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Debt and Overindebtedness: Psychological Evidence and its Policy Implications

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This paper reviews psychological studies of real-life use of credit, debt, and overindebtedness, with the aim of making policy recommendations that could reduce the damage done by debt to both individuals and society. The overall level of debt in society is heavily influenced by the level of economic inequality and social insecurity, and no psychological factor can prevent debt if excessive socioeconomic disadvantage is not addressed. Within that constraint, psychological precursors to debt problems, psychological impacts of debt, and psychological strategies to help people get out of debt can be identified. Research results in these areas are used to formulate a series of recommendations that could help mitigate debt problems.

This review takes a psychological approach to household debt, and in particular the kinds of debt that become problematic for individuals and those they interact with, either personally or commercially. Throughout, the aim is to derive recommendations for action to reduce the problems debt creates for individuals and societies, by reducing the number of people who go into debt and the extent of debt they build up, and making it more likely that they will emerge from debt. Realistically, some of these policy recommendations are unlikely to be adopted without substantial political and social pressure. The recommendations are identified in the body of the review, as the evidence supporting them is presented. However, several strands of research lead in similar directions, so the review ends with a consolidated list of the recommendations. To enable easy cross reference between the final list and the supporting evidence, the recommendations are numbered.

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To propose recommendations for action is to beg the question, action by whom? Almost all the recommendations in this review are primarily addressed to governments, or regulatory bodies that are usually arms of government. However, in most cases the final action is not expected to be taken by government itself, but by other actors constrained, incentivized or encouraged to act by governments. These actors include lenders and other creditors, advice agencies, educators, and to a limited extent debtors themselves. The relevant actors are identified in the closing summary of recommendations.

Policy recommendations in relation to debt are needed because debt can be a problem for both individuals and societies. They are especially urgent at the moment. This review is being written at the height of the Covid-19 pandemic. Many of the factors to be discussed below as increasing the risk of debt problems are going to be accentuated by the pandemic and its consequences. But policy towards debt cannot ever be simple, because the availability of credit is usually regarded as an essential function of a modern economy. Taking credit can be an advantage to individuals: few of us would be able to buy a house, for example, without the aid of a mortgage loan. Many people use credit throughout their lives without ever running into problems. But in a significant number of cases, debts become problematic: Sometimes people's circumstances change, so that a debt that was perfectly manageable when it was incurred becomes unmanageable. Sometimes debts are taken on unwisely, or loans are offered inappropriately: to take an extreme example, the great recession that began in 2007 was triggered by the inappropriate marketing of mortgage loans in the United States. Furthermore, offering credit to consumers is profitable. Banks, credit card firms, online lenders, and door-to-door moneylenders all make money by lending to consumers, and they are inevitably incentivized to lend more. It is unlikely that the strategy that maximizes lenders' profits will maximize borrowers' welfare, so it is likely that regulation will be necessary to limit harm to consumers.

Although the psychology of debt is a relatively new and specialized field, it already encompasses more literature than be covered in one paper. Because the present review is oriented towards policy change, it focuses on evidence that is most relevant to policy, although that does include dealing with some prominent strands of research that have been invoked in policy discussion, but in my view do not yet offer any basis for policy recommendations. Ranyard et al. (2017) give a fuller introduction to the psychology of debt and credit in general, while Hershfield et al. (2015) have reviewed the specific case of revolving debt (mainly, credit cards). Zinman (2015) reviews consumer debt from an economics perspective.

The plan of the present review is as follows. It begins by considering the scale of debt as it exists in modern societies, and the way in which we should define debt when considering it psychologically. Second, I present the leading theoretical account of debt within the psychology of decision-making, in order to show why it is of limited direct use in formulating policy, although it has helped frame some of the empirical research. I then turn to the more empirical literature. Debt is an economic and social problem, with multiple, mutually correlated causes, and any psychological analysis must take the economic and social context into account. Accordingly, data on the social and economic background to individual debt are first briefly reviewed. The available policy-relevant psychological research is then marshaled in relation to three questions: How do people get into debt? What are the psychological impacts of being in debt? And how do people get out of debt? Finally, I collect and review my policy recommendations.

This structure reflects the conceptual approach I take in this review. I see social and economic circumstances as setting boundary conditions: they largely determine how much problematic debt there will be in any particular society at any particular time. Psychological processes, however, will affect who falls into debt problems, how bad the effects of debt on people are, and how quickly and easily people are able to escape from debt. It is obvious that government policy can affect the social and economic background, but I argue that it can also affect the way individuals behave. In this way, policies that are consistently well chosen, from a psychological perspective, can also affect the total debt problems occurring in a society.

The Definition and Scale of Debt in Modern Societies

This review deals almost entirely with household debt in advanced capitalist economies. It does not deal with business debt, although that also has its psychological aspects (see, e.g., Greig et al., 2019). And there are certainly household debt problems in less developed nations and those with different economic systems: indeed, the consequences of unmanageable debt are probably most severe for individuals in the poorest countries. However, it is only in developed countries that substantial research into the psychology of debt has been carried out. Although it is likely that some aspects of debt psychology are the same regardless of the economic system and level of development of a society, others may not be, so extrapolation to other kinds of economy requires caution. Uncertainty on this issue is alleviated by the fact that research in countries at an emerging level of development is increasingly available (e.g., Amit et al., 2020; de Matos et al., 2019), and so far its results tend to parallel those found in countries with more fully modernized economies.

What is the scale of debt in a typical modern society? From a technical economic or accounting point of view, a debt exists whenever one person or organization is under a legal or moral obligation to pay money to another, now or in the future. Consumer or household debt, which is the concern of the present review, is that part of such debt that is owed by individuals and households, rather than firms, other organizations, or governments. Much of such debt (though not all) is captured by government financial statistics. Karwowski et al. (2020, Table 2) used

OECD data to compare household debt across a sample of 17 advanced economies during the 10 years up to 2007, before the effect of the recession that began in that year. They report that mean household debt varied from 46% of mean household disposable income (in Greece) to 253% (in Denmark). These differences no doubt reflect differences in the financial institutions between countries, but also national variations in credit-use culture (discussed, e.g., by Gaganis et al., 2020). To examine the makeup of that debt, I will take the case of the United Kingdom, which is a medium-sized developed nation and stands fifth highest in Karwowski et al.'s table, with a debt to disposable income ratio of 127%. UK official statistics distinguish between debt secured on dwellings, mostly in the form of house mortgages, and "consumer credit," debt that is either unsecured or secured against something other than (and probably less secure than) dwellings. Psychologically, these two kinds of debt are likely to be quite different, particularly along the axis of deliberative versus spontaneous decision-making (cf. Evans, 2008; Fazio, 1990). Taking on a house mortgage is a one-time, large decision, likely to be taken highly deliberatively and often with expert advice, and hedged about with regulations. Consumer credit can involve many smaller decisions, some perhaps taken with little thought, and when debt problems emerge, it is usually with this category, at least in the first instance. Most of the psychological literature has therefore been concerned with consumer credit. This only accounts for a minority of total household debt: in January 2020, total lending to individuals in the UK stood at £1.680tn,[1] and £1.454tn of this (87%) was secured on dwellings (Bank of England, 2020, Tables A & D). That still leaves a very substantial total of mean household unsecured debt which, taking Karwowski et al.'s figures, would be around 17% of mean household disposable income in the UK. It goes without saying that the actual incidence of debt varies greatly across households, so that many households will have unsecured debt levels that are a high proportion of their disposable income or even exceed it.

However, not all debt is problematic, and indeed, not everything that is counted as debt in technical terms will even be recognized as debt by individual consumers. A mortgage that has not yet been redeemed counts as a debt, and so does a utility bill that has been received but not yet paid; but if the consumer is in a position to keep up the regular mortgage payments and to pay the bill within the time allowed, that is not a problem either for the consumer or for the creditor. As a result, in everyday speech people do not define debt in the same way as accountants. Like many other ordinary-language concepts, including economic concepts such as money (Snelders et al., 1992), debt as it is understood by ordinary consumers is ill-defined. Different kinds of financial arrangements, all of which are unambiguously debts in the technical sense, are understood as being debt to different degrees (Dearden et al., 2010). Furthermore, the flexibility in the

[1] £1 exchanged for between $1.27 and $1.34 US during November 2019 to January 2020.

definition of debt allows people to use self-serving definitions. Although attitudes to debt vary between individuals, almost all consumers regard being in debt as undesirable to some extent (e.g., Lea et al., 1993), and accordingly people frequently define debts that they hold as not being debt at all. In this situation, it is useful to make a distinction between three different consumer understandings (Lea, 1999): "credit" (an arrangement between a willing lender and a willing borrower, where the agreement is being fully honored on both sides); "debt" (a situation where a payment of some sort that should have been paid has not been); and "crisis debt," "problem debt," or "overindebtedness" (a situation where the consumer has debts that cannot be repaid at all, or can only be repaid with disproportionate hardship, given his or her income and wealth). This review is primarily concerned with problem debt, but the other categories are relevant because for some people they are stages on the way to crisis debt.

National statistics of consumer credit cannot distinguish between credit, debt, and problem debt as I have just described them. However the sheer size of the numbers involved, and the inevitable variability between households, imply that even in completely "normal" times macroeconomically, at least some people would have problems with debts, and in times of recession or other economic crisis, many people will. In practice, times are rarely normal. At the beginning of 2020, they had scarcely returned to normal macroeconomically following the financial crash that began in 2007, and the worldwide pandemic of 2020 has now created further macroeconomic turbulence (and, anecdotally at least, some unexpected changes to both governmental and individual attitudes to debt). Furthermore, ever since credit cards became widely available in most developed countries, commentators, practitioners, and researchers have been expressing concern about rising levels of debt problems among consumers, on the basis of both informal observations and the frequency of consumers seeking help with debt problems. Data on the effects of the Covid-induced recession that began in 2020 are not yet to hand, but as an example of the situation even before that, in 2019, Citizens Advice, the main broad spectrum advice agency in the UK, handled over 950,000 debt-related issues for over 340,000 clients in England alone, 21% of all the issues it dealt with (Citizens Advice, 2020). In a 2017 report, Step Change, a specialist UK debt advice charity, reported that 8.8 million people in Great Britain were using credit, and of these 1.1 million were using high cost credit sources such as payday and doorstep lenders (Step Change Debt Charity, 2017). Other stakeholders concerned about debt levels obviously include creditor organizations such as utility companies. The courts service are also concerned, because their systems are overloaded with large numbers of cases concerned with consumer debt, as creditors seek to recover debts from consumers who are, in the main, simply unable to pay (Mewse et al., 2010). Government departments have recognized overindebtedness as a serious social problem (Department for Business Enterprise and Regulatory Reform, 2007; Department for Business

Innovation and Skills, 2010a, 2010b). It is clear that substantial numbers of people have substantial problems with debt and are responding to them in substantially dysfunctional ways.

Psychological Theory of Debt: Intertemporal Choice

At its core debt is an economic concept and an economic phenomenon. But individuals' economic behaviors are underpinned by psychological mechanisms, and individuals' mental states are influenced by economic conditions (Lea et al., 1987). There is no reason why debt would be an exception, so we must expect debt to have both psychological causes and psychological consequences. Moreover, there are well-established psychological findings that are specifically relevant to debt. Going into debt is one variety of intertemporal choice: that is, the person deciding whether or not to take a loan is choosing between outcomes that will be delivered at different points in time. There is a substantial empirical literature devoted to how people behave when faced with this kind of choice. The general result is that intertemporal choice is the area where observed human behavior deviates most dramatically from the predictions of twentieth century neoclassical economic rationality theory, with its assumption that choices can be predicted by calculating what it would be in the chooser's best interests to do. By the standards of economic rationality, humans are appallingly bad at intertemporal choice (Ainslie, 1975, 1992), showing much greater preference for rewards that will arrive sooner than can be justified by a rational analysis. In quantitative terms, people often make choices as though they could secure interest rates on their savings of hundreds of percent; and in qualitatively terms, people show reversals of preference that should never occur according to neoclassical theory (Ainslie, 1992; Berns et al., 2007). Furthermore, as well as showing that the predictions from economic rationality theory are wrong, more modern, interdisciplinary, empirically driven approaches, whether under the name of economic psychology, behavioral economics, or experimental economics, have presented alternative accounts of intertemporal choice. The most widely discussed of these is an idea introduced by Ainslie (1975). Drawing on results from operant conditioning experiments, Ainslie argued that future rewards are discounted according to a hyperbolic function rather than the exponential function predicted from rationality considerations. Compared with exponential discounting, hyperbolic discounting leads to an overvaluing of immediate or short-term rewards and an undervaluing of the long term.

