |   |                             |                   |
| Solicitor                    | 6.41 (.07)                  | 6.77 (.06)        |   |                             |                   |
| <i>ISI rank by condition</i> |                             |                   | <i>Solution (PIA/DRN) rank by condition</i> |                             |                   |
| Table                        | 5.83 (.12)                  | 5.29 (.14)        | Table                                       | 4.43 (.11)                  | 4.34 (.13)        |
| One-step Tree                | 5.64 (.11)*                 | 5.18 (.14)        | One-step Tree                               | 4.21 (.12)                  | 3.99 (.14)**      |
| Three-step Tree              | 5.63 (.12)                  | 5.51 (.12)        | Three-step Tree                             | 4.06 (.12)**                | 3.93 (.13)***     |
| <i>If tree used</i>          |                             |                   | <i>If tree used</i>                         |                             |                   |
| One-step Tree                | 5.41 (.20)*                 | 5.07 (.21)        | One-step Tree                               | 3.73 (.19)***               | 3.07 (.21)***     |
| Three-step Tree              | 5.45 (.16)**                | 5.33 (.17)*       | Three-step Tree                             | 3.89 (.15)***               | 3.48 (.17)***     |
| N                            | 681                         |                   |   | 611                         |                   |

Asterisks indicate statistical significance of increase in ranking compared to the Table condition, or compared to the group of participants who did not use the decision tree.

\* p<0.1; \*\* p<0.05; \*\*\*p<0.01.

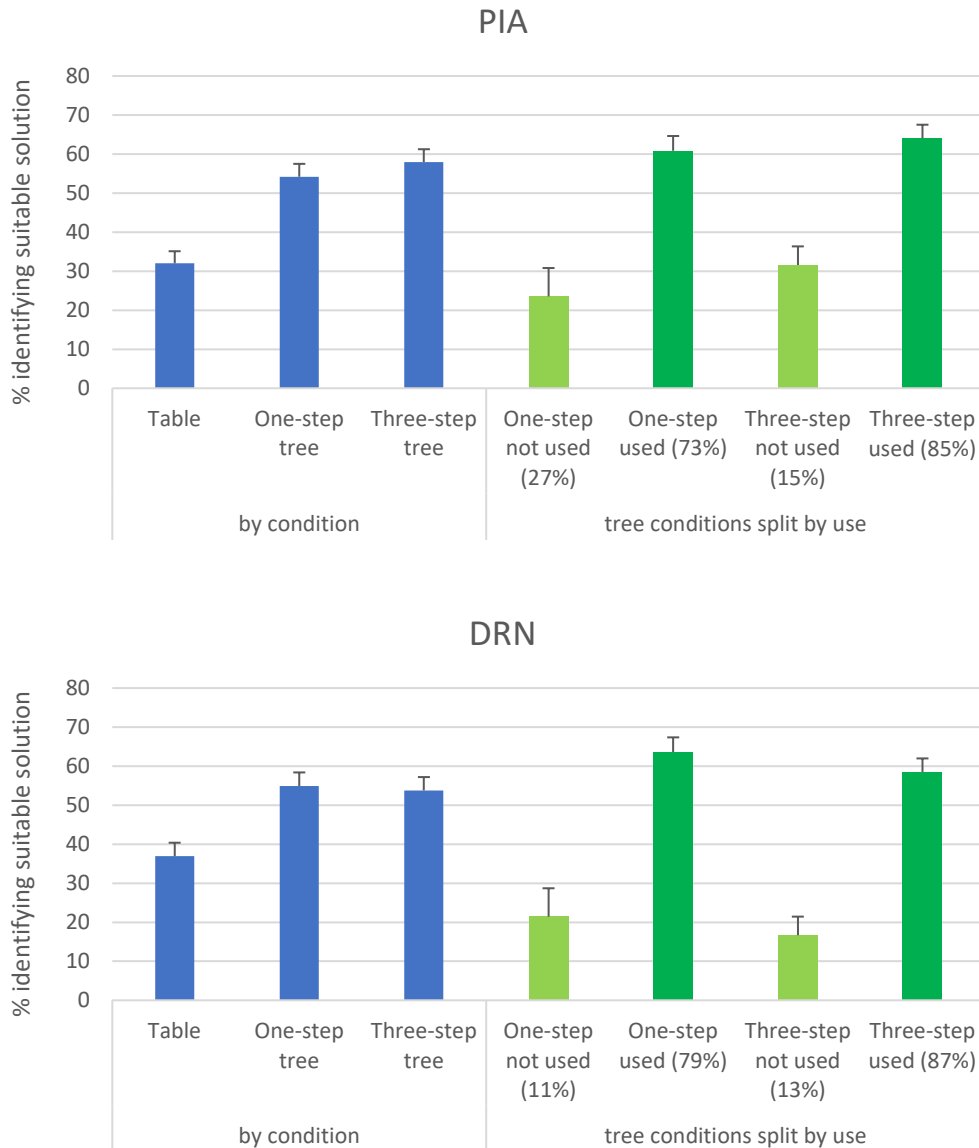
When participants returned to the back-on-track webpage after being asked specifically to find the most suitable solution, more substantial differences emerged by condition. Figure 3 displays the proportion of participants who correctly identified that the PIA or DRN was the appropriate solution for a person in the scenario they had been given.

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Note that this judgement was multiple choice and mainly required participants to understand the relevant eligibility criteria. In the control condition where participants saw the table presentation, 32% (PIA) and 37% (DRN) of participants correctly identified the most suitable solution. In the conditions with the decision trees, these proportions rose to 54% (One-step) and 58% (Three-step) in the PIA version and to 55% (One-step) and 54% (Three-step) in the DRN version. All four comparisons with the Table condition are very highly statistically significant (logistic regression,  $p < 0.001$ ), while the differences between the two conditions with decision trees are not significant. This pattern of responses was repeated in the evaluation questions that followed. Considering only those who had correctly identified the right debt solution, participants in the conditions with the decision trees found the website to be clearer about the appropriate solution, were more likely to say they would look into the solution, more likely to think that they were eligible for the solution, and more likely to view the solution as helpful. The majority of these comparisons with the control condition were statistically significant (Mann-Whitney Wilcoxon,  $p < 0.5$ ), while differences between the two conditions with decision trees were not.

