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Investigating Irrational Inactivity

A Prototype Analysis of Financial Inertia

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Abstract

As inertia lacks a comprehensive definition, this thesis aids the formulation of a singular yet widely applicable definition. This is accomplished by examining the feasibility of definitions obtained through the scientific literature (a top-down approach) and laypeople (a bottom-up approach). A single definition for inertia proves to be elusive due to inertia's many different uses, interpretations, and overlap with other constructs. For this reason, several distinguishing features were identified to differentiate inertia. In addition, a dichotomy between inertia as a behaviour and tendency was proposed to reconcile contradictions within the literature. Nevertheless, a classical definition with clear boundaries proved to be problematic. Therefore, a bottom-up approach examined through a prototype analysis whether inertia may have a prototype structure. In this case, inertia is best explained through many distinct, yet overlapping concepts instead of a few boundary conditions. In Study 1, participants freely generated features of financial decision-making. In Study 2, the resultant features were adapted to financial inertia and were tested for their representativeness. These preliminary analyses indicated that inertia might indeed have a prototype structure as numerous features were considered central to inertia. While these inferences are somewhat tentative until inertia's prototype structure is fully confirmed in subsequent tests, there are indications that the dichotomy following from the topdown approach may mirror patterns in the most centrally rated features from the bottom-up approach.

Investigating Irrational Inactivity: A Prototype Analysis of Financial Inertia

Most people want to make sound financial decisions and want the best offers (Adena et al., 2017; Richards, 2015; Webb & Sheeran, 2006). This can be a challenge in the financial service context (e.g., healthcare or pensions) as available offers change regularly, and where an option that was at one point the best might later be inferior. Accordingly, people are allowed to evaluate their current plan and switch to another, better option regularly.

Financial inertia occurs when consumers fail to reconsider their current plan and stick with it by default. This does not describe cases where inaction reflects an intentional decision (when one already has the best available pension, for instance). Instead, it characterises an inadvertent persistence in the status quo caused by a lack of intervention (Henderson et al., 2021). In this sense, the current interpretation of financial inertia hardly differs in meaning to inertia; the only difference between the two is the former's application to the financial setting. Therefore, it can be assumed that what applies to inertia also applies to financial inertia.

There are several reasons why research into inertia is needed. Firstly, consumer welfare is very susceptible to adverse selection in financial services (Lustig, 2010), with consumers forgoing an average of \$2,032 every year due to the interaction of inertia and adverse selection (Handel, 2013). Secondly, inertia makes consumers susceptible to a "bargains-then-ripoffs" pricing strategy, where firms set low introductory rates which they later steadily raise to up to four times the initial rate (Farrell & Klemperer, 2006; Han et al., 2014). Thirdly, inertia can cause as many as 88.7% of dissatisfied consumers to stay with a firm despite being dissatisfied (Colgate & Lang, 2001; Han et al., 2014). This is problematic, given that consumer dissatisfaction can lead to increased stress (Andreasen, 1984), which is harmful to one's mood, well-being, behaviour, and health (e.g., Schneiderman et al., 2005). Research into inertia may reveal what happens when and why people are inert and could therefore help reduce these effects.

Research into inertia could also be beneficial to service providers and markets. For service providers, it could provide a better understanding of why consumers fail to switch. This is necessary for the development of marketing strategies (Fornell & Wernerfelt, 1987). Furthermore, it could aid in attracting and retaining prospective switchers (Mittal & Lassar, 1998; Reichheld & Sasser, 1990), which make up a substantial part of service providers' customer base (Colgate & Lang, 2001; Han et al., 2014). This is crucial, given that the cost of attracting new customers is five to nine times higher than retaining old ones (Raphel & Raphel, 1995). Furthermore, inertia causes inconsistent price elasticity when it affects demand (Gentile et al., 2019; Pot et al., 2013). This disrupts market equilibrium, ultimately leading to further consumer welfare loss (Hajispyrou et al., 2002).

In sum, inertia has a profound negative impact on (consumer) welfare through broad implications for consumers directly, businesses, and market functioning. Currently, a generally agreed-upon definition, as well as consensus regarding the meaning of inertia, are lacking in the literature (Bozzo, 2002; Carter et al., 2016). This is problematic because the accurate description of phenomena constitutes a key component of social science advancement (Asch, 1952); it provides a basis for theories and hypotheses to build upon, and therefore ideally precedes hypothesis testing (Rozin, 2009).