In referring to taking on debt as an intertemporal choice, it is important to recognize that it is not always a conscious or deliberate act. In terms of the three kinds of credit and debt discussed above, taking on credit often is a deliberate choice (although it may not always be a wise one, and it may be unduly influenced by marketing). We know a good deal about how people make such choices (Ranyard & Craig, 1995; Ranyard et al., 2006). Getting into debt, let alone problem debt, seems likely to be a very different matter—it might be a result of inertia in spending, inattention to one's financial state, or simply unavoidable circumstances; a particularly relevant route is the accumulation of charges and penalties on small borrowings that are not repaid on time, a procedure that is profitable for lenders (Heidhues & Koszegi, 2010). People choose this kind of debt only in the technical sense of "choice" that is used in theoretical microeconomic analysis, in which every economic action is described as a choice regardless of the level of awareness it involves (see, e.g., Simmons, 1974).

Despite the richness of the research literature on intertemporal choice, it does not provide a secure base for a policy-oriented investigation of the psychology of debt, for three reasons. First, most empirical studies of intertemporal choice are formulated in terms of a choice between receiving an amount of goods or money now (or soon), and receiving a larger amount later. That is not quite the situation faced by someone deciding whether to take on a debt. Second, most of the studies that show severe deviations from the predictions of rational choice theory use highly simplified experimental or questionnaire methods, in which clear choices are offered, involving well-specified amounts of money and periods of time (Chabris et al., 2008). It is not obvious that their results would carry over to the confused situations of everyday life. Indeed, Chabris et al. found only weak correlation between the discount rates they measured in the laboratory and real-life behavior, while some studies of real-life economic choices have suggested that even the basic irrationality of intertemporal choice found in the laboratory does not appear in the field (e.g., Andersen et al., 2014). Finally, a promising route to a psychology of intertemporal choice, including debt, has seemed to be to consider the tendency towards an irrational preference for immediate reward as a personality or attitudinal variable, usually called impulsivity or a lack of self-control. That terminology makes links with many other areas of psychological theory and practice; but the conceptual and psychometric coherence of the self-control construct is open to severe question (Strickland & Johnson, in press). Accordingly, while the apparent irrational preference for immediate reward, and individual differences in that preference, must play a part in the psychological analysis of debt, we need to look beyond them to give a complete account.

Three Questions about Debt

To arrive at policy recommendations, therefore, the present review starts from research that addresses the real-world experiences of debtors and creditors directly. A body of such research has grown up over the past 30 years. Much of it is informed by the fundamental theory of intertemporal choice, but it investigates the psychology of actual debtors and takes into account the social and individual circumstances in which debt occurs. Three questions have dominated psychological research in this tradition: How do people get into debt? What are the psychological impacts of being in debt? And how do people get out of debt? Although I will use these three questions to structure the bulk of the present review, there is some overlap between them. In particular, some of the psychological consequences of debt tend to accentuate factors that are associated with falling into debt, so that indebtedness becomes a self-perpetuating situation.

Psychological research into all three of the questions posed in this review depends on the participation of people who are or have been having problems with debt. Because debt is a distressing and stigmatized situation, participation rates are often low and may be selective. This was a serious problem in the pioneering survey research on the psychology of debt, which depended on voluntary participation and was plainly focused on individuals' debts (e.g., Lea et al., 1993, 1995; Mewse et al., 2010). However, such research is now being backed up by longitudinal panel research which gives much better coverage and leads to many of the same conclusions (e.g., Białowolski, 2019; Oksanen et al., 2015, 2016). For these reasons, I shall continue to make use of the earlier research in this review.

In reviewing the psychological processes involved in debt, it is important to bear in mind that the direction of causality between debt and the characteristics if individuals can rarely be determined, and indeed it may often be two way. Being depressed might lead you to make poor economic decisions, and so fall into debt; but equally, being in debt might well trigger depression. This problem is exacerbated when data depend on self-reports: Poor money management skills may be a cause of debt, but equally people who are in debt might conclude that their money management skills must be poor. Longitudinal studies may help resolve the direction of causality, but they are still relatively rare.

The Economic and Social Background to Debt

The three questions I have posed all concern individuals, and that is in the nature of a psychological approach. However, we must not lose sight of the fact that the level and prevalence of individual debt is strongly influenced by the kind of society people are in, their economic and social class within it, and the economic conditions of the time. As C. Walker, Burton et al. (2015) argue, we should not pathologize individuals as a way of avoiding facing societal problems. An approach to debt that focused narrowly on individuals and their decisions would be uninformative or even misleading.

At the socioeconomic level, debt is primarily a problem of poverty. Wherever individuals' economic circumstances have been considered, they have been found to be by a long way the most substantial correlates of debt, and particularly the most intractable debt. In cross-sectional studies, households with the lowest incomes are the most likely to be suffer debt problems (Atfield et al., 2016; Dearden et al., 2010; Lea et al., 1993, 1995; Mewse et al., 2010; Walks, 2013). That result is not always replicated in longitudinal studies (e.g., Oksanen et al., 2015), but this may be because in better economic times, people are more willing to take on credit, and this confuses the picture. The distinction between credit use, debt, and problem debt is important in considering income effects: higher income individuals frequently make use of credit, but they do so as a financial strategy rather than out of necessity, and are less likely to defer repayment and incur charges (Da Silva et al., 2018; Dick & Jaroszek, 2013; Stavins, 2020). The dependence of much research on voluntary participation must also be borne in mind: There might be a category of well-off debtors, who could pay their debts but choose not to (Dominy & Kempson, 2003), but who also choose not to participate in research. But even with these caveats, the main result remains clear: so far as we can discover, debt problems are very strongly correlated with low income.

However, income is only one side of the household's economic circumstances. The debtors who took part in the psychological research cited above were overwhelmingly poor, but their poverty did not arise only from low income: they also had high outgoings on meeting the basic needs of household members. The commonest cause of such high essential outgoings is the presence of children in the household. Debt risk is substantially increased by becoming a parent (Oksanen, et al., 2016), especially having a disabled child (Houle & Berger, 2017). Low income and high necessary expenditure amount to poverty; and although poverty is always present in societies, when it is more prevalent, debt problems are greater. The trend towards greater inequality in recent decades has been accompanied by rising levels of debt and debt problems (e.g., De Vita & Luo, in press), and countries with higher levels of inequality have more people with debt problems (consider Table 1 of Angel, 2016, for comparisons of European countries). In psychological terms, the persistent association of debt with poverty supports the intuitive view that debt (as distinct from credit use) is an unwanted state, and if it is actively chosen, that it is only a last resort, even given the heavy marketing of credit. Society's debt problems cannot be alleviated by making individuals less willing to take on debt: even the most severely indebted consumers show negative attitudes towards debt (Lea, et al., 1995, Fig. 9).

Alongside chronic poverty, sudden reductions in income or increases in vital expenditure are also triggers of debt. The most obvious impact is from ill health, or accidents requiring medical treatment. That is true regardless of the national system for paying for medical care, but the effects are most extreme in countries that lack comprehensive health provision. Recent reviews of the impact of medical costs on financial well-being demonstrate the prevalence of medical debt in both the USA (Yabroff et al., 2019) and China (J. J. Li et al., 2020). Using cross-sectional data across US cities, Houle et al. (2015) demonstrated that influenza outbreaks were correlated with loan default. But even in countries where direct medical costs do not have to be met by the patient, severe or chronic ill health or disability is a common cause of poverty and consequential debt, because of the reduced income and increased outgoings that often result from illness. Other life events that can push people into debt include the breakdown of a marriage or other relationship, the loss of a job, or the need to take on caring responsibilities (McCloud & Dwyer, 2011; Stone & Maury, 2006; Sullivan et al., 1989). These factors clearly cluster with income and family size as essentially economic causes of debt, where psychological factors are not the primary cause though they might mediate or moderate effects.

In the light of these data, Recommendation 1 of this review is that steps must be taken to reduce poverty, particularly family poverty, and to improve economic security. That means raising the real income levels of the poorest members of society (through income or social welfare policies) and reducing their necessary expenditures, for example, by extending provision of free or subsidized child care and other kinds of family support. It also means enhancing the welfare system so that sudden economic reverses do not force people into debt. The extent and level of poverty in society are not fixed: they vary between countries and periods of time, as a function of political choice. Superficially, this first recommendation is political and economic, but it is based on empirical psychological research, albeit in a negative way. The fact is that three decades of research into the psychology of debt have failed to unearth any factors that can protect individuals from debt if social and economic circumstances are sufficiently adverse. In intermediate conditions, psychological factors can make a difference, as we shall see below, but a substantial reduction in debt problems can only come from social and economic change. I do not underestimate the difficulties of implementing this recommendation, which would involve a reversal of political and economic trends that have been established for the past four decades even in the most egalitarian countries. But without such measures, any other policy recommendations can only be palliative.

Poverty causes debt because people simply do not have enough money to pay their bills. But it also has indirect effects. People who have serious debt to one creditor (e.g., a utility company) usually owe money to many similar creditors (Aznar, 2009; Lea et al., 1993). In a debt crisis, people often borrow from very expensive sources, such as unauthorized overdrafts, rent-to-own retailers, payday lenders, or door-to-door moneylenders who operate on the borders of legality and sometimes with aggressive and misleading marketing (Chen, 2020; Dearden et al., 2010; Lee et al., 2019). Use of such credit sources can cause a small debt to spiral into a much larger one (C. M. Walker, 1996b). Several governments have taken steps to control such lenders in recent years, and some of the more visible firms involved have collapsed in consequence (Collinson & Jones, 2018), but it would be naïve to suppose that expensive credit has gone away. Current regulation is far from perfect (for a critique, see Szajngarten, 2015), and the capacity of providers to relabel and rebrand themselves has been noted (Brookes & Harvey, 2017). Accordingly, Recommendation 2 is that controls on such high cost credit providers should be further strengthened and the market kept under constant review. Although less obviously political than Recommendation 1, this is also not an easy recommendation to implement. Quite apart from the technical difficulties (see Fleming, 2016; Szajngarten, 2015), competing interests are at play. Although specialist payday lenders have few friends in the media and are easily demonized as “loan sharks,” high-cost lenders include major banks, which have well-honed capacities for lobbying against regulation.

Obviously, existing debt causing further debt is yet one more manifestation of the general link between poverty and debt, but there is an additional, more psychological aspect. In a number of contexts, being forced to go into debt, or having been forced to in the past, increases tolerant attitudes towards debt, and may therefore make going into further debt more likely (George et al., 2018; Lea et al., 2001). I will return to this issue when I consider the psychological precursors of debt; it forms part of the background to Recommendation 3, formulated below.