Overall, therefore, Stage 1 of the study found good support for H1 and partial support for H2: the decision trees improve people's ability to recognise appropriate debt solutions. However, the tree with a single step was as effective as the three-step tree.

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**Figure 3: Correct answers to multiple choice questions asking participants to identify the most suitable debt solution for the scenario they had been given, by condition and by whether or not the decision tree was used. Percentages in brackets indicate the proportion within the condition that used the decision tree.**

*Stage 2: Detailed Information*

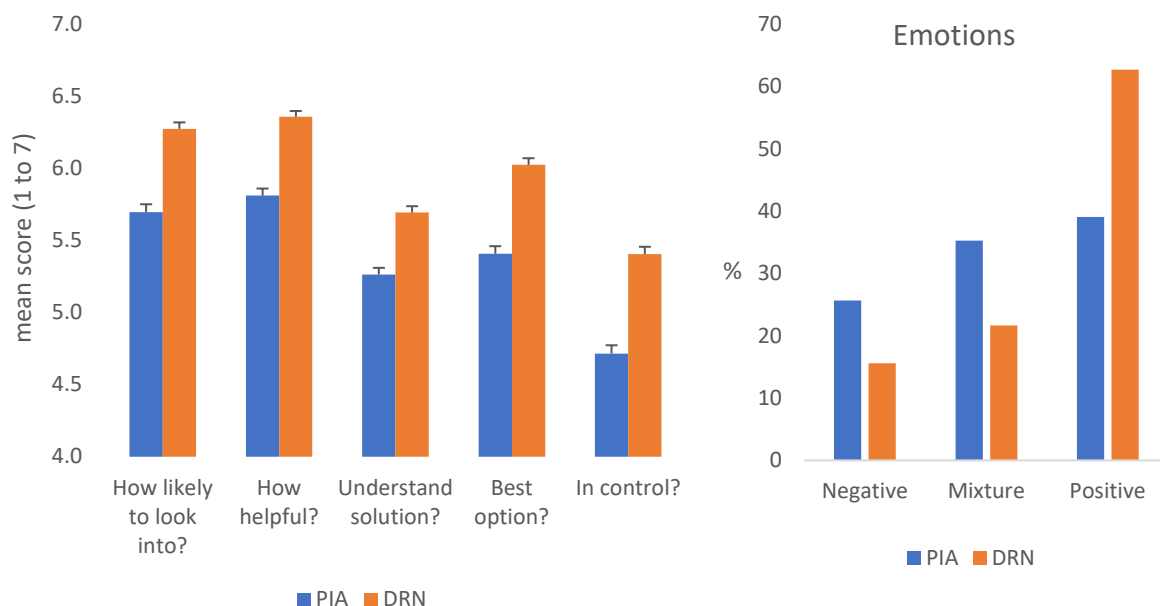
Participants (3%) who spent less than 10 seconds reading the more detailed information about the relevant debt solution were excluded from the analysis of this stage.

Figure 4 (left) shows mean scores for a series of responses to the detailed descriptions, scored

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from 1 to 7. Mean scores were all above the midpoint of the scale and were especially positive in the case of the DRN. Figure 4 (right) shows the balance of the three emotional responses provided, which were coded as either all positive, all negative, or a mixture. Again, the responses were in general positive. This was especially true of responses to the DRN, which evoked only positive emotions for more than 60% of participants. The most common positive emotion expressed was relief. Among the negative emotions, shame featured strongly.



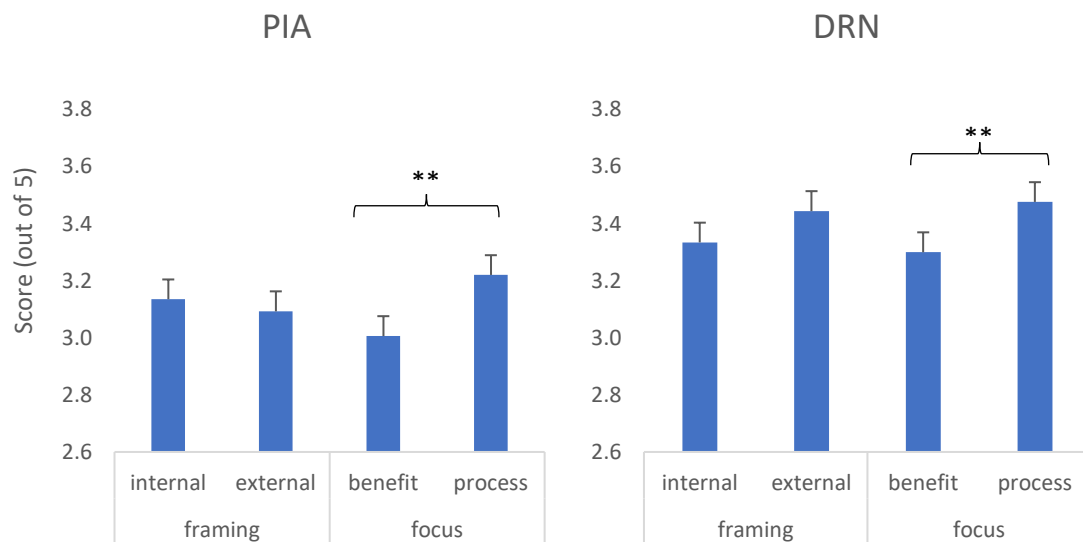
**Figure 4: Responses to reading the detailed page of information about the relevant debt solution.**

We compared responses to the detailed information by whether participants saw the internal versus external locus of control framing, and whether the solution was focused on its benefits or on the required process. In both the PIA and DRN versions of the study, there were no statistically significant differences in how likely people thought they would be to apply for the solution, how helpful they thought the solution would be, how well they thought

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they understood the solution, whether they thought it was the best path to take, how much they thought they would feel in control of their finances, or how likely they were to feel a positive emotion in response. There were also no significant interactions between the two manipulations. This null result also continued to hold when a more stringent exclusion criterion was adopted (less than 30 seconds reading time). In short, this analysis produced no support for H3-H5.

However, some support for H4, which relates to the focus of the detailed information, emerged from the MCQs that tested comprehension of the solution. On average, participants in the PIA version answered 3.0 (SD 1.3) questions correctly out of five, while participants in the DRN question answered 3.3 (SD 1.3) correctly. As Figure 5 reveals, in both versions of the experiment correct answers were significantly more likely when the information focused on the process rather than the benefits of the debt solution.