The current study fills this gap by aiding the formulation of a comprehensive definition that is measurable, adaptable, and relevant to multiple disciplines. To achieve this, I will first clarify the aforementioned disorder and review how researchers use inertia in the various social sciences. I will then analyse the feasibility of a top-down definition of inertia by establishing distinguishing features of inertia and a dichotomy that helps resolve the disorder. This analysis suggests that a top-down definition is problematic. Consequently, I propose that a prototypical structure may better fit inertia and that a better understanding of inertia may be attained through

a bottom-up prototype analysis. This thesis will then conclude with the first two studies of said prototype analysis.

Literature Review: How Has Inertia Been Conceptualised and Defined by Researchers?

The term "inertia" finds its origins in Newtonian physics' first law of motion. It describes the phenomenon that a moving object will keep moving in the same direction in the absence of external forces. Its Latin predecessor, *iners*, refers to sluggishness or inactivity. Together, these words capture the essence of inertia as it is meant in this thesis: persistence in the status quo (i.e., sluggishness) due to a lack of intervention (i.e., inactivity). In physics, little ambiguity exists regarding inertia's definition as it has been used consistently for centuries (Coelho, 2006; Jennison & Drinkwater, 1977). This contrasts with inertia in social sciences, where significant disorder exists around its definition and use (Bozzo, 2002; Cui et al., 2020).

The cause for the disorder around inertia in social sciences could be that it seems to be pervasive in human decision-making (Alós-Ferrer et al., 2016). Accordingly, inertia manifests itself in numerous different contexts and disciplines, resulting in significantly different definitions. For example, the concept inertia has been used in medicine to describe a health provider's failure to act or intensify therapy when needed (*clinical inertia*; Phillips et al., 2001), in psychology to describe the effect that people tend to maintain the status quo (*psychological inertia*; Gal, 2006), and in marketing to describe consumers' persistence in repurchasing the same product or service (*consumer inertia*; Lee & Neale, 2012). Concomitant to inertia's differing definitions, its terminology is frequently applied ambiguously (i.e., the same term for different concepts with unclear meanings), inconsistently (i.e., different terms for the same concept), and incorrectly (i.e., the incorrect term for a concept; Dunne, 2007).

For example, psychological inertia denotes different concepts depending on the context, which leads to ambiguity regarding its meaning. It is defined as "...the process by which social-

cognitive variables help maintain behavioral patterns over time..." (in criminology; Walters & Espelage, 2018, p. 1), "...resistance to change..." (in management science, Godkin & Allcorn, 2008, p. 6; Huang et al., 2013), or "...a propensity to remain at the status quo..." (in psychology; Gal, 2006, p. 24). In criminology, psychological inertia reflects a process determined by external variables, while it appears to reflect an innate personality trait in management and psychology. Also, it is unclear whether psychological inertia is a process, a tendency, or simply a resistance to change. Such ambiguous terminology is problematic because it can give rise to confusion and misunderstanding (Dunne, 2007).

An example of inconsistent use of inertia is found in marketing, where researchers use different terms to describe identical concepts. Namely, consumers' persistence in the repurchase of the same product or service has been referred to as *brand choice inertia* (e.g., Jeuland, 1979; Keane, 1997; Seetharaman et al., 1999), *consumer inertia* (e.g., Dubé et al., 2010; Gray et al., 2017; Lee & Neale, 2012), or just *inertia* (e.g., Bawa, 1990; Huang & Yu, 1999; Ito et al., 2020). Such inconsistencies are problematic for several reasons. Firstly, they may cause results to be misrepresented or misinterpreted by readers (Fraser et al., 2015). Secondly, they may generate further inconsistencies as they are propagated in subsequent research (Dunne, 2007). Lastly, they lead to unnecessary complexity of an already complex concept, increasing the effort necessary to read and understand the literature (Dunne, 2007).

As a possible by-product of inertia's ambiguous and inconsistent use, inertia is also used incorrectly. For example, some authors equate *action inertia* to *action loyalty* and describe it as "...commitment to the action of rebuying" (Oliver, 2010, p. 434; Evanschitzky & Wunderlich, 2006; Oliver, 1999). However, most researchers explicitly express that inertia is distinct from loyalty since inertia is far from a conscious commitment (e.g., Cui et al., 2020; Dick & Basu, 1994; Wu, 2011a). Other examples of incorrect usage are when inertia is erroneously conflated

with related, but distinct, concepts such as *habit* (Leppäniemi et al., 2017), *inability to change* (Yadav & Varadarajan, 2005), and *status quo bias* (González et al., 2017).

In sum, many authors have conceived their own interpretations of inertia, often suited to the specific contexts in which they work. Consequently, a generalizable definition for inertia is absent. This lead to a high degree of disorder as inertia is used and defined ambiguously, inconsistently, and incorrectly in the social sciences literature. Potential consequences are confusion, misunderstanding, misinterpretation, and incorrect usage of the term inertia (Dunne, 2007).