Some social factors increase the risk of debt even when we have controlled for the poverty with which they are often correlated. Many of them can be summarized as representing weaker integration into the mainstream of society, or, as Agarwal et al. (2011) put it, lower social capital. Factors of this kind identified by Agarwal et al. include being unmarried, not having a house mortgage, having moved further from one’s state of origin, and having weaker social networks and levels of co-operation and trust. Similar factors include lower educational level (Oksanen et al., 2015) and, in a majority Muslim country (Malaysia), lower levels of religiosity (Sipon et al., 2014). These factors cluster with poverty in representing social disadvantage in a broad sense. The same is probably true of the association between adult debt and past involvement in juvenile crime, particularly when it had been persistent, which Hoeve et al. (2014) demonstrated in a meta-analysis. Psychologically, these studies reinforce the view that taking on debt represents an unwanted state or a last-resort strategy, though as Hoeve et al. have shown, they may also reflect weaker norms of debt avoidance in those who are nearer the margins of society. Not all the social factors that are correlated with debt are obviously associated with disadvantage, however; in the USA, Basnet and Donou-Adonsou (2016) found that ready availability of the Internet was associated with a higher risk of carrying credit-card debt, at least among younger people with less education. That result illustrates a more general point about social integration: in a society where credit is heavily marketed and integration can apparently only be achieved by the possession of goods that can only be obtained on credit, seeking integration could easily become a route into debt. The kinds of social capital that are protective against debt seem to be those that ground individuals in society in a less commercial way. No immediate recommendation follows from these results, though Recommendation 5, discussed below, is directed at protecting consumers who are more vulnerable to debt problems in various ways, so it should be helpful where the vulnerability results from lower social capital.

The Psychology of Getting into Debt

The economic and social factors that have been reviewed so far go a long way to explaining how people get into debt. Within that general picture, however, there are individual variations in how much debt people will incur, and the level of social and economic adversity that will tip them into debt. I will consider these in three groups: dispositional factors, attitudinal factors, and cognitive factors. From discussion of cognitive factors, it emerges that a key issue is life experience, so a final subsection deals with the particular debt vulnerability of young people.

Dispositional Factors

Among major personality factors, the one most often associated with debt is conscientiousness—or, rather, a lack of it. For example, Letkiewicz and Heckman (2018, 2019) found that more conscientious people were less likely to default on student loans; they were even less likely to take out a mortgage. Similarly, in an investigation of the relation between personality and financial well-being, Donnelly et al. (2012) found that higher levels of conscientiousness were associated with more active financial management, and this was in turn correlated with lower risk of debt. S. Brown and Taylor (2014) found effects of several of the Big Five personality variables on different measures of household debt, but conscientiousness again had a substantial effect. Donnelly et al. (2012) also found an effect of lower levels of materialism, which can be seen either as a personality variable or as an attitude.

Much research has focused on impulsiveness, or lack of self-control, as a dispositional factor that might increase individuals' risk of falling into debt. These terms are used very widely in different areas of psychology, and as already noted, Strickland and Johnson (in press) have criticized the idea that the different traits and behaviors that are described as "impulsive" reflect a single psychological construct: they do not involve any single neurobehavioral mechanism, and they cannot be captured in any single psychometric test. It can be argued that even as words, "impulsiveness" and, especially, "lack of self-control" are unsatisfactory, carrying as they do moralistic overtones. Nonetheless, within restricted spheres, psychometrically satisfactory scales of impulsiveness can be derived, the best known being the Brief Self-Control Scale (BSCS) of Tangney et al. (2004). It is unclear whether this scale measures a distinct personality dimension: Tangney et al. report that it has robust correlations with Big Five measures of conscientiousness and emotional stability. However, many investigations into the psychology of debt have used the BSCS and related scales, because of the theoretical links impulsivity has with intertemporal choice. The general finding is that higher impulsiveness is indeed correlated with debt (e.g., Achtziger et al., 2015; Gathergood & Weber, 2014; Ottaviani & Vandone, 2011; Peltier et al., 2016). A recent meta-analysis by Frigerio et al. (2020) confirms that this trend is general, though it also shows that the result is moderated by the level of debt and the employment status of the respondents.

Policy cannot easily impact on people's conscientiousness, impulsiveness, or other dispositional qualities, and arguably it should not try. Behaviorally, what we are talking about here is a preference for immediate reward, sometimes referred to as a short time horizon. The literature cited above shows convincingly that such preferences are associated with debt, but the implications of that correlation for causality are ambiguous. Poverty in general, and debt in particular, makes it more difficult to take a long financial view, because they frequently impose immediate, nonnegotiable financial demands. We cannot assume that policies aimed at increasing people's self-control—even supposing we knew what such policies would look like—would reduce individuals' debt problems.

Nonetheless, Frigerio et al. (2020) suggest that the persistent association between high impulsiveness and debt problems does have policy implications: they argue for laying a greater duty of care on lenders towards impulsive borrowers. That is reasonable, and this consideration is addressed in Recommendation 5, below, alongside other sources of individual vulnerability to debt problems.

Attitudinal Factors

Dispositional factors are difficult to modify through policy interventions. Attitudes, by definition, are more mutable, and so might be better targets for policy. Both general attitudes, and specifically financial ones, have been linked to risk of debt, including lack of self-efficacy (Farrell et al., 2016), positive risk preference (S. Brown et al., 2013), overoptimism (Seaward & Kemp, 2000), materialism (e.g., de Matos et al., 2019; Gardarsdottir & Dittmar, 2012; for review, see Kasser, 2016), greed (Seuntjens et al., 2016), reluctance to spend from savings (Sussman & O'Brien, 2016), and specific attitudes to debt and credit (Awanis & Cui, 2016; Chien & Devaney, 2001; Hayhoe et al., 2000; Lea et al., 1993, 1995). These disparate attitudinal factors offer differing scope for policy intervention, but some at least seem to hold some promise. For example, positive risk preference and reluctance to spend from savings might well be products of individuals' economic socialization, and so susceptible to interventions through the education system. This will be a recurring theme in this review, and I will gather up this kind of recommendation below. In terms of more direct interventions, some of these attitudes are readily measured, and it would be feasible to require lenders to measure them and take them into account before offering credit, and this forms part of Recommendation 5, below.

The most promising target for policy intervention, however, is specific attitudes towards debt and credit. As has already been noted, most people are hostile to debt; but the experience of being forced into debt reduces this intolerance

(George et al., 2018; Lea et al., 2001). Accordingly, public policy needs to avoid creating situations that people will understand as involving debt despite being difficult to avoid. The slipperiness of lay people's understanding of debt makes this easier than it might seem: for example, it is impossible for most people to buy a house without borrowing money, but most people do not see a mortgage that is kept in good order as a debt. Seen in this light, it is a policy error to label the financial support for participation in higher education as a loan. If essentially the same financial arrangements had been labeled differently, for example, as a grant to students combined with a graduate tax, students would not have seen themselves as incurring debt, and so their debt intolerance would not have been undermined. Such a relabeling would be reasonable, because the rules for repayment of student loans can be very odd compared with other loans: in the UK, for example, repayments are income-contingent, debts are wiped out if not repaid within a certain time, and the interest rates charged are unrealistically high. This discussion leads to Recommendation 3: that when it is necessary to levy contributions from subgroups within society towards services provided by public authority, the language of debt should be avoided.

Cognitive Factors

The kind of economic socialization children and young people receive varies, and this can make a difference to whether they fall into debt as adults. Several authors have reported that adult debt is more likely when there has been a lack of financial mentoring from parents (Grinstein-Weiss et al., 2012; Norvilitis & MacLean, 2010; Webley & Nyhus, 2006), or when people have not held savings accounts from an early age (Friedline & Freeman, 2016). Two possible psychological mechanisms could underlie these effects: debt avoidance in adulthood might be due to greater knowledge and experience acquired in childhood or adolescence, or it might be due to acquisition of a stronger antidebt attitudes. Research has not yet assessed the relative contribution of these processes, but the fact that intolerance of debt can be diminished by experience of unavoidable debt, discussed above, suggests that it is the cognitive effects of socialization that are the more important. Whatever the mechanism, however, economic socialization is open to intervention, both through the education system and through guidance given to parents and carers, and it is therefore of interest to policymakers. A widely discussed proximate psychological mechanism through which factors such as socialization might act is the level of financial literacy or financial knowledge (the two terms are used more or less interchangeably in the literature). However, so far we lack firm evidence that policy interventions aimed at general financial literacy would be worthwhile. There is some evidence, discussed below, that more specific interventions, such as early training in particular economic and financial calculations, hold more promise.

There is no doubt that levels of financial literacy are low. Klapper and Lusardi (2019) have reviewed worldwide evidence for a lack of the most basic financial skills: on average, only one in three adults could answer correctly three out of five questions such as "Suppose you need to borrow $100. Which is the lower amount to pay back: $105 or $100 plus 3%?" Klapper and Lusardi also show that some of the correlates of lower levels of financial literacy are the same as the correlates of debt. On the basis of data like these, it is strongly and widely argued that enhancing financial literacy could lead to wiser economic choices by consumers, including reduced risk of debt (e.g., Goyal & Kumar, 2020; Klapper & Lusardi, 2019; Williams & Oumlil, 2015). However, although there is some direct evidence that poor financial literacy is associated with higher levels of debt (e.g., Lusardi & Tufano, 2015, in a population sample; Norvilitis et al., 2006, among college students), such evidence is limited compared with the attention the question has been given. Some studies find no effect, a relatively weak effect, or an effect that is mediated by other factors (e.g., Gathergood, 2012; Ottaviani & Vandone, 2018; Potrich & Viera, 2018). There is a need for prospective study to investigate experimentally whether raising general financial literacy through education does reduce the risk of subsequent debt problems. This kind of research is as yet in its infancy: Popovich et al. (2020) report an exploratory example with college students, which was successful in raising financial literacy (and also in changing attitudes). However, they were not able to test whether it had any impact on subsequent debting behavior. Willis (2011) has argued persuasively that the cost–benefit ratio for programs aimed at raising financial literacy in the general population is unlikely to be advantageous, and meta-analysis shows that, empirically, the track record of such programs in improving outcomes for those who follow them is poor (Fernandez et al., 2014).

There is clearer evidence that the possession of specific economic skills may help people avoid debt (Goedde-Menke et al., 2017). Sheer experience of making financial choices seems to help (Buckland, 2010), and Y. Li et al. (2015) have shown that it can compensate for the effects of general cognitive decline in older consumers. Better money management skills have repeatedly been found to be associated with lower risk of debt (e.g., Donnelly et al., 2012; French & McKillop, 2016; Lea et al., 1995). More specifically still, understanding of how to assess credit offers makes a difference. The way a credit arrangement is presented can nudge people towards particular decisions (Timmons et al., 2019). Even in the absence of such manipulation, when people consider a credit arrangement, their spontaneous tendency is to judge its affordability in terms of the repayment amounts (Ranyard & Craig, 1995), or, in the case of credit cards, by the minimum required repayment (Stewart, 2009). However, given the opportunity to seek information about the total cost of credit, people will judge desirability more in terms of total cost (McHugh et al., 2011; Ranyard et al., 2006). This will generally lead to better decisions: Focusing entirely on recurrent cost can lead to consumers paying excessive sums for goods. However, recurrent cost must also be part of the decision, because if circumstances change, high recurrent cost can turn an affordable credit arrangement into an unmanageable debt (Dearden et al., 2010). The policy implications here are clear: marketing of credit needs to present standard and complete information without overemphasizing any one aspect of its cost. Many jurisdictions already regulate credit marketing in this kind of way, but the regulations are rarely based on empirical research into how consumers actually take decisions.