**Figure 5: Correct answers to multiple-choice comprehension questions by condition.**

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We also checked back to see whether there was a relationship between how well people understood the solutions and how positively they responded to them. With the sole exception of how in control of their finances people would feel, all responses to reading the detail of the solutions were significantly higher for people who scored 4 or 5 out of 5 on the MCQs (Mann-Whitney-Wilcoxon,  $p < 0.05$  in all cases). Similarly, those who understood the solutions better were more inclined to feel positive emotions after reading the detail ( $\chi^2(2)$ ,  $p < 0.01$  in both cases).

One other notable aspect of these data was a low positive correlation between participants' MCQ scores and their previous answer to the question about how well they thought they understood the debt solution. For the PIA version, the correlation was just 0.11; for the DRN version it was 0.21. Hence, there was little relationship between how well people thought they understood the solution and how well they actually understood it.

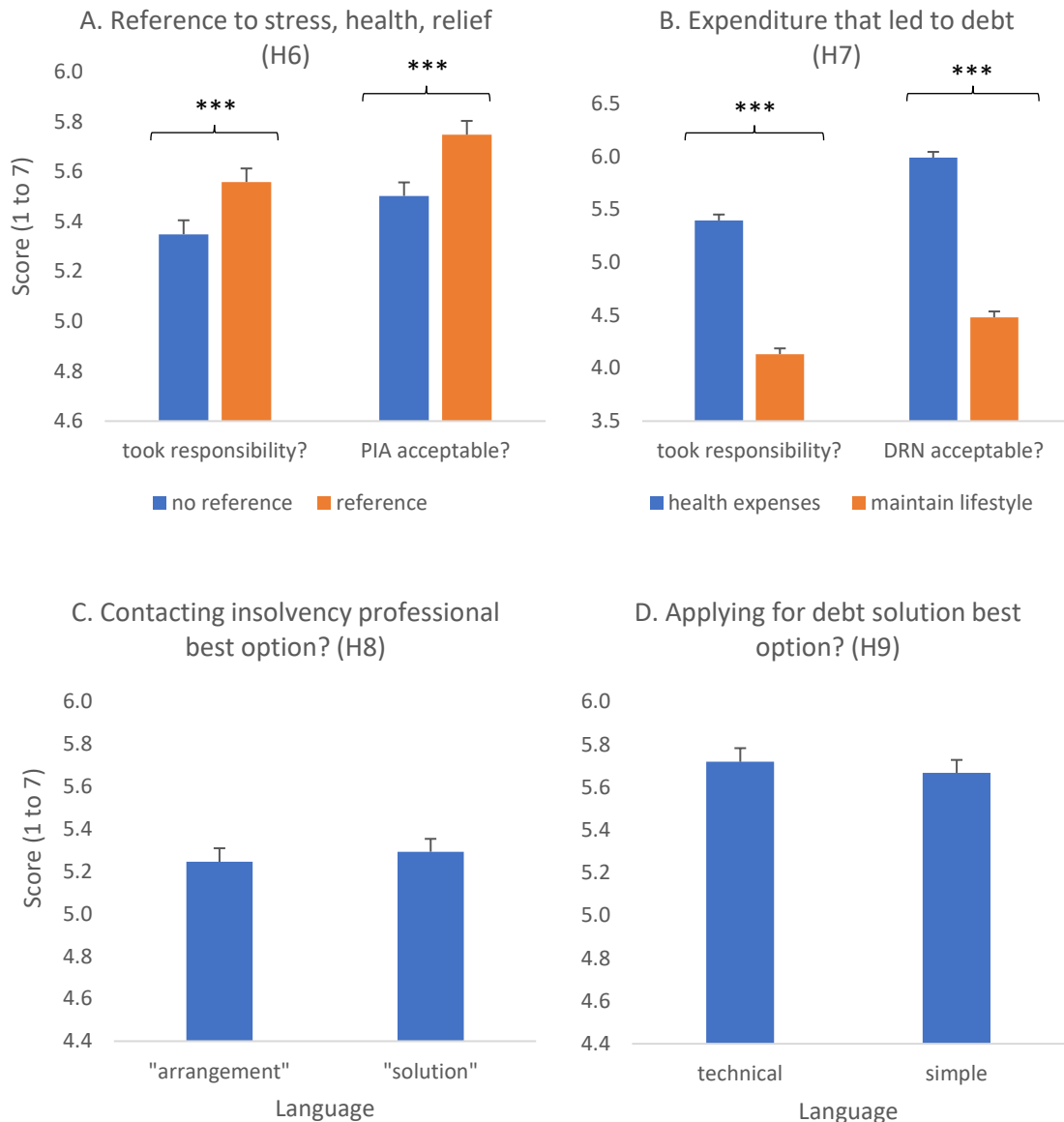
#### *Stage 4: Vignettes*

Data were pooled across the PIA and DRN versions of the experiment, since this stage was the same for each version. Participants (8%) who responded in less than 20 seconds per vignette were excluded from the analysis. Figure 6 shows responses to the different vignettes. The first two surrounded the idea of stigma. Vignette A probed the impact of using emotional language to describe the experience of debt (H6). Participants who read the vignettes with and without the emotional description judged the indebted individual to be equally to blame for the situation they found themselves in. However, those who read the emotional description, which included references to stress, health problems and relief at securing the debt solution, were significantly more inclined to think that the individual had taken responsibility for their situation and that the debt solution, in this case a PIA, was

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acceptable. Vignette B compared responses depending on how much the individual was to blame for the debt (H7), by comparing the same situation when debts accumulated following a redundancy either due to health expenses or to using credit to maintain lifestyle. This manipulation had a high impact: participants who read the health expenses version judged blame on a 1-to-7 scale to be almost two standard deviations lower (M 2.36, SD 1.61) than participants who read the lifestyle version (M 5.43, SD 1.61), with responses bunched on opposite sides of the midpoint. Participants who read the health expenses version were also more inclined to think that the individual had taken responsibility for their situation and that the debt solution, this time a DRN, was acceptable. Mean scores were all above the midpoint of the scale.