Comparative Concept Analysis: A Differentiation

Because the general tendency to resist change is well-documented in the psychological literature (e.g., Anderson, 2003), a wealth of concepts highly similar to inertia have already been established, such as habit, procrastination, and loyalty (Lee & Neale, 2012). The behaviour associated with inertia—continuing current behaviour (e.g., repeated buying or inaction)—is shared with these concepts. This means that too many behaviours may be understood to be inert judging by observation alone. Therefore, defining inertia by its behaviour is insufficient. In this case, the definition needs sharpening through theoretical analysis instead of empirical observation (Anderson, 2007). Accordingly, what follows next is a comparative analysis of constructs that overlap conceptually with inertia. Fundamental features that differ between inertia and these concepts must be identified to allow for discrimination of inertia, thereby enhancing conceptual clarity (Nuopponen, 2010). Also, it enables inertia to be defined based on the literature but without the interference of existing definitions (Xin et al., 2013).

Procrastination is perhaps the most well-known phenomenon that explains our preference for options that avoid or postpone change. It is generally accepted to refer to the voluntary delay of work that one intended on performing, despite expecting adverse effects

from the delay (e.g., Haghbin, 2015; Krause & Freund, 2014; Schouwenburg, 1992; Solomon & Rothblum, 1984; Steel, 2007;). Based on this definition, inertia and procrastination may be differentiated on consciousness and intent. Since procrastination is defined as a voluntary delay, it must be conscious (Morsella et al., 2016). Inertia, on the other hand, has been argued to reflect a non-conscious process (Ranaweera & Neely, 2003) and has therefore been contrasted with (conscious) brand loyalty (Huang & Yu, 1999). This contrast is supported by a difference between brand loyalty and inertia in the degree of involvement, with inertia representing the lower end of the involvement spectrum (Solomon, 1994). This lack of involvement could explain why inertial consumers fail to switch when dissatisfied (Yanamandram & White, 2004). Lastly, inertia's non-consciousness also finds empirical support through the finding that inertia may be driven by subconscious switching costs (e.g., loyalty; Dubé et al., 2010).

Furthermore, whereas procrastination always involves an intent to do something, intention is not necessary for inertia: logically speaking, one that is inert can be so without any intent to make changes. Hypothetically speaking, a lack of intent could even be why someone is inert, to begin with (e.g., van Putten et al., 2016)—a proposition supported by the finding that higher rates of inertia were directly and negatively associated with intentions to switch (Gray et al., 2017). This lack of intention is also what separates inertia from *decision avoidance*. Anderson (2003) defined decision avoidance as the tendency to avoid making a decision in a way that can be consistent with one's intentions. Later, he proposed a framework that categorises forms of decision avoidance based on the intention regarding a decision (i.e., seeking or avoiding) and whether the avoidance is passive or active (Anderson, 2007). The latter further aids distinction with inertia, as inertia has been argued to be fundamentally passive (Huang & Yu, 1999; Lee & Neale, 2012) while decision avoidance may also be active (and therefore conscious). In sum, inertia's passiveness, non-consciousness, and lack of an intent may help differentiate inertia despite considerable conceptual overlap.

To Have Inertia or to Be Inert: A Dichotomy

While distinguishing features may help differentiate inertia in some cases, their status is not always known or may be debatable (Cui et al., 2020). In such cases, it is necessary to consider other factors to classify inertia. For example, inertia also significantly overlaps with *default effects*. Default effects occur when a pre-selected option is more likely to be chosen than other options (Jachimowicz et al., 2019). The passive nature of inertia means it often coincides with default effects and might even give rise to default effects when inertia results in non-adjustment of the default option (Madrian & Shea, 2001; Mitchell & Utkus, 2003). Thus, to distinguish between inertia and default effects, it is necessary to classify inertia as a behaviour, i.e., non-adjustment, and default effects as a result of this behaviour.

The classification of inertia as a behaviour is not only essential to distinguish inertia, but it also highlights a fundamental dichotomy of inertia in the social sciences literature. Namely, inertia has been described both as a behaviour (e.g., Bozzo, 2002; Leppäniemi et al., 2017; Nicolau, 2010) and a tendency (e.g., Bawa, 1990; Gray et al., 2017; Pitz, 1969). As mentioned before, inertial behaviour alone is insufficient to denominate inertia. Namely, one that is (behaviourally) inert may also be said to procrastinate, exhibit a status quo bias, or demonstrate default effects. Prior research has not always made this distinction, which has led to the conflation of inertia with loyalty (Oliver, 1999) and habit (Leppäniemi et al., 2017). Accordingly, to classify inertia, it is necessary to consider inertia both as an observable behaviour and a driver of behaviour, i.e., a tendency.