So, what policy recommendations can be made in the light of these cognitive factors relating to debt risk? It seems clear that many people lack fluency in making the sorts of calculations required to see when a credit arrangement is a bad deal. These are not skills that should need to be learned in adulthood. The problem does not seem to be a lack of ability to make the calculations themselves, because better numeracy as such does not enhance financial literacy or protect people from falling into debt (Darriet et al., 2020; Dick & Jaroszek, 2013; French & McKillop, 2016). We have already seen that trying to enhance general financial literacy is unlikely to be effective. The positive effects of experience suggest that what is needed is practice at applying basic numeracy skills to the kinds of financial questions that people are faced with in a credit-using society. Accordingly, Recommendation 4 of this review is that discussion and calculations explicitly relating to debt and credit should be included in the ordinary school curriculum. The current, implicit, assumption is that if people know how to perform basic calculations they will automatically be able to apply them to financial contexts. However, transfer of skills between contexts often has to be taught; it would be more efficient to teach the calculations that are essential to people's financial welfare directly.

The Role of Experience

Given the value of experience in good financial choices, it is no surprise that an important cause of debt is simply being young (Hoeve et al., 2014). Modern young people are borrowing more heavily than previous cohorts, for example, via credit cards (Jiang & Dunn, 2013). Youth, indeed, may underlie many of the factors that have been noted above as correlated with debt, including some of the social and economic ones: as well as being less experienced financially, younger people tend to have lower income and social capital, are more likely to have young children, and are more likely to use Internet retail and new forms of money. In addition, at present young people are particularly likely to be in debt because of structural factors: Over the past 30 years or so, young adults have experienced unavoidable debt burdens, unknown to the preceding generations, because of the shift of the financing of postschool education towards loans (Houle, 2014). The increasing use of debt by modern young people may be partly due to the fact that so many have to take on debt to finance their studies; this makes them look less unfavorably on debt in general, through the pressure to attitude-behavior consistency (Lea et al., 2001), a point that motivated Recommendation 3 made earlier.

However, youth is a factor in debt quite apart from its correlations with economic and social circumstances, and issues of student finance. I argue that this is because youth is inevitably associated with lack of experience. When young people (especially young men) first move out of the parental home, whether as students or not, they take on substantial extra responsibility for their lives. They are likely to face an effective fall in income (though their parents' financial situation may improve), and they are likely to see credit use as essential to establishing their independence (McNeill, 2014). They often make mistakes, including using credit unwisely (Hayhoe et al., 2000; Singh et al., 2018), and the younger they are when they leave home, and the more disadvantaged their home circumstances, the more likely it is that their attempt at independence will fail for financial reasons (Houle & Warner, 2017; Oksanen et al., 2017; West & Friedline, 2016). If, like many students, they come from prosperous families, or move on to good jobs, the consequences can be dealt with. If they come from disadvantaged families and cannot find work, an initial small debt may never be wiped out and may grow to become a crisis debt even though the person has been living within his or her income ever since that initial error (Dearden et al., 2010; C. M. Walker, 1996b; Wrapson et al., 2007).

Some of these difficulties might perhaps be mitigated by better financial education, as proposed above. In addition, however, I argue that taking credit should be treated like driving a car—not an automatic entitlement of any adult citizen, but rather as something you have to demonstrate competence for before you are allowed to do it without restrictions. Accordingly, Recommendation 5 of this review is that access to credit should be controlled more carefully, so that young adults and others at elevated risk of debt problems are not able to take on onerous credit obligations until they have shown that they can manage smaller credit arrangements competently. There should be a duty of care towards young borrowers placed on any business that lends money, perhaps by imposing age limits on credit availability (as argued for in the case of China by Lin et al., 2019), or even by making it legally impossible to recover loans extended to people who lack the proven experience to manage them. The same duty of care should be extended to other groups who for different reasons might be at risk of getting into debt problems following normal access to credit. That would include anyone without previous credit experience, but also groups identified above as at higher risk, such as those scoring highly on tests of impulsiveness, or those with a highly debt-tolerant attitude. It would not be unreasonable to require lenders to profile potential borrowers psychologically to identify those at elevated risk. In the United Kingdom, investment advisors are already required to assess clients' risk preference before suggesting investment vehicles, so no new regulatory principle would be involved.

Psychological Impacts of Debt

Being in debt is associated with a wide range of psychological ill effects, ranging from high levels of anxiety (S. Brown et al., 2005) and depression (Jenkins et al., 2008) to reduced marital satisfaction (Dew, 2008) and job performance (Carrell & Zinman, 2014), and suicide, attempted suicide, and suicidal ideation (Meltzer et al., 2011). Most of the studies of such associations are correlational, so causality is not conclusively demonstrated. However, there is a clear risk of a spiral of causality, where consequences of debt increase the chance of getting further into debt. That has important implications for how we should approach helping people who get into debt.

In addition to these general effects, being in debt appears to cause changes in more specifically economic attitudes and behavior. People with long-term debts become highly skilled at managing the little money they have available from day to day (Buckland, 2010; C. M. Walker, 1996a, 1996b), but they often do so in ways that are dysfunctional in the longer term (and certainly not in accord with their creditors' preferences). For example, they operate on very short time horizons in which the debt that falls due in a week's time has little leverage compared with more immediate financial demands such as a child's need for lunch money to-day. Such short time horizons are characteristic of poverty (Shah et al., 2012), but they are associated with debt over and above their mutual association with poverty (Lea et al., 1995). The consequence is that debts are rolled on with increasing interest. Furthermore, debtors in this kind of situation frequently deliberately ignore or destroy communications from creditors. And, as already noted above, debt causes more debt: people who have chronic money problems are more likely to make use of extremely expensive credit sources such as payday and doorstep lenders, and often have positive attitudes towards them (Dearden et al., 2010; C. M. Walker, 1996b). Such lenders are frequently located in poorer areas (e.g., Gallmeyer & Roberts, 2009; Prager, 2014); and if their activities are controlled by regulation, poorer debtors may shift to even more expensive sources of credit such as bank overdrafts, issuing cheques that will inevitably bounce, and nonpayment of bills (Morgan et al., 2012; Zinman, 2010)—an effect that sets limits on what can be achieved by regulating lenders. These results underlie the importance of Recommendation 2, to regulate the provision of high-cost credit, and the need for such regulation to be flexible and agile. But while such regulation is important to limit harm, the existence of such high-cost lenders is a symptom of debt problems more than a cause, and policy also needs to address the root causes of the problem.

Perhaps associated with the short time horizons enforced by chronic debt is a tendency for debtors to show more tolerant attitudes towards debt (Lea et al., 1993, 1995). This is not the place for an extended discussion of the causal relations between attitudes and behavior, but in the present case, it seems highly likely that it is being in debt that causes the change of attitudes (presumably because of the psychological pressure towards attitude-behavior consistency). This can be seen most clearly among students in higher education: in the early days of student loan finance in the UK, cohort comparisons showed that attitude change towards debt lagged behind behavioral change (Davies & Lea, 1995). Lea et al. (2001) and Haultain et al. (2010) found that intending students showed the characteristic intolerant attitude to debt before entering university, but a more accepting attitude a few months later, when they had been obliged to enter into formal debt arrangements to fund their studies, and had often taken on other kinds of debt as well, for example, through credit cards. Lea et al. found that this increased tolerance to debt only dissipated slowly following graduation. More recent studies of student attitudes to debt identify a subgroup who are resigned to debt, comprising nearly a third of one UK student sample (Harrison et al., 2015). These studies provide a fuller background for Recommendation 3, but they also illustrate a general point made above: that among the consequences of debt are effects that overlap with the precursors of debt, creating a potential spiral of causality.

As noted above, the psychological ill effects of debt lend urgency to all policies to reduce debt risk, but in addition, they lead to some specific recommendations. Because the ill effects of debt, even in its early stages, include behaviors that avoid contact with the problem and thus allow it to become worse, I recommend policies to improve individuals' credit awareness. In most jurisdictions, existing regulations do require lenders to be explicit about borrowers' obligations to them, but typically individual lenders will not know the totality of any individual's debts. However, credit rating agencies have a much fuller picture. At present, they act largely in the interests of lenders. Recommendation 6 of this review is that they should be given a complementary duty towards consumers, whose behavior is their stock in trade. For example, they could be required to notify consumers whenever their credit rating falls. This could draw people's attention to the total of their debt situation before they have become too deeply in debt and would thus be predicted to reduce indebtedness, though as yet we have no studies to demonstrate that it does.

The Psychology of Getting Out of Debt

Longitudinal studies such as those of Webley and Nyhus (2001) show that a substantial proportion of those reporting debts in one year report being debt-free within a year, and this is true even among quite poor debtors (Kempson et al., 2004). This observation emphasizes the point made at the beginning of this review that not all debt is socially problematic: lending and borrowing are part of our economic system; they can give people flexibility in managing their affairs, and many people engage in them without ill-effect.

But not everyone simply rotates out of debt. People in debt want to escape from it, and the greater the financial threat, the more they are willing to change their behavior to try to get out of debt (Fiksenbaum et al., 2017). How can policy improvements help them, when debt has become chronic, or threatens to? To answer this, we need to look at the ways in which people successfully get out of debt. Three effective routes can be summarized as financial help, a shock, and advice.

Some debtors are given informal financial help to become debt-free: this is frequently the case with students; tolerant families, or first employers may see to it that debt is brought under control. Such help needs to be substantial or sustained, however, since a one-off minor income supplement does not seem to break the cycle of chronic debt (Skiba, 2014). For some, the much dreaded crisis of a legal summons may in fact bring help, because the court imposes a repayment timetable that is more realistic than creditors are demanding. Other debtors are helped with advice and support, and Disney et al. (2015) have shown that credit counselling effectively compensates for a lack of financial literacy among consumers facing debt problems. The agencies involved, such as Citizens Advice or StepChange in the UK, may be able to go beyond mere advice and help negotiate a realistic settlement with creditors. Where that is not possible agencies may be able to guide people into bankruptcy, or a legally backed arrangement with creditors short of bankruptcy (e.g., the Individual Voluntary Arrangements available in England and Wales). Hartarska and Gonzalez-Vega (2006) found that counselling of this sort improved outcomes for serious debtors.

Without the help of such an expert agency, the almost universal advice of “get in touch with your creditors” is regarded by most debtors as useless (C. M. Walker, 1996b; Wrapson et al., 2007). Some current regulations seek to institutionalize such contact: for example, creditors seeking to recover debts in England and Wales through the courts must issue a pre-action protocol to the debtor to encourage them to make contact and address the debt outside the legal system. However such schemes have not yet been shown to benefit either debtors or creditors (Mewse et al., 2010). J. T. Anderson et al. (2020) argue that the conceptual basis on which creditors enter into negotiations with debtors is often unrealistic, and the repayment schedules they propose are often unsustainable because they do not take into account the other debts that people hold (Wrapson et al., 2007). For debtors, negotiating with creditors is emotionally costly (Tufail and Polletta, 2015) and frequently unfruitful (Krumer-Nevo et al., 2016). This evidence leads to my Recommendation 7: debtors should only be encouraged to contact creditors when they have the support of a competent advisor. The recent COVID pandemic has seen a widespread movement of businesses to approach customers who may be in financial difficulty, offering help rather than directly seeking debt recovery; it will be interesting to see whether this does help people avoid debt.

Are there also psychological strategies that could be promoted, that would help people become debt-free by their own efforts? To answer this question, we might look at the behavior of debtors with higher IQ or financial literacy, to see if they use strategies that could be more widely encouraged. Debtors with higher IQ are more likely to focus their efforts on debts with serious consequences, such as mortgage debt (Anzac & Amar, 2017), and that is widely accepted as sound strategy by advice agencies. On the other hand, those of higher financial literacy are less likely to use advice services (Disney et al., 2015), which the evidence reviewed above suggests would be a poor strategy. While one might hope it occurs because the financially literature have less need of advice, it might also be due to overconfidence, a trait that has been shown to lead to unwillingness to take financial advice (A. Anderson et al., 2017). Overconfidence has been shown to be hazardous in several kinds of financial decisions, including decisions relating to debt such as making mortgage payments late (Kim et al., 2020) and taking on unwise amounts of debt (Cwynar et al., 2020). Mimicking the financially literate might not, therefore, always be sound strategy.