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**Figure 6: Responses to vignettes by condition.**

Vignettes C and D were those centred on use of language. The two versions of Vignette C did not differ regarding whether contacting an insolvency professional was judged to be the best option depending on whether the goal was to seek an “arrangement” with lenders or a “solution” to problem debt, contrary to H8. Similarly, the two versions of Vignette D found no support for H9, as whether technical or more simple language was used did not alter whether a debt solution was seen as the best option.

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### *Individual differences – psychological scales*

We examined whether any of the findings above were related to respondents' financial wellbeing, financial efficacy, or economic locus of control, as measured towards the end of the study.

Financial wellbeing was measured on a scale from 0 to 100, with most people expected to score around the middle of the scale. Financial wellbeing for the PIA sample was normally distributed with mean 50.8 (SD 11.5). Exploratory analyses found that the main results reported above were similar for participants with low financial wellbeing (a score of below 50). This is important for verifying the validity of results obtained in a hypothetical study with a representative sample, given that many people in debt in the real world are likely to have low financial wellbeing. One minor exception concerned how the detailed information was framed. Whereas those with high financial wellbeing did not differentiate between the external and internal frames ( $M = 4.6$ ,  $SD = 1.5$  vs.  $M = 4.7$ ,  $SD = 1.5$ , respectively) those with lower financial wellbeing reported that a PIA would help them feel more in control of their finances when the external frame was used compared to the internal frame ( $M = 5.0$ ,  $SD = 1.4$  vs.  $4.6$ ,  $SD = 1.5$ , respectively;  $p < 0.05$ ). Financial wellbeing among the DRN sample was similar ( $M = 50.6$ ,  $SD = 13.1$ ), but did not interact with the information frame.

Financial self-efficacy was measured on a scale from 6 to 24. The mean score for the PIA sample was 15 ( $SD = 4$ ) and for the DRN sample was 14.8 ( $SD = 4.3$ ). Exploratory analyses revealed no difference in the pattern of results when those high in self-efficacy (15 or above) were compared to those with lower self-efficacy. Again, this suggests that our results generalise across people with different financial experience.

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Economic locus of control was measured on a scale from 1 to 7, with scores above 4 indicating an external locus of control and scores below 4 indicating an internal locus of control. The majority of both groups (78.9% of the PIA sample and 78.4% of the DRN sample) reported an external locus of control. Again, exploratory analyses showed few differences in the pattern of our main results. However, the minority of those with an internal locus of control ( $n = 147$ ) seemed to benefit from externally-framed information. Those with an internal locus of control reported they would feel greater control after reading the externally-framed information than internal ( $M = 5.1, SD = 1.5$  vs.  $M = 4.5, SD = 1.6, p = .008$ , respectively) although there was no difference for those with an external locus of control ( $M = 4.7, SD = 1.5$  vs.  $M = 4.7, SD = 1.5; p = .923$ ).

#### *Individual differences – socio-demographic background*

The patterns in the primary results were unaltered by adding socio-demographic characteristics to statistical models as controls. Perhaps unsurprisingly, participants with higher educational attainment in the PIA version were better able to identify a PIA as the appropriate solution (55.5% of those with at least a degree vs. 39.8% of those without;  $p < 0.01$ ) as were those in higher social grades compared to lower (55.7% of the AB group vs. 45.2% of C1C2 and 38.5% of DE;  $p = 0.05$ ). However, importantly, the decision trees benefited all groups.

In the DRN sample, there were no effects of education or social grade on the likelihood of identifying the DRN as appropriate, but older participants performed worse than younger ones (57.7% of those under 40 vs. 48.0% of those aged 40 to 60 and 39.7% of those over 60;  $p < 0.001$ ). Further analyses suggested that the decision trees may not have helped older respondents to the same extent as they did younger ones. Social grade mattered for

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perceived control over finances if a DRN was taken, with the lower grades (C1C2 and DE) perceiving greater control than the AB grade ( $M = 5.5, SD = 1.2$ ;  $M = 5.5, SD = 1.2$ ;  $M = 5.1, SD = 1.3$ , respectively;  $p = .012$ ).

In both samples, men perceived less control over their finances if they were to take a solution compared to women (PIA:  $M = 4.6, SD = 1.5$  vs.  $M = 4.9, SD = 1.4$ , respectively;  $p < 0.05$ ; DRN:  $M = 5.2, SD = 1.3$  vs.  $M = 5.6, SD = 1.1$ , respectively;  $p < 0.001$ ) as did younger participants compared to older ones (PIA:  $M = 4.7, SD = 1.4$  for those under 40 vs.  $M = 5.0, SD = 1.4$  for those over 60;  $p < 0.01$ ; DRN:  $M = 5.2, SD = 1.3$  for those under 40 vs.  $M = 5.6, SD = 1.2$  for those over 60;  $p = 0.001$ ).

Gender and age also mattered for responses to the vignettes, suggesting greater stigma of debt solutions among men and those aged under 40. Compared to women, men judged the protagonist of the first PIA vignette to be more blameworthy ( $M = 3.5, SD = 1.8$  vs.  $4.1, SD = 1.7$ ;  $p < 0.001$ ) and to have taken less responsibility ( $M = 5.5, SD = 1.3$ ;  $M = 5.3, SD = 1.4$ ;  $p < 0.01$ ) and they judged the PIA to be less acceptable ( $M = 5.7, SD = 1.3$ ;  $M = 5.5, SD = 1.4$ ;  $p < 0.05$ ). Younger participants judged the character as having taken less responsibility ( $M_{<40} = 5.2, SD = 1.3$ ;  $M_{40-60} = 5.4, SD = 1.4$ ;  $M_{60+} = 5.6, SD = 1.4$ ;  $p < 0.001$ ) and the solution to be less acceptable ( $M_{<40} = 5.4, SD = 1.4$ ;  $M_{40-60} = 5.6, SD = 1.4$ ;  $M_{60+} = 5.7, SD = 1.4$ ;  $p < 0.01$ ). On Vignettes 3 and 4, younger participants were less likely to judge contacting an insolvency professional to be the best solution for debtors ( $M_{<40} = 5.2, SD = 1.4$ ;  $M_{40-60} = 5.3, SD = 1.6$ ;  $M_{60+} = 5.3, SD = 1.8$ ;  $p = .008$ ;  $M_{<40} = 5.3, SD = 1.4$ ;  $M_{40-60} = 5.7, SD = 1.2$ ;  $M_{60+} = 5.9, SD = 1.2$ ;  $p < 0.001$ , respectively).