The debt-elimination strategies that debtors tend to prefer include repaying first the creditor with whom they perceive themselves to have a closer relationship (Polletta & Tufail, 2014), and reducing the overall number of their debts by paying off small debts completely rather than paying something off larger debts bearing higher interest (Amar et al., 2011; Besharat et al., 2014; Kettle et al., 2016), especially when spouses take decisions jointly (Olson & Rick, 2014). The preference for reducing the number of debts has attracted much comment, because logically it is not the quickest way to become debt free, which would always be to start with the debt bearing the highest interest (Besharat et al., 2014). However, paying off small debts may in fact be an effective strategy, because paying something off completely has both motivating and rewarding effects (A. L. Brown & Lahey, 2015; Kettle et al., 2016) and can even improve cognitive functioning (Ong et al., 2019). Even hypothecating a repayment to correspond to a specific credit card purchase can help motivate recovery from chronic credit card debt (Donnelly et al., 2015).

Other debt-reduction strategies include giving credit card customers information about the effects of different repayment strategies, as is required by law in the USA under the Credit Card Accountability Responsibility and Disclosure Act (2009). Empirically, it has been found that this can encourage sound payoff decisions under some circumstances, but does not always do so (Hershfield & Roese, 2015; Jones et al., 2015; Keys & Wang, 2016; Salisbury, 2014). Commitment responses, such giving an undertaking to make regular payments of specified amounts, have been claimed to be effective in increasing people's propensity to save, and they tend to be encouraged by creditors trying to secure repayment of debts. But they are of little use in supporting debt repayment if the commitment is to a payment that is not realistic in the debtor's financial circumstances (Bhanot, 2017), although in one study those with the tightest budget constraints were found to adhere most successfully to a debt repayment program, apparently because of the detailed attention to expenditure that their circumstances forced on them (Chelsi et al., 2014). Deplaned et al. (2016) showed that the ability to negotiate a realistic repayment schedule with creditors is important in successful emergence from debt. Dellande et al. point out that such negotiation is more difficult for those who do not belong to the majority culture in a society, and this may contribute to poorer repayment outcomes. Encouraging people to reflect on debt in structured ways has been found to reduce people's dysfunctional avoidance of thinking about their debt problems (Harkin, 2017). Taken together, this evidence further supports Recommendations 4 and 6, already discussed, which aim to help people become more fluent in making debt and credit calculations, and to enhance credit awareness by requiring creditors to make people aware of their obligations at an early stage.

However, the very best advice, and the very best strategies, cannot help people get and stay out of debt if the economic factors simply do not add up (Atfield et al., 2016). Walker and colleagues (Değirmencioğlu & Walker, 2015; C. Walker, Burton, et al., 2015) have repeatedly emphasized that the prevalence of debt is a consequence of the economic and financial structure of our society and indeed a necessity for sustaining its present form (Barba & Pivetti, 2009). But if the existence of debt is beneficial for the majority of society but perilous for some, that creates a moral obligation to limit the risk that individuals become victims of debt, and to help people recover from debt if they fall into it. Since so much of debt is explained by social and economic considerations, this obligation can only be addressed by political and macroeconomic change, which is unlikely to come easily since present structures are often profitable for creditors and those who serve them (C. Walker, Hanna et al., 2015). In a benign social and economic environment, psychological knowledge can be used to minimize the personal damage due to debt. But under present circumstances, I stress again that those who are unable to escape from debt must be regarded as victims of their socioeconomic situation, rather than incapable individuals.

Conclusions and Recommendations

Like most social problems, debt is messy. There are multiple reasons why people get into debt, multiple experiences of being in debt, and multiple ways of escaping from debt. No single academic discipline or public institution holds the key that would allow everyone to enjoy the benefits of using credit without running the risk of falling into damaging debt; arguably, no such key does or could exist. Nonetheless, some consistent themes have emerged from 30 years of research on the psychology of debt. Not all of them currently lead to clear policy recommendations, and I will give a short list of fields where in my view further work, or better evidence, is needed before policy can be based on them. Some themes, however, are more promising, so, finally, these are brought together as a series of recommendations, and the bodies that would need to act on them are identified.

Areas Where More Work Is Needed

Fields of research that do not, in themselves, currently yield clear policy proposals include the large literature on intertemporal choice. This literature is important in providing a conceptual basis for other research, but taken on its own it would simply lead to urging people to be less impulsive, or trying to find ways in which they can improve their self-control, and no effective ways of doing that have been identified. What we can do is seek to offer extra protection to people who are dispositionally or temporarily impulsive, and that is the subject of one of the recommendations below. Second, the influential literature showing that many people lack basic financial literacy is important but at present appears not to be directly applicable: broad programs to improve general financial literacy have not been shown to reduce debt problems. On the other hand, financial experience and specific skills do seem to be protective, so a policy aimed at improving such skills is included below. Finally, the logical recommendation to people seeking to recover from debt, that they should pay off the debt with the highest interest load first, is not necessarily the best strategy in practice, because paying off small (and perhaps less expensive debts) completely can give psychological benefits that outweigh the financial advantage of the more logical strategy.

Recommendations

In conclusion, therefore, I gather up the positive policy recommendations that have been made in the body of this review, and identify who needs to act on them.

1. Reduce poverty. Much debt, and many of the most distressing problems due to debt, are direct results of long-term poverty or economic shocks. It may be true that the poor will always be with us: but the extent and level of poverty in society are not fixed. They depend on political choices. The single step that would do most to reduce levels of problematic debt in society is to adopt economic policies that raise the real income levels of the poorest members of society and provide an enhanced safety net for those who suffer sudden economic problems. That would require positive action to reduce economic inequality and improve social security. Such policy change requires direct action from government, but before that could occur, it would require political action from the population at large, reversing the decades-long drift towards greater inequality in almost all countries. It will not come easily, because many of those who hold political power and influence benefit from current levels of inequality and insecurity.

2. Maintain and intensify regulation of high-cost lenders. Those who are in financially fragile situations frequently make use of credit sources—from doorstep lenders to bank overdrafts—that charge very high interest. Such borrowing can be understood psychologically, as a consequence of the shortening of time horizons that debt imposes. It is also profitable to lenders. But it exacerbates debt problems and can transform a momentary shortage of money into a chronic debt problem. It follows that controls on such high cost credit providers should be further strengthened and the market kept under constant review. This must be understood, however, as a palliative rather than a fundamental measure: it addresses a consequence of debt rather than its root cause. It requires action by governments in the first instance, but then by regulatory bodies. Again, pushback is to be expected from those for whom a less regulated credit market is profitable.

3. Avoid unnecessarily labeling financial support as a loan. It is a well-established psychological principle that people's attitudes often adjust to be consistent with their behavior. The attitude change may then facilitate further or more persistent behavior of the same kind. In respect of debt, this means that a situation where people cannot avoid getting into debt may make them less inclined to avoid debt in future situations where they may have more choice. But the slipperiness of subjective debt concepts means that a financial situation involving future repayment need not always be labeled as debt. Specifically, while it may be necessary to levy future financial contributions from students to help pay for their studies, labeling the transaction as a "student loan" is unhelpful. It would be better to refer to it as a "graduate tax."

4. Educate children in financial calculations. Although a lack of general financial literacy may not contribute as much to debt problems as is sometimes argued, the empirical literature strongly suggests that experience and skill in making financial calculations can protect people from making bad decisions, including taking on inappropriate credit. What seems to be needed is fluency in seeing, without effortful calculation, what is or is not a good deal when borrowing money. Such fluency comes most easily from extensive practice early in life, so I argue that calculations explicitly relating to debt and credit should be included in the ordinary school curriculum. Although this is not as politically contentious as some of these recommendations, it might not be popular among those who had to implement it. Initial action here might again need to come from governments, but implementation needs to be within the school system, and it requires educators to be willing to engage with the mundane subject of money calculations, and education researchers to investigate the most effective ways of embedding them in the curriculum.

5. Give extra protection to those vulnerable to debt when offering credit. Some people are particularly susceptible to debt problems. This includes those who are dispositionally impulsive, but it particularly applies to young people: and debts contracted early in life can have long-term ill effects. Accordingly, steps need to be taken to protect people at this vulnerable life stage. Although this would involve a restriction of the financial freedom of people who are legally adults, the evidence suggests that access to credit should be controlled more carefully, so that young people are not able to take on onerous credit obligations until they have shown that they can manage smaller credit arrangements competently. This would, in fact, not only apply to young people, but to anyone without previous experience of successful borrowing, and to people who are by disposition highly impulsive, a tendency that can be detected by psychometric tests. Lenders should have a duty of care to borrowers that requires them to screen them for age, experience, and personality traits relevant to the risk of debt problems. They could be expected to resist the imposition of such regulation, but the example of requiring financial advisors to assess risk preference shows that this kind of measure can be brought in without too much difficulty or expense to those who have to implement it.

6. Enhance people's awareness of their credit position. The wide and easy availability of credit, and the way it is often marketed, makes it easy for people to get into more debt than they intend, and more than they can manage. The way people behave in the face of debt accentuates this risk. Policies to improve credit awareness are therefore needed. Because of the need to take an overview of an individual consumer's debts, the most effective policies would place duties on credit rating agencies or cognate bodies, rather than on individual lenders. Although these agencies could be expected to resist having to act in this way, their business ultimately depends on the behavior of individuals, and it is not unreasonable to expect them to take some responsibility for the welfare of those individuals. A requirement for them to do so would also be consistent with the current trend of data protection and transparency legislation.

7. Advise debtors to approach creditors only with appropriate support. There are many strategies that have been shown to help people recover from debt problems. The one that is most consistently recommended, however, appears to be largely ineffective unless the individual has appropriate support. Debtors should only be encouraged to contact creditors when they have the support of a competent advisor. Action here is required by creditors: anyone seeking debt recovery could be required to give information at the earliest stage about contacting debt advice services. This is already done in some cases, and a requirement to do it is unlikely to meet serious resistance from trade creditors such as utility suppliers; they have a mutual interest with their customers in avoiding debt. Lenders who profit from interest on loans are more likely to offer opposition, but in general the right to offer credit depends on a license from a government authority, so a determined government is able to impose conditions.

If all these recommendations were adopted overnight, the problems of debt in society would not go away. Credit enhances consumer choice and is a necessary function in a modern economy, and so long is credit is available, some people will get into difficulties with debt. But, as is the case with poverty itself, neither the extent nor the level of debt is fixed. Appropriate policies, such as those proposed here, could reduce both.

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References

Achtziger, A., Hubert, M., Kenning, P., Raab, G. & Reisch, L. (2015). Debt out of control: the links between self-control, compulsive buying, and real debts. *Journal of Economic Psychology*, *49*, 141–149. https://doi.org/10.1016/j.joep.2015.04.003

Agarwal, S., Chomsisengphet, S. & Liu, C. L. (2011). Consumer bankruptcy and default: the role of individual social capital. *Journal of Economic Psychology*, *32*, 632–650. https://doi.org/10.1016/j.joep.2010.11.007

Ainslie, G. (1975). Specious reward: a behavioral theory of impulsiveness and impulse control. *Psychological Bulletin*, *82*, 463–496. https://doi.org/10.1037/h0076860

Ainslie, G. (1992). *Picoeconomics*. Cambridge, UK: Cambridge University Press.

Amar, M., Ariely, D., Ayal, S., Cryder, C. E. & Rick, S. I. (2011). Winning the battle but losing the war: the psychology of debt management. *Journal of Marketing Research*, *48*, S38-S50.

Amit, N., Ismail, R., Zumrah, A. R., Nizah, M. A. M., Muda, T. E. A. T., Meng, E. C. T., et al. (2020). Relationship between debt and depression, anxiety, stress, or suicide ideation in Asia: a systematic review. *Frontiers in Psychology*, *11*, 1136. https://doi.org/10.3389/fpsyg.2020.01336

Andersen, S., Harrison, G. W., Lau, M. I. & Rutström, E. E. (2014). Discounting behavior: a reconsideration. *European Economic Review*, *71*, 15–33. https://doi.org/10.1016/j.euroecorev.2014.06.009

Anderson, A., Baker, F. & Robinson, D. T. (2017). Precautionary savings, retirement planning and misperceptions of financial literacy. *Journal of Financial Economics*, *126*, 383–398. https://doi.org/10.1016/j.jfineco.2017.07.008

Anderson, J. T., Harrison, D. M., Luchtenberg, K. F. & Seiler, M. J. (2020). Legal versus psychological contracts: when does a mortgage default settlement contract become a contract? *Journal of Real Estate Finance and Economics*, https://doi.org/10.1007/s11146-020-09748-7

Angel, S. (2016). The effect of over-indebtedness on health: comparative analyses for Europe. *Kyklos*, *69*, 208–227. https://doi.org/10.1111/kykl.12109

Atfield, G., Lindley, R. & Orton, M. (2016). *Living with debt after advice*. York: Friends Provident Foundation.

Awanis, S. & Cui, C. C. (2016). A structural equation model of credit card debt among the youth market. In Plangger, K (Ed.), *Thriving in a new world economy*. Cham, Switzerland: Springer, pp. 61–64.

Aznar, C. (2009). *A life in debt*. London: Citizens Advice.

Bank of England (2020). Money and credit – January 2020. Available from: https://www.bankofengland.co.uk/statistics/money-and-credit/2020/january-2020 [Accessed 28 August 2020.]

Barba, A. & Pivetti, M. (2009). Rising household debt: its causes and macroeconomic implications - A long-period analysis. *Cambridge Journal of Economics*, *33*, 113–137. https://doi.org/10.1093/cje/ben030

Basnet, H. C. & Donou-Adonsou, F. (2016). Internet, consumer spending, and credit card balance: evidence from US consumers. *Review of Financial Economics*, *30*, 11–22. https://doi.org/10.1016/j.rfe.2016.01.002

Berns, G. S., Laibson, D. & Loewenstein, G. (2007). Intertemporal choice – toward an integrative framework. *Trends in Cognitive Sciences*, *11*, 482–488. https://doi.org/10.1016/j.tics.2007.08.011

Besharat, A., Carrillat, F. A. & Ladik, D. M. (2014). When motivation is against debtors' best interest: the illusion of goal progress in credit card debt repayment. *Journal of Public Policy & Marketing*, *33*, 143–158. https://doi.org/10.1509/jppm.13.007

Besharat, A., Varki, S. & Craig, A. W. (2014). Keeping consumers in the red: hedonic debt prioritization within multiple debt accounts. *Journal of Consumer Psychology*, *25*, 311–316. https://doi.org/10.1016/j.jcps.2014.08.005

Bhanot, S. P. (2017). Cheap promises: evidence from loan repayment pledges in an online experiment. *Journal of Economic Behavior and Organization*, *140*, 246–266. https://doi.org/10.1016/j.jebo.2017.04.007

Białowolski, P. (2019). Economic sentiment as a driver for household financial behavior. *Journal of Behavioral and Experimental Economics*, *80*, 59–66. https://doi.org/10.1016/j.socec.2019.03.006

Brookes, G. & Harvey, K. (2017). Just plain Wronga? A multimodal critical analysis of online payday loan discourse. *Critical Discourse Studies*, *14*, 167–187. https://doi.org/10.1080/17405904.2016.1250651

Brown, A. L. & Lahey, J. N. (2015). Small victories: creating intrinsic motivation in task completion and debt repayment. *Journal of Marketing Research*, *52*, 768–783. https://doi.org/10.1509/jmr.14.0281

Brown, S. & Taylor, K. (2014). Household finances and the 'Big Five' personality traits. *Journal of Economic Psychology*, *45*, 197–212. https://doi.org/10.1016/j.joep.2014.10.006

Brown, S., Garino, G. & Taylor, K. (2013). Household debt and attitudes toward risk. *Review of Income and Wealth*, *59*, 283–304. https://doi.org/10.1111/j.1475-4991.2012.00506.x

Brown, S., Taylor, K. & Price, S. W. (2005). Debt and distress: evaluating the psychological cost of credit. *Journal of Economic Psychology*, *26*, 642–663. https://doi.org/10.1016/j.joep.2005.01.002

Buckland, J. (2010). Are low-income Canadians financially literate? Placing financial literacy in the context of personal and structural constraints. *Adult Education Quarterly*, *60*, 357–376. https://doi.org/10.1177/0741713609358449

Carrell, S. & Zinman, J. (2014). In harm's way? Payday loan access and military personnel performance. *Review of Financial Studies*, *27*, 2805–2840. https://doi.org/10.1093/rfs/hhu034

Celsi, M., Gilly, M., Nelson, R. & Dellande, S. (2014). Less is core: consumer debt repayment and the budget constraint paradox. *Advances in Consumer Research*, *42*, 622–623.

Chabris, C.F., Laibson, D., Morris, C. L., Schuldt, J. P. & Taubinsky, D. (2008). Individual laboratory-measured discount rates predict field behavior. *Journal of Risk and Uncertainty*, *37*, 237–269. https://doi.org/10.1007/s11166-008-9053-x

Chen, V. (2020). Online payday lenders: trusted friends or debt traps? *University of New South Wales Law Journal*, *43*, 674–706.

Chien, Y. W. & Devaney, S. A. (2001). The effects of credit attitude and socioeconomic factors on credit card and installment debt. *Journal of Consumer Affairs*, *35*, 162–179. https://doi.org/10.1111/j.1745-6606.2001.tb00107.x

Citizens Advice (2020). Advice trends December 2019. Available from: https://public.tableau.com/profile/citizensadvice#!/vizhome/AdviceTrendsDecember2019/Cover [Accessed 28 August 2020].

Collinson, P. & Jones, R. (2018). Wonga collapses into administration. *The Guardian*. 30 August.

Credit Card Accountability Responsibility and Disclosure Act (2009). *United States Congress Public Law*, 111–124

Cwynar, A., Cwynar, W., Patena, W. & Sibanda, W. (2020). Young adults' financial literacy and overconfidence bias in debt markets. *International Journal of Business Performance Management*, *21*, 95–113.

Da Silva, S., Da Costa, N., Matsushita, R., Vieira, C., Correa, A. & De Faveri, D. (2018). Debt of high-income consumers may reflect leverage rather than poor cognitive reflection. *Review of Behavioral Finance*, *10*, 42–52. https://doi.org/10.1108/RBF-07-2016-0046

Darriet, E., Guille, M., Vergnaud, J. C. & Shimizu, M. (2020). Money illusion, financial literacy and numeracy: experimental evidence. *Journal of Economic Psychology*, *76*, 102211. https://doi.org/10.1016/j.joep.2019.102211

Davies, E. & Lea, S. E. G. (1995). Student attitudes to student debt. *Journal of Economic Psychology*, *16*, 663–679.

de Matos, C. A., Vieira, V., Bonfanti, K. & Mette, F. M. B. (2019). Antecedents of indebtedness for low-income consumers: the mediating role of materialism. *Journal of Consumer Marketing*, *36*, 92–101. https://doi.org/10.1108/JCM-09-2017-2352

De Vita, G. & Luo, Y. (in press) Financialization, household debt and income inequality: empirical evidence. *International Journal of Finance & Economics*, https://doi.org/10.1002/ijfe.1886

Dearden, C., Goode, J., Whitfield, G. & Cox, L. (2010). *Credit and debt in low-income families*. York: Joseph Rowntree Foundation.

Değirmencioğlu, S. M. & Walker, C. (Eds.) (2015). *Social and psychological dimensions of personal debt and the debt industry*. Basingstoke, UK: Palgrave Macmillan.

Dellande, S., Gilly, M. C. & Graham, J. L. (2016). Managing consumer debt: culture, compliance, and completion. *Journal of Business Research*, *69*, 2594–2602. https://doi.org/10.1016/j.jbusres.2015.10.140

Department for Business Enterprise and Regulatory Reform (2007). *Tackling over-indebtedness: Annual Report 2007*. London: Author.

Department for Business Innovation and Skills (2010a). *Over-indebtedness in Britain: First follow-up report*. London: Author.

Department for Business Innovation and Skills (2010b). *Over-indebtedness in Britain: Second follow-up report*. London: Author.

Dew, J. (2008). Debt change and marital satisfaction change in recently married couples. *Family Relations*, *57*, 60–71. https://doi.org/10.1111/j.1741-3729.2007.00483.x

Dick, C. D. & Jaroszek, L. (2013). Knowing what not to do: financial literacy and consumer credit choices. *ZEW Working Papers*, *13*, 027.

Disney, R., Gathergood, J. & Weber, J. (2015). Credit counseling: a substitute for consumer financial literacy? *Journal of Pension Economics & Finance*, *14*, 466–491. https://doi.org/10.1017/S1474747215000219

Dominy, N. & Kempson, E. (2003). *Can't pay or won't pay? A review of creditor and debtor approaches to the non-payment of bills*. London: Department for Constitutional Affairs.

Donnelly, G., Chance, Z. & Norton, M. (2015). Piecemeal repayment: paying toward specific purchases promotes higher repayments toward debt balances. *Advances in Consumer Research*, *43*, 90–94.

Donnelly, G., Iyer, R. & Howell, R. T. (2012). The big five personality traits, material values, and financial well-being of self-described money managers. *Journal of Economic Psychology*, *33*, 1129–1142. https://doi.org/10.1016/j.joep.2012.08.001

Evans, J. St B. T. (2008). Dual-processing accounts of reasoning, judgment, and social cognition. *Annual Review of Psychology*, *59*, 255–278. https://doi.org/10.1146/annurev.psych.59.103006.093629

Farrell, L., Fry, T. R. L. & Risse, L. (2016). The significance of financial self-efficacy in explaining women's personal finance behaviour. *Journal of Economic Psychology*, *54*, 85–99. https://doi.org/10.1016/j.joep.2015.07.001

Fazio, R. H. (1990). Multiple processes by which attitudes guide behaviour: the MODE model as an integrative framework. In M. P Zanna (Ed.), *Advances in experimental social psychology*. San Diego, CA: Academic Press, pp. 75–109.