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## Discussion

The results of this study provide clear support for introducing the debt solutions via decision trees instead of via a table of information. The decision trees improved the ranking and identification of appropriate solutions when the target webpage was viewed briefly as one of four searched for webpages and when it was viewed more carefully by participants who had been explicitly asked try to identify the appropriate solution. In the latter case, the effect was large: the decision trees comfortably outperformed the table. Although we found no difference in the ability to identify the most appropriate debt solution between the one-step and the three-step decision trees, the three-step tree was more likely to be used by participants. It may come as some surprise that such apparently trivial differences in the format of presenting information on webpages can have such a large impact on how that information is understood, but our findings were hypothesised based on previous work in behavioural science that has demonstrated similar beneficial effects of using decision trees (Green and Mehr, 1997; Martignon et al., 2003).

In broad terms, we did not find differences in responses based on whether solutions were presented in terms of an external (“debt can be overwhelming – but we can help”) or internal (“debt can be challenging, but you can take control”) locus of control. However, the analysis of individual differences suggested that describing a PIA via the external locus of control was more likely to benefit those with lower financial wellbeing. Furthermore – and counterintuitively – the minority of those with an internal locus of control perceived greater control after reading externally-framed information, with no effect on those with an external locus of control.

Comprehension of the debt solutions was straightforwardly improved by structuring information around the process, rather than the benefits of engaging with them. This finding

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is in keeping with previous research on the narrative processing of information (Lusardi et al., 2015). Improving comprehension is also vital. Both PIAs and DRNs were generally viewed positively by most participants as solutions to the scenarios we presented. However, the positive response was always stronger among those who understood the solutions better (based on an objective test).

It is often said that indebtedness carries with it substantial social stigma. This study generated clear evidence that this is indeed the case. Firstly, despite the hypothetical nature of the study, participants described strong emotions when asked to list how the scenarios would make them feel, including shame. Secondly, responses to the vignettes that did or did not describe the emotional state of the individual in debt, or manipulated the degree to which they had been the authors of their own misfortune, had strong impacts on whether people thought the debtor had taken responsibility and whether the debt solutions were acceptable. Evidence for stigma was stronger among men and younger people. One implication of these findings is the need to be careful with language surrounding descriptions of debt solutions to ensure that it does not trigger a sense of stigma. Recognising the emotions that accompany indebtedness and avoiding any language that implies blame are both likely to increase engagement. A further indication that language matters was the more positive initial response to the DSA, which in this case was related to the label more than the detail of the solution.

Finally, our findings show that the promotion of these debt solutions is currently hampered by the ISI's lack of recognition. The agency is young and is yet to occupy part of the mental space that already contains established and trusted public service brands. Although the present study demonstrates that people who encounter descriptions of the available debt solutions view them positively, and that these descriptions can be improved further to

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enhance the positive response, it does not show how one might improve general familiarity with ISI and its work.

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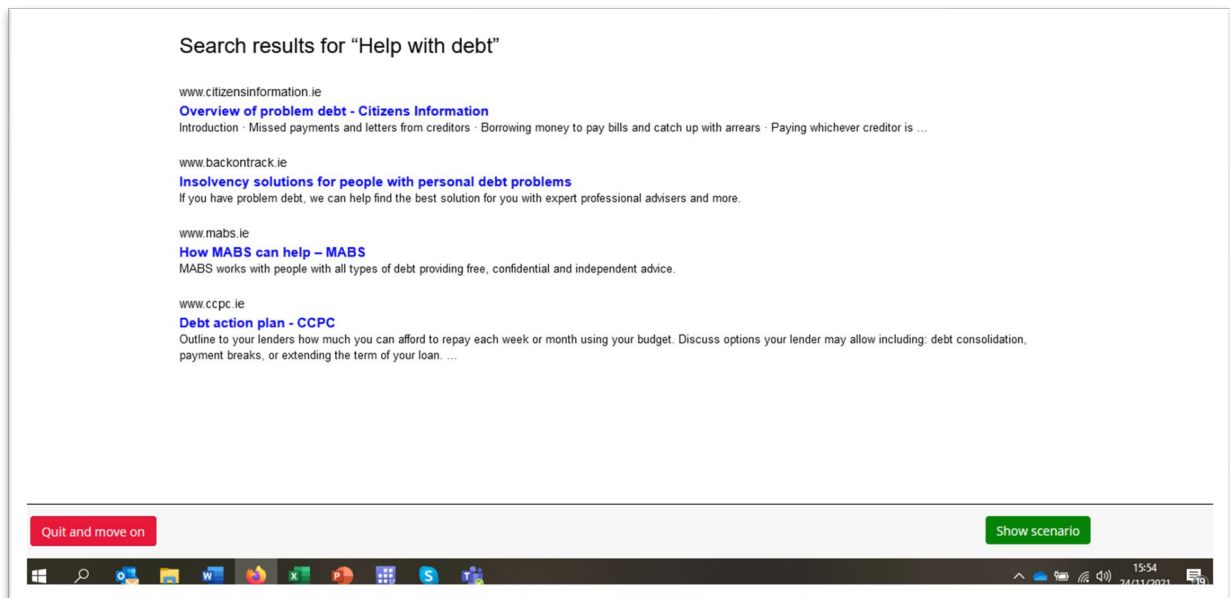
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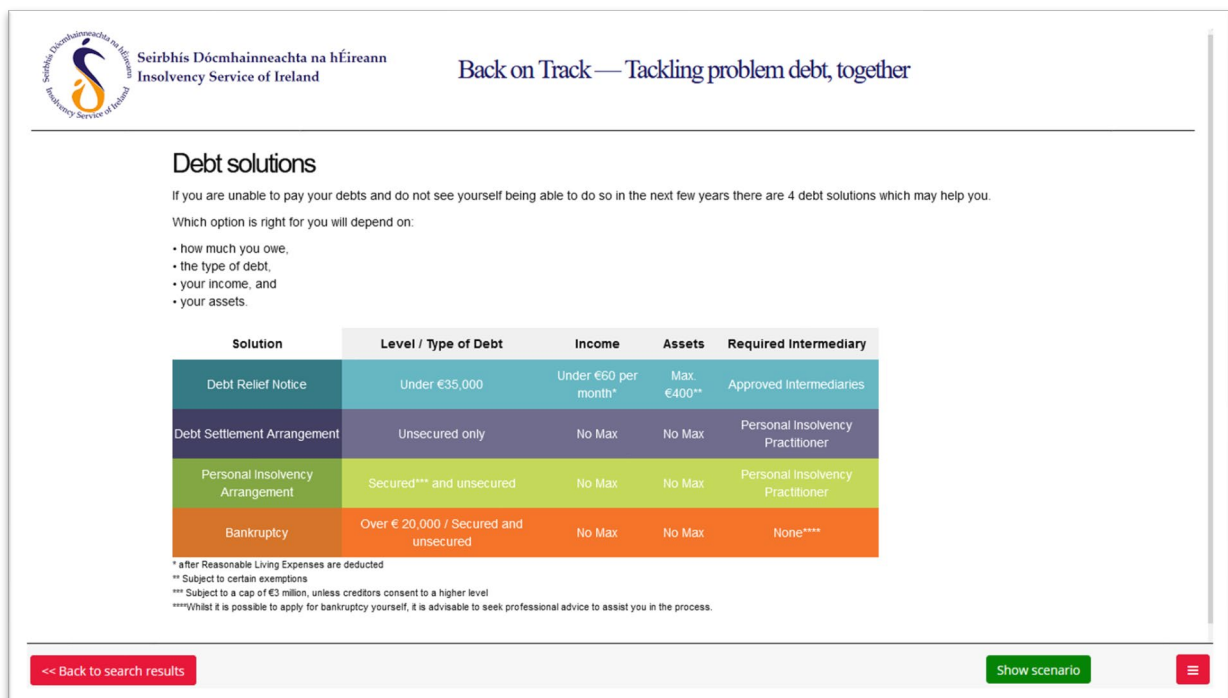
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## Appendix A