Fernandes, D., Lynch, J. G. & Netemeyer, R. G. (2014). Financial literacy, financial education, and downstream financial behaviors. *Management Science*, *60*, 1861–1883. https://doi.org/10.1287/mnsc.2013.1849

Fiksenbaum, L., Marjanovic, Z. & Greenglass, E. (2017). Financial threat and individuals' willingness to change financial behavior. *Review of Behavioral Finance*, *9*, 128–147. https://doi.org/10.1108/RBF-09-2016-0056

Fleming, A. (2016). City of Debtors: law, loan sharks, and the shadow economy of urban poverty, 1900–1970. *Enterprise & Society*, *17*, 734–740. https://doi.org/10.1017/eso.2016.70

French, D. & McKillop, D. (2016). Financial literacy and over-indebtedness in low-income households. *International Review of Financial Analysis*, *48*, 1–11. https://doi.org/10.1016/j.irfa.2016.08.004

Friedline, T. & Freeman, A. (2016). The potential for savings accounts to protect young-adult households from unsecured debt in periods of macroeconomic stability and decline. *Social Service Review*, *90*, 83–129. https://doi.org/10.1086/685791

Frigerio, M., Ottaviani, C. & Vandone, D. (2020). A meta-analytic investigation of consumer over-indebtedness: the role of impulsivity. *International Journal of Consumer Studies*, *44*, 328–342. https://doi.org/10.1111/ijcs.12570

Gaganis, C., Hasan, I. & Pasiouras, F. (2020). National culture and housing credit. *Journal of Empirical Finance*, *56*, 19–41. https://doi.org/10.1016/j.jempfin.2019.12.003

Gallmeyer, A. & Roberts, W. T. (2009). Payday lenders and economically distressed communities: a spatial analysis of financial predation. *Social Science Journal*, *46*, 521–538. https://doi.org/10.1016/j.soscij.2009.02.008

Ganzach, Y. & Amar, M. (2017). Intelligence and the repayment of high-and low-consequences debt. *Personality and Individual Differences*, *110*, 102–108. https://doi.org/10.1016/j.paid.2017.01.037

Gardarsdottir, R. B. & Dittmar, H. (2012). The relationship of materialism to debt and financial well-being: the case of Iceland's perceived prosperity. *Journal of Economic Psychology*, *33*, 471–481. https://doi.org/10.1016/j.joep.2011.12.008

Gathergood, J. (2012). Self-control, financial literacy and consumer over-indebtedness. *Journal of Economic Psychology*, *33*, 590–602. https://doi.org/10.1016/j.joep.2011.11.006

Gathergood, J. & Weber, J. (2014). Self-control, financial literacy & the co-holding puzzle. *Journal of Economic Behavior & Organization*, *107*, 455–469. https://doi.org/10.1016/j.jebo.2014.04.018

George, E. E., Hansen, M. E. & Routzahn, J. L. (2018). Debt tolerance, gender, and the Great Recession. *Journal of Consumer Affairs*, *52*, 711–732. https://doi.org/10.1111/joca.12184

Goedde-Menke, M., Erner, C. & Oberste, M. (2017). Towards more sustainable debt attitudes and behaviors: the importance of basic economic skills. *Journal of Business Economics*, *87*, 645–668. https://doi.org/10.1007/s11573-017-0854-8

Goyal, K. & Kumar, S. (2020). Financial literacy: a systematic review and bibliometric analysis. *International Journal of Consumer Studies*, https://doi.org/10.1111/ijcs.12605

Greig, B., Nuthall, P. & Old, K. (2019). Farmers' characteristics' and the propensity to reduce debt: the case for New Zealand (NZ) primary producers. *Agricultural Finance Review*, *79*, 614–632. https://doi.org/10.1108/AFR-02-2019-0020

Grinstein-Weiss, M., Spader, J. S., Yeo, Y. H., Key, C. C. & Freeze, E. B. (2012). Loan performance among low-income households: Does prior parental teaching of money management matter? *Social Work Research*, *36*, 257–270. https://doi.org/10.1093/swr/svs016

Harkin, B. (2017). Improving financial management via contemplation: novel interventions and findings in laboratory and applied settings. *Frontiers in Psychology*, *8*, 327. https://doi.org/10.3389/fpsyg.2017.00327

Harrison, N., Agnew, S. & Serido, J. (2015). Attitudes to debt among indebted undergraduates: a cross-national exploratory factor analysis. *Journal of Economic Psychology*, *46*, 62–73. https://doi.org/10.1016/j.joep.2014.11.005

Hartarska, V. & Gonzalez-Vega, C. (2006). Evidence on the effect of credit counseling on mortgage loan default by low-income households. *Journal of Housing Economics*, *15*, 63–79. https://doi.org/10.1016/j.jhe.2006.02.002

Haultain, S., Kemp, S. & Chernyshenko, O. S. (2010). The structure of attitudes to student debt. *Journal of Economic Psychology*, *31*, 322–330. https://doi.org/10.1016/j.joep.2010.01.003

Hayhoe, C. R., Leach, L. J., Turner, P. R., Bruin, M. J. & Lawrence, F. C. (2000). Differences in spending habits and credit use of college students. *Journal of Consumer Affairs*, *34*, 113–133.

Heidhues, P. & Koszegi, B. (2010). Exploiting naivete about self-control in the credit market. *American Economic Review*, *100*, 2279–2303. https://doi.org/10.1257/aer.100.5.2279

Hershfield, H. E. & Roese, N. J. (2015). Dual payoff scenario warnings on credit card statements elicit suboptimal payoff decisions. *Journal of Consumer Psychology*, *25*, 15–27. https://doi.org/10.1016/j.jcps.2014.06.005

Hershfield, H. E., Sussman, A. B., O'Brien, R. L. & Bryan, C. J. (2015). Leveraging psychological insights to encourage the responsible use of consumer debt. *Perspectives on Psychological Science*, *10*, 749–752. https://doi.org/10.1177/1745691615598514

Hoeve, M., Stams, G. J. J. M., van der Zouwen, M., Vergeer, M., Jurrius, K. & Asscher, J. J. (2014). A systematic review of financial debt in adolescents and young adults: prevalence, correlates and associations with crime. *Plos One*, *9*, e014909. https://doi.org/10.1371/journal.pone.0104909

Houle, J. N. (2014). A generation indebted: young adult debt across three cohorts. *Social Problems*, *61*, 448–465. https://doi.org/10.1525/sp.2014.12110

Houle, J. N. & Berger, L. (2017). Children with disabilities and trajectories of parents' unsecured debt across the life course. *Social Science Research*, *64*, 184–196. https://doi.org/10.1016/j.ssresearch.2016.10.006

Houle, J. N. & Warner, C. (2017). Into the red and back to the nest? Student debt, college completion, and returning to the parental home among young adults. *Sociology of Education*, *90*, 89–108. https://doi.org/10.1177/0038040716685873

Houle, J. N., Collins, J. M. & Schmeiser, M. D. (2015). Flu and finances: influenza outbreaks and loan defaults in US cities, 2004–2012. *American Journal of Public Health*, *105*, E75-E80. https://doi.org/10.2105/AJPH.2015.302671

Jenkins, R., Bhugra, D., Bebbington, P., Brugha, T., Farrell, M., Coid, J., et al. (2008). Debt, income and mental disorder in the general population. *Psychological Medicine*, *38*, 1485–1493. https://doi.org/10.1017/S0033291707002516

Jiang, S. S. & Dunn, L. F. (2013). New evidence on credit card borrowing and repayment patterns. *Economic Inquiry*, *51*, 394–407. https://doi.org/10.1111/j.1465-7295.2012.00456.x

Jones, L. E., Loibl, C. & Tennyson, S. (2015). Effects of informational nudges on consumer debt repayment behaviors. *Journal of Economic Psychology*, *51*, 16–33. https://doi.org/10.1016/j.joep.2015.06.009

Karwowski, E., Shabani, M. & Stockhammer, E. (2020). Dimensions and determinants of financialisation: comparing OECD countries since 1997. *New Political Economy*, *25*. https://doi.org/10.1080/13563467.2019.1664446

Kasser, T. (2016). Materialistic values and goals. *Annual Review of Psychology*, *67*, 489–514. https://doi.org/10.1146/annurev-psych-122414-033344

Kempson, E., McKay, S. & Willitts, M. (2004). Characteristics of households in debt and the nature of indebtedness. Department for Work and Pensions Research Reports.

Kettle, K. L., Trudel, R., Blanchard, S. J. & Haubl, G. (2016). Repayment concentration and consumer motivation to get out of debt. *Journal of Consumer Research*, *43*, 460–477. https://doi.org/10.1093/jcr/ucw037

Keys, B. J. & Wang, J. (2016). Minimum payments and debt paydown in consumer credit cards. *National Bureau of Economic Research Working Papers*, *22742*. https://doi.org/10.3386/w22742

Kim, K. T., Lee, J. & Hanna, S. D. (2020). The effects of financial literacy overconfidence on the mortgage delinquency of US households. *Journal of Consumer Affairs*, *54*, 517–540. https://doi.org/10.1111/joca.12287

Klapper, L. & Lusardi, A. (2019). Financial literacy and financial resilience: evidence from around the world. *Financial Management*, *49*, 489–614. https://doi.org/10.1111/fima.12283

Krumer-Nevo, M., Gorodzeisky, A. & Saar-Heiman, Y. (2016). Debt, poverty and financial exclusion. *Journal of Social Work*, *17*, 511–530. https://doi.org/10.1177/1468017316649330

Lea, S. E. G. (1999). Credit, debt and problem debt. In P. E. Earl & S. Kemp (Eds.), *The Elgar companion to consumer research and economic psychology*, pp. 139–143. Cheltenham: Edward Elgar.

Lea, S. E. G., Tarpy, R. M. & Webley, P. (1987). *The individual in the economy*. Cambridge, UK: Cambridge University Press.

Lea, S. E. G., Webley, P. & Bellamy, G. (2001). Student debt: expecting it, spending it and regretting it. In A. J. Scott, A. Lewis & S. E. G. Lea (Eds.), *Student debt*. Bristol: Policy Press, pp. 37–47.

Lea, S. E. G., Webley, P. & Levine, R. M. (1993). The economic psychology of consumer debt. *Journal of Economic Psychology*, *14*, 85–119. https://doi.org/10.1016/0167-4870(93)90041-I

Lea, S. E. G., Webley, P. & Walker, C. M. (1995). Psychological factors in consumer debt: money management, economic socialization, and credit use. *Journal of Economic Psychology*, *16*, 681–701. https://doi.org/10.1016/0167-4870(95)00013-4

Lee, J. M., Park, N. & Heo, W. (2019). Importance of subjective financial knowledge and perceived credit score in payday loan use. *International Journal of Financial Studies*, *7*, 53. https://doi.org/10.3390/ijfs7030053

Letkiewicz, J. C. & Heckman, S. J. (2018). Homeownership among young Americans: a look at student loan debt and behavioral factors. *Journal of Consumer Affairs*, *52*, 88–114. https://doi.org/10.1111/joca.12143

Letkiewicz, J. C. & Heckman, S. J. (2019). Repeated payment delinquency among young adults in the United States. *International Journal of Consumer Studies*, *43*, 417–428. https://doi.org/10.1111/ijcs.12522

Li, J. J., Jiao, C., Nicholas, S., Wang, J., Chen, G. & Chang, J. H. (2020). Impact of medical debt on the financial welfare of middle- and low-income families across China. *International Journal of Environmental Research and Public Health*, *17*, 4597. https://doi.org/10.3390/ijerph17124597

Li, Y., Gao, J., Enkavi, A. Z., Zaval, L., Weber, E. U. & Johnson, E. J. (2015). Sound credit scores and financial decisions despite cognitive aging. *Proceedings of the National Academy of Sciences of the United States of America*, *112*, 65–69. https://doi.org/10.1073/pnas.1413570112

Lin, L. Q., Revindo, M. D., Gan, C. & Cohen, D. A. (2019). Determinants of credit card spending and debt of Chinese consumers. *International Journal of Bank Marketing*, *37*, 545–564. https://doi.org/10.1108/IJBM-01-2018-0010

Lusardi, A. & Tufano, P. (2015). Debt literacy, financial experiences, and overindebtedness. *Journal of Pension Economics & Finance*, *14*, 332–368. https://doi.org/10.1017/S1474747215000232

McCloud, L. & Dwyer, R. E. (2011). The fragile American: hardship and financial troubles in the 21st century. *Sociological Quarterly*, *52*, 13–35. https://doi.org/10.1111/j.1533-8525.2010.01197.x

McHugh, S., Ranyard, R. & Lewis, A. (2011). Understanding and knowledge of credit cost and duration: effects on credit judgements and decisions. *Journal of Economic Psychology*, *32*, 609–620. https://doi.org/10.1016/j.joep.2011.02.005

McNeill, L. S. (2014). The place of debt in establishing identity and self-worth in transitional life phases: young home leavers and credit. *International Journal of Consumer Studies*, *38*, 69–74. https://doi.org/10.1111/ijcs.12065

Meltzer, H., Bebbington, P., Brugha, T., Jenkins, R., McManus, S. & Dennis, M. S. (2011). Personal debt and suicidal ideation. *Psychological Medicine*, *41*, 771–778. https://doi.org/10.1017/S0033291710001261

Mewse, A. J., Lea, S. E. G. & Wrapson, W. (2010). First steps out of debt: attitudes and social identity as predictors of contact by debtors with creditors. *Journal of Economic Psychology*, *31*, 1021–1034. https://doi.org/10.1016/j.joep.2010.08.009

Morgan, D. P., Strain, M. R. & Seblani, I. (2012). How payday credit access affects overdrafts and other outcomes. *Journal of Money Credit and Banking*, *44*, 519–531. https://doi.org/10.1111/j.1538-4616.2011.00499.x

Norvilitis, J. M. & MacLean, M. G. (2010). The role of parents in college students' financial behaviors and attitudes. *Journal of Economic Psychology*, *31*, 55–63. https://doi.org/10.1016/j.joep.2009.10.003

Norvilitis, J. M., Merwin, M. M., Osberg, T. M., Roehling, P. V., Young, P. & Kamas, M. M. (2006). Personality factors, money attitudes, financial knowledge, and credit-card debt in college students. *Journal of Applied Social Psychology*, *36*, 1395–1413.