This appendix shows the main screen deployed in the initial search task using mocked-up webpages. The following was the initial search screen. The order of the links was randomised between participants.

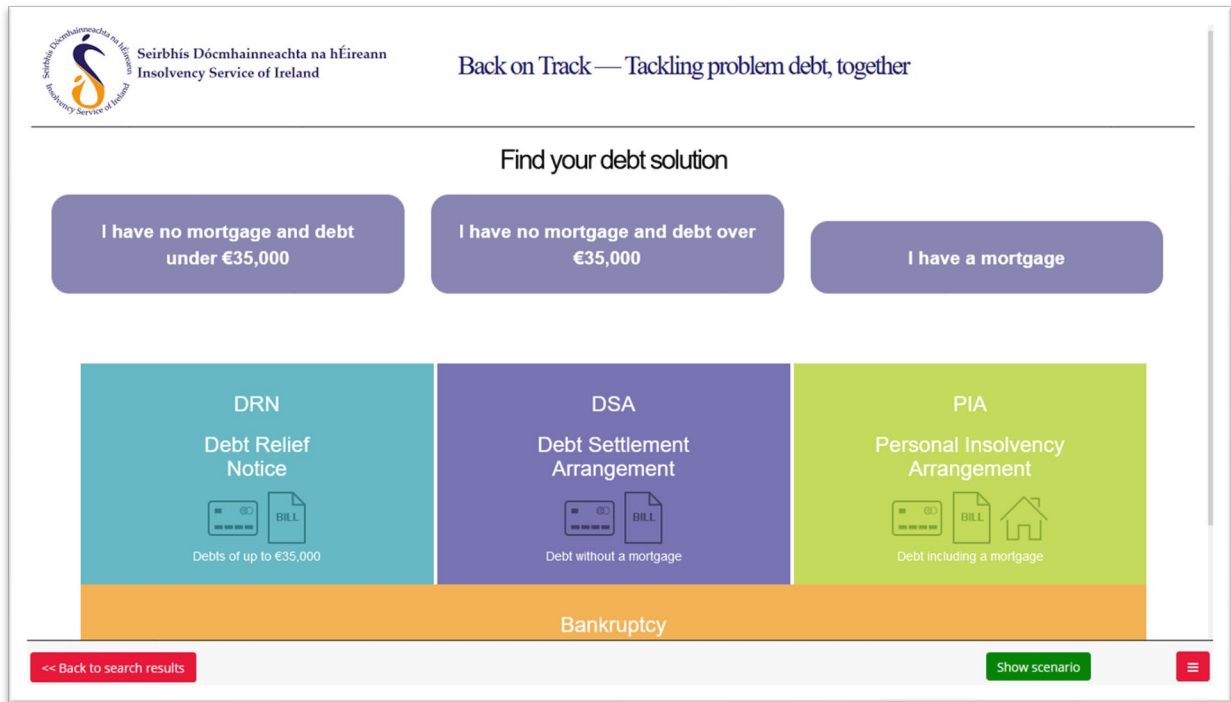


The control condition ISI webpage was taken from the contemporaneous real ISI webpage:



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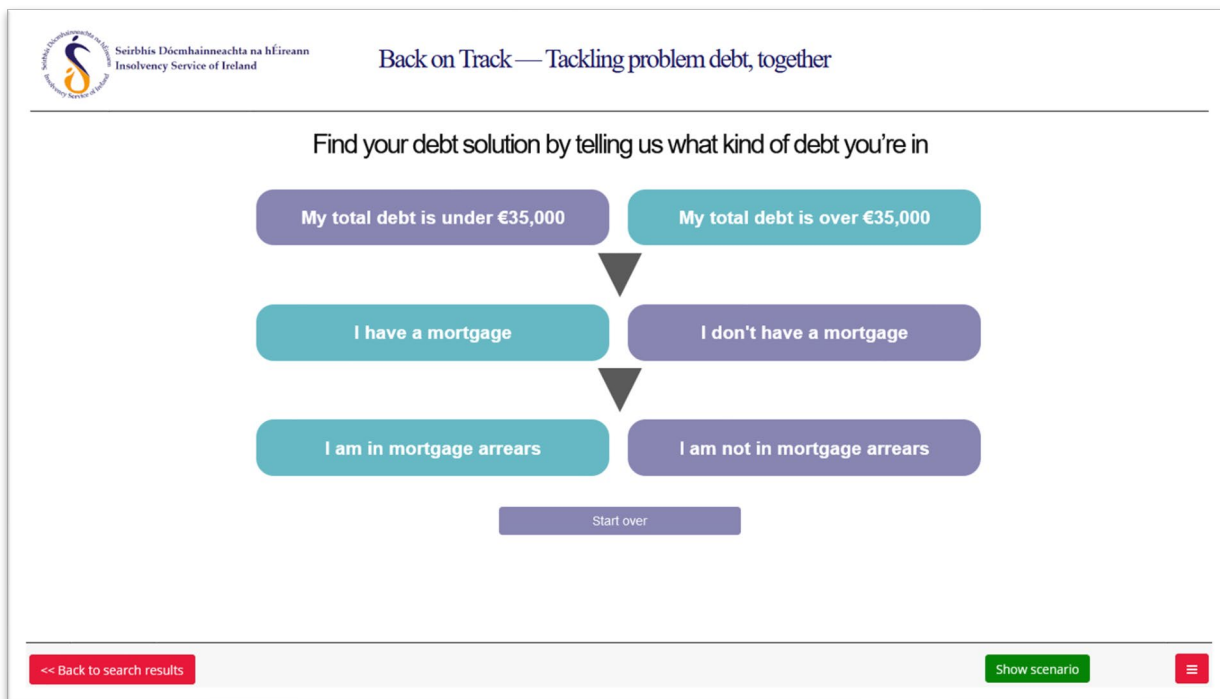
The One-step Tree condition was taken from the contemporaneous real backontrack.ie webpage. It invited the reader to click on the button that matched their situation, before providing further detail about the relevant solution the same information as was in the table in the control condition. An overview of all debt solutions was also visible:



The Three-step Tree condition invited readers through a series of three steps before indicating to the user which debt solution they would be eligible for providing the same information as was in the table in the control condition:

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## Appendix B

Webpages providing detailed descriptions of solutions focused on the benefits of the solution or the process of obtaining it. This example describes the DRN, with an “external” frame, focussing on the benefits:

Gorilla

https://app.gorilla.sc/task/5149222

Spotify SAM Scholar Trinity Lib SIR Gmail Drive OSF Tracker Intranet Connected Gorilla Trinity e-mail RADT Papers RTEAG

**What is a DRN?**

A Debt Relief Notice (DRN) is a way for you to get help with your finances if you have unsecured debts (e.g. personal loan, credit card debt, utility bills) of under €35,000 that you cannot repay, and you have no major assets (e.g. no mortgage).

While you have a DRN you only have to repay what you can reasonably afford, and any remaining debt is written off after 3 years.

**What are the benefits for me?**

(1) Protection from your creditors (those you owe money to)

To apply for a DRN you make an appointment with a personal advisor called an “Approved Intermediary”. Your Approved Intermediary will look at all the details of your financial situation and complete an application to the Insolvency Service of Ireland (ISI) for you. If you meet the requirements and you are granted a DRN, your Approved Intermediary will deal with your creditors on your behalf. Your creditors will not be allowed to contact you directly about unpaid debts.

(2) A reasonable standard of living guaranteed

While you have a DRN, you are entitled to keep reasonable living expenses before having to make any payments. Your Approved Intermediary will not tell you how to spend this money.

(3) Get back on track financially

A DRN will last for up to 3 years. Your DRN can also finish early if you pay off 50% of your debts. When your DRN ends all the debts named in your DRN will be completely written off – you will be solvent. This could make potential lenders more likely to give you credit in future.

**How much will it cost me to apply?**

The service is completely free. The ISI does not charge an application fee and Approved Intermediaries cannot charge a fee for their assistance.

**How do I find out more?**

Contact details for Approved Intermediaries appointed by the ISI can be found on the ISI website or by calling the ISI information helpline.

Next      Show scenario

This page describes the PIA, with an “external” frame and a focus on the process:

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**What is a PIA?**

A Personal Insolvency Arrangement (PIA) is a way for you to get help with your finances if you have both secured debt (e.g. mortgage) and unsecured debt (e.g. personal loan) that you cannot repay.

A PIA is a formal agreement you make with your creditors that will write off some of your unsecured debt and restructure any remaining secured debt. In most cases you can remain in your home.

**What's the process?**

(1) Apply through a Personal Insolvency Practitioner (PIP)

To apply for a PIA you first make an appointment with a personal advisor called a Personal Insolvency Practitioner (also known as a PIP). Your PIP will look at all the details of your financial situation and make an application to the Insolvency Service of Ireland for you. If you meet the requirements you will obtain a Protective Certificate from the Court. This means your creditors will not be allowed to contact you directly about unpaid debts, your PIP will deal with them on your behalf.

(2) Come to an agreement with your creditors

Your creditors must agree on a PIA plan proposed by your PIP. A PIA is a legally binding arrangement, meaning there are no surprise changes such as additional interest or charges added along the way.

(3) Comply for the agreed period

If you come to an agreement, you will repay a percentage of your overall debts that you can afford in one monthly payment, over an agreed period of time (anything from a few months up to 7 years). During this period you are entitled to keep an amount for reasonable living expenses. Your PIP will not tell you how to spend this money.

(4) Complete the process

Once your final agreed monthly repayment is made and you have kept to the terms of the arrangement, your remaining secured debt will be restructured and any remaining unsecured debt will be written off – you will be solvent. This could make potential lenders more likely to give you credit in future.

Next Show scenario

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## Appendix C

Following the detailed descriptions of the debt solutions, participants answered five multiple choice questions (MCQs) to test their comprehension of the solutions. Correct answers are highlighted in bold. Order of answers were randomised where appropriate.