Oksanen, A., Aaltonen, M. & Rantala, K. (2015). Social determinants of debt problems in a Nordic welfare state: a Finnish register-based study. *Journal of Consumer Policy*, *38*, 229–246. https://doi.org/10.1007/s10603-015-9294-4

Oksanen, A., Aaltonen, M. & Rantala, K. (2016). Debt problems and life transitions: a register-based panel study of Finnish young people. *Journal of Youth Studies*, *19*, 1184–1203. https://doi.org/10.1080/13676261.2016.1145638

Oksanen, A., Aaltonen, M., Majamaa, K. & Rantala, K. (2017). Debt problems, home-leaving, and boomeranging: a register-based perspective on economic consequences of moving away from parental home. *International Journal of Consumer Studies*, *41*, 340–352. https://doi.org/10.1111/ijcs.12348

Olson, J. G. & Rick, S. I. (2014). Managing debt and managing each other: debt management decisions in interpersonal contexts. *Advances in Consumer Research*, *42*, 184–188.

Ong, Q., Theseira, W. & Ng, I. Y. H. (2019). Reducing debt improves psychological functioning and changes decision-making in the poor. *Proceedings of the National Academy of Sciences of the United States of America*, *116*, 7244–7249. https://doi.org/10.1073/pnas.1810901116

Ottaviani, C. & Vandone, D. (2011). Impulsivity and household indebtedness: evidence from real life. *Journal of Economic Psychology*, *32*, 754–761. https://doi.org/10.1016/j.joep.2011.05.002

Ottaviani, C. & Vandone, D. (2018). Financial literacy, debt burden and impulsivity: a mediation analysis. *Economic Notes*, *47*, 439–453. https://doi.org/10.1111/ecno.12115

Peltier, J.W., Dahl, A. J. & Schibrowsky, J. E. (2016). Sequential loss of self-control: exploring the antecedents and consequences of student credit card debt. *Journal of Financial Services Marketing*, *21*, 167–181. https://doi.org/10.1057/s41264-016-0002-5

Polletta, F. & Tufail, Z. (2014). The moral obligations of some debts. *Sociological Forum*, *29*, 1–28.

Popovich, J. J., Loibl, C., Zirkle, C. & Whittington, M. S. (2020). Community college students' response to a financial literacy intervention: an exploratory study. *International Review of Economics Education*, *34*, 100182. https://doi.org/10.1016/j.iree.2020.100182

Potrich, A. C. G. & Vieira, K. M. (2018). Demystifying financial literacy: a behavioral perspective analysis. *Management Research Review*, *41*, 1047–1068. https://doi.org/10.1108/MRR-08-2017-0263

Prager, R. A. (2014). Determinants of the locations of alternative financial service providers. *Review of Industrial Organization*, *45*, 21–38. https://doi.org/10.1007/s11151-014-9421-4

Ranyard, R. & Craig, G. (1995). Evaluating and budgeting with instalment credit: an interview study. *Journal of Economic Psychology*, *16*, 449–467. https://doi.org/10.1016/0167-4870(95)00020-O

Ranyard, R., Hinkley, L., Williamson, J. & McHugh, S. (2006). The role of mental accounting in consumer credit decision processes. *Journal of Economic Psychology*, *27*, 571–588. https://doi.org/10.1016/j.joep.2005.11.001

Ranyard, R., McHugh, S. & McNair, S. (2017). The psychology of borrowing and over-indebtedness. In R. Ranyard (Ed.), *Economic psychology*. Chichester, UK: Wiley-Blackwell, pp. 222–238.

Salisbury, L. C. (2014). Minimum payment warnings and information disclosure effects on consumer debt repayment decisions. *Journal of Public Policy & Marketing*, *33*, 49–64. https://doi.org/10.1509/jppm.11.116

Seaward, H. G. W. & Kemp, S. (2000). Optimism bias and student debt. *New Zealand Journal of Psychology*, *29*, 17–19.

Seuntjens, T. G., van de Ven, N., Zeelenberg, M. & van der Schors, A. (2016). Greed and adolescent financial behavior. *Journal of Economic Psychology*, *57*, 1–12. https://doi.org/10.1016/j.joep.2016.09.002

Shah, A. K., Mullainathan, S. & Shafir, E. (2012). Some consequences of having too little. *Science*, *338*, 682–685. https://doi.org/10.1126/science.1222426

Simmons, P. J. (1974). *Choice and demand*. London: Macmillan.

Singh, S., Rylander, D. H. & Mims, T. C. (2018). Understanding credit card payment behavior among college students. *Journal of Financial Services Marketing*, *23*, 38–49. https://doi.org/10.1057/s41264-018-0042-0

Sipon, S., Othman, K., Ghani, Z. A. & Radzi, H. M. (2014). The impact of religiosity on financial debt and debt stress. *Procedia - Social and Behavioral Sciences*, *140*, 300–306. https://doi.org/10.1016/j.sbspro.2014.04.424

Skiba, P. M. (2014). Tax rebates and the cycle of payday borrowing. *American Law and Economics Review*, *16*, 550–576. https://doi.org/10.1093/aler/aht022

Snelders, H. M. J. J., Lea, S. E. G., Webley, P. & Hussein, G. (1992). The polymorphous concept of money. *Journal of Economic Psychology*, *13*, 71–92. https://doi.org/10.1016/0167-4870(92)90053-A

Stavins, J. (2020). Credit card debt and consumer payment choice: what can we learn from credit bureau data? *Journal of Financial Services Research*, *58*, 59–90. https://doi.org/10.1007/s10693-019-00330-8

Step Change Debt Charity (2017). *The high cost of credit*. London: Author.

Stewart, N. (2009). The cost of anchoring on credit-card minimum repayments. *Psychological Science*, *20*, 39–41. https://doi.org/10.1111/j.1467-9280.2008.02255.x

Stone, B. & Maury, R. V. (2006). Indicators of personal financial debt using a multi-disciplinary behavioral model. *Journal of Economic Psychology*, *27*, 543–556. https://doi.org/10.1016/j.joep.2005.11.002

Strickland, J. C. & Johnson, M. W. (in press) Rejecting impulsivity as a psychological construct: a theoretical, empirical, and sociocultural argument. *Psychological Review*, https://doi.org/10.1037/rev0000263

Sullivan, T. A., Warren, E. & Westbrook, J. L. (1989). *As we forgive our debtors*. New York: Oxford University Press.

Sussman, A. B. & O'Brien, R. L. (2016). Knowing when to spend: unintended financial consequences of earmarking to encourage savings. *Journal of Marketing Research*, *53*, 790–803. https://doi.org/10.1509/jmr.14.0455

Szajngarten, R. A. (2015). Payday loans and globalization in the age of the Internet – policy recommendations. *Journal of Money Laundering Control*, *18*, 252–265. https://doi.org/10.1108/JMLC-05-2015-0016

Tangney, J. P., Baumeister, R. F. & Boone, A. L. (2004). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. *Journal of Personality*, *72*, 271–324. https://doi.org/10.1111/j.0022-3506.2004.00263.x

Timmons, S., McGowan, F. P. & Lunn, P. D. (2019). Setting defaults for online banking transactions: experimental evidence from personal loan repayment terms. *Journal of Behavioral and Experimental Finance*, *23*, 161–165. https://doi.org/10.1016/j.jbef.2019.06.002

Tufail, Z. & Polletta, F. (2015). The gendering of emotional flexibility: why angry women are both admired and devalued in debt settlement firms. *Gender & Society*, *29*, 484–508. https://doi.org/10.1177/0891243215569050

Walker, C. M. (1996a). Financial management, coping and debt in households under financial strain. *Journal of Economic Psychology*, *17*, 789–807. https://doi.org/10.1016/S0167-4870(96)00036-0

Walker, C. M. (1996b). The psychology of debt in the 1990. Unpublished PhD thesis: University of Exeter.

Walker, C., Burton, M., Akhurst, J. & Degirmencioglu, S. M. (2015). Locked into the system? Critical community psychology approaches to personal debt in the context of crises of capital accumulation. *Journal of Community & Applied Social Psychology*, *25*, 264–275. https://doi.org/10.1002/casp.2209

Walker, C., Hanna, P., Cunningham, L. & Ambrose, P. (2015). Parasitic encounters in debt: the UK mainstream credit industry. *Theory & Psychology*, *25*, 239–256. https://doi.org/10.1177/0959354315574929

Walks, A. (2013). Mapping the urban debtscape: the geography of household debt in Canadian cities. *Urban Geography*, *34*, 153–187. https://doi.org/10.1080/02723638.2013.778647

Webley, P. & Nyhus, E. K. (2001). Life-cycle and dispositional routes into problem debt. *British Journal of Psychology*, *92*, 423–446. https://doi.org/10.1348/000712601162275

Webley, P. & Nyhus, E. K. (2006). Parents' influence on children's future orientation and saving. *Journal of Economic Psychology*, *27*, 140–164. https://doi.org/10.1016/j.joep.2005.06.016

West, S. & Friedline, T. (2016). Coming of age on a shoestring budget: financial capability and financial behaviors of lower-income millennials. *Social Work*, *61*, 305–312. https://doi.org/10.1093/sw/sww057

Williams, A. J. & Oumlil, B. (2015). College student financial capability: A framework for public policy, research and managerial action for financial exclusion prevention. *International Journal of Bank Marketing*, *33*, 637–653. https://doi.org/10.1108/IJBM-06-2014-0081

Willis, L. E. (2011). The financial education fallacy. *American Economic Review*, *101*, 429–434. https://doi.org/10.1257/aer.101.3.429

Wrapson, W., Mewse, A. J. & Lea, S. E. G. (2007). Social identity and attitudes in problem debt In M. Polič B. Bajec & L. Komidar (Eds.), *Values and economy: Proceedings of the 32nd IAREP Conference*, (344–350). Ljubljana: Editors.

Yabroff, K. R., Zhao, J. X., Han, X. S. & Zheng, Z. Y. (2019). Prevalence and correlates of medical financial hardship in the USA. *Journal of General Internal Medicine*, *34*, 1494–1502. https://doi.org/10.1007/s11606-019-05002-w

Zinman, J. (2010). Restricting consumer credit access: household survey evidence on effects around the Oregon rate cap. *Journal of Banking & Finance*, *34*, 546–556. https://doi.org/10.1016/j.jbankfin.2009.08.024

Zinman, J. (2015). Household debt: facts, puzzles, theories, and policies. *Annual Review of Economics*, *7*, 251–276. https://doi.org/10.1146/annurev-economics-080614-115640

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