In the PIA version of the study, participants answered the following set of five questions:

- Can you get a PIA if you have unsecured debt (e.g. personal loan) as well as being in mortgage arrears?
  - **Yes**
  - No
  - Yes, but only if your total debt is under €35,000
- Which of these is the **first** step you should take towards getting a PIA?
  - **Contact a Personal Insolvency Practitioner (PIP)**
  - Complete an application to the Insolvency Service of Ireland (ISI)
  - Hire a solicitor
  - File for bankruptcy
- If you are granted a PIA, there are rules about how you can and cannot spend money allocated to you for living expenses.
  - True
  - **False**
- If you are granted a PIA, what happens at the end of the agreement period (provided you have kept to the terms of the agreement)?
  - All your remaining debts are written off
  - **Your secured debt (i.e. mortgage) is restructured and any other debts are written off**
  - You are liable for any remaining debt
  - Your situation is reviewed and you may apply for a new PIA if necessary
- Is there a fee to apply for a PIA?
  - No, the service is completely free to everyone
  - **There is no fee to apply to the ISI but your PIP may charge a consultation fee (which is waived if you qualify for the Abhaile scheme)**
  - PIPs do not charge for their services but there is a fee to apply to the ISI (which is waived if you qualify for the Abhaile scheme)

In the DRN version, participants answered the following set of five questions:

- Can you get a DRN if you have a mortgage?
  - **No**
  - Yes
  - Yes, as long as you are not in mortgage arrears
- Which of these is the **first** step you should take towards getting a DRN?
  - **Contact an Approved Intermediary**
  - Complete an application to the Insolvency Service of Ireland (ISI)
  - Hire a solicitor
  - File for bankruptcy
- If you are granted a DRN, there are rules about how you can and cannot spend money allocated to you for living expenses.
  - True
  - **False**
- If you are granted a DRN, what happens at the end of the 3 year period (provided you have kept to the terms of the agreement)?
  - **All your remaining debt is written off**
  - You must pay 50% of any debt that remains
  - You are liable for any remaining debt.
  - Your situation is reviewed and you may apply for a new DRN if necessary.

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- Is there a fee to apply for a DRN?
  - **No, the service is completely free**
  - There is no fee to apply to the ISI but your Approved Intermediary may charge a fee
  - Approved Intermediaries do not charge for their services but there is a fee to apply to the ISI
  - There is a fee to apply to the ISI and your Approved Intermediary may also charge a fee

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## Appendix D

This appendix contains the complete text of the four vignettes deployed in Stage 4 of the study. Each vignette had two versions (Control and Treatment) and participants were randomised to see one or the other. Text that differs between the two versions is underlined. *Vignette A (emotional detail)*

[Control]

Paul was due to retire and decided to buy a second house to rent out as an additional source of income. Initially the rent was paying the mortgage. But when the recession hit he lost his tenant, the mortgage repayments went up, and his pension dropped. He began running up credit card debt paying for the mortgage.

The bank sent Paul a letter asking him to sign the rental house over to them, but his solicitor advised him not to do this as he would still be €180,000 in debt. Instead they suggested he talk to a Personal Insolvency Practitioner, and he managed to get a Personal Insolvency Arrangement. As part of the arrangement the rental house is gone, as well as Paul's credit card bill.

[Treatment]

Paul was due to retire and decided to buy a second house to rent out as an additional source of income. Initially the rent was paying the mortgage. But when the recession hit he lost his tenant, the mortgage repayments went up, and his pension dropped. He began running up credit card debt paying for the mortgage. Paul became very stressed, to the point it was affecting his mental and physical health.

The bank sent Paul a letter asking him to sign the rental house over to them, but his solicitor advised him not to do this as he would still be €180,000 in debt. Instead they suggested he talk to a Personal Insolvency Practitioner, and he managed to get a Personal Insolvency Arrangement. As part of the arrangement the rental house is gone, as well as Paul's credit card bill. The relief for Paul has been huge, and his health has improved.

*Vignette B (blame)*

[Control]

Carol is a widow, living alone. She had been working, but while she was out sick her company announced redundancies. She was one of the people let go. She had credit union and credit card debt of about €19,000. This debt, plus the expense of the hospital visits, scans and tests put her under real financial pressure.

After almost five years she reached out to an Approved Intermediary and managed to get a Debt Relief Notice. She only has to pay back what she can and once the agreement period is over she will be debt free.

[Treatment]

Carol is a widow, living alone. She had been working, but then her company announced redundancies. She was one of the people let go. She wanted to maintain her lifestyle and so started using credit cards to bridge the gap in her income. She ended up with debt of about €19,000, which put her under real financial pressure.

After almost five years she reached out to an Approved Intermediary and managed to get a Debt Relief Notice. She only has to pay back what she can and once the agreement period is over she will be debt free.

*Vignette C (arrangement/solution)*

[Control – arrangement with lenders]

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Donna lives off the lone parent's allowance. Money is tight. Over the years she has built up debt with the credit union and her bank, and cannot make the payments. She has been receiving many letters looking for money but has nothing left to give.

A friend of hers suggested getting in touch with an insolvency professional to see if they can help her come to an arrangement with the credit union and the bank, but Donna is wondering would it be better to explore her other options first.

[Treatment – solution to debt problem]

Donna lives off the lone parent's allowance. Money is tight. Over the years she has built up debt with the credit union and her bank, and cannot make the payments. She has been receiving many letters looking for money but has nothing left to give.

A friend of hers suggested getting in touch with an insolvency professional to see if they can help her find a solution to her debt problem, but Donna is wondering would it be better to explore her other options first.

*Vignette D (technical/simple language)*

[Control – technical]

Josephine and her husband have been in arrears for a good few years on both their mortgage and their credit union loan. They try to pay a little off each to keep everyone happy, but keep getting calls, and the bank sent a letter threatening them with repossession.

They heard about a debt solution that would allow them to come to an agreement with their creditors. The agreement would eventually write off their unsecured debt and restructure their secured debt. They aren't sure if it's the right path to go down.

[Treatment – simple]

Josephine and her husband have been in arrears for a good few years on both their mortgage and their credit union loan. They try to pay a little off each to keep everyone happy, but keep getting calls, and the bank sent a letter threatening them with repossession.

They heard about a debt solution that would allow them to come to an agreement with those they owe money to. The agreement would eventually write off their debt with the credit union and restructure their mortgage. They aren't sure if it's the right path to go down.

## Appendix E

The locus of control scale was based on Furnham's Economic Locus of Control Scale (1986), but was abbreviated to 6 responses to fit with the overall length of the study.

To what extent do you agree with the following statements?

- When I get what I want, it's usually because I worked hard for it
- My life is determined by my own actions
- It's not always wise for me to save because many things turn out to be a matter of good or bad luck
- Becoming rich has nothing to do with luck
- Although I might have ability, I will not become better off without appealing to those in positions of power
- I feel that my finances are mostly determined by powerful people

Response options:

Strongly disagree - Moderately disagree - Slightly disagree – Undecided - Slightly agree - Moderately agree - Strongly agree