Behaviour has generally been defined as inertial when it induces persistence of the status quo (through repeat purchase or non-switching, for example; Dubé et al., 2010; Fishman & Rob, 2003; Handel, 2013; Wu, 2011b). In this case it is also referred to as action inertia (Leppäniemi et al., 2017) or *behavioural inertia* (Shiu & Tzeng, 2018). Some scholars specify other conditions such as repeat behaviour without commitment and conscious thought, where

behaviour is continued to save cognitive resources (Solomon, 1994; Yanamandram & White, 2004). That said, the most robust explanations describe a dependency on previous experience or behaviour in deciding current behaviour, also known as *state dependence* (e.g., Alós-Ferrer et al., 2016; Bozzo, 2002; Dubé et al., 2010; Karayel, 2020; Seetharaman et al., 1999).

On the other hand, inertia has been described as the tendency to resist change through inactivity in defiance of optimal behaviour (e.g., Daglish, 2016; Krijnen et al., 2016; Li et al., 2016; Zhao et al., 2012). Within this interpretation, the predominant view is that inertia is a cumulation of personal factors, each of which may passively and non-consciously drive maintenance of the status quo (Gal, 2006; Li et al., 2016). In that case, the strength of inertia depends on the aggregate of an individual's characteristics. For instance, one's inertial tendency may be influenced by whether an individual is a variety avoider or seeker (Givon, 1984) or by the range of service performance that one finds acceptable, with a broader range leading to more substantial inertia (e.g., Egan, 2004; Khajouei & Nayebzadeh, 2013). Scholars have discussed a wide variety of such characteristics, such as the degree of involvement or commitment (e.g., Huang & Yu, 1999; Solomon, 1994), inherent laziness, passivity, or inactivity (Beckett, 2000; Bozzo, 2002; Gray et al., 2017), preference for the status quo (Ye, 2005), perception of switching costs (Colgate & Lang, 2001; Yanamandram & White, 2010), and motivation to look for alternatives (Cheng et al., 2011; Pitta et al., 2006). While these characteristics are not stable enough to suggest that inertia is a personality trait, it is understandable why inertia may be seen as a part of human nature (Cui et al., 2020).

The dichotomy of inertia as a behaviour or a tendency has been pointed out before (e.g., Cui et al., 2020; Polites & Karahanna, 2012; Shiu & Tzeng, 2018). However, it has perhaps received insufficient attention since it can explain and resolve contradictions in the literature. Namely, whether inertia is viewed as a behaviour, tendency, or something else is not always made explicit. Consequently, authors may appear to contradict each other while, in reality, their

viewpoints relate to different components of inertia. Accordingly, such contradictions may be resolved by distinguishing between inertia as a tendency and inertia as a behaviour.

How this dichotomy can resolve contradictions may be illustrated through an examination of spurious loyalty. Spurious loyalty is a type of customer loyalty that is much discussed in relation to inertia (e.g., Han et al., 2011; Jeuland, 1979; Wu, 2011a) because of significant conceptual overlap (Dick & Basu, 1994). Similar to (behavioural) inertia, spurious loyalty occurs at the lower end of the involvement spectrum (Solomon, 1994). Consequently, spurious loyalty and (behavioural) inertia have been conflated as they have both been used to refer to repeat purchase characterised by low relative attitude (i.e., Assael, 1998; Gounaris & Stathakopoulos, 2004; Lai et al., 2011; Rahantoknam et al., 2017). However, this is not a universally adopted view. Namely, lacking an intrinsic motivation to remain loyal, spuriously loyal customers are passively and non-consciously directed towards repeat purchase by situational factors (Dick & Basu, 1994). In other words, spuriously loyal customers' buying behaviour may be driven by habit, familiarity, price, location, or other situational factors such as a lack of alternatives (Baloglu, 2001; Olsen et al., 2013). With this in mind, scholars have explicitly differentiated between inertia and spurious loyalty by arguing that the tendency to be inert can be one of the situational factors that generate spurious loyalty (Cui et al., 2020; Wu, 2011a). Without making the dichotomy between inertia as a behaviour and a tendency, it would be impossible to reconcile these two perspectives. However, by making this dichotomy, the contradiction may be easily explained by some viewing inertia as a behaviour and others viewing inertia as a tendency.

A (Classical) Definition for Inertia

While one may discriminate inertia through its distinguishing features, the question remains how inertia should be defined. Given that I propose a dichotomy between inertia as a

Affirmatively, this is what Cui et al. (2020) did when they set out to define consumer inertia by summarising the direct definitions of inertia in the literature. As they also concluded that there is a fundamental dichotomy between inertia as a behaviour and a tendency, they proposed two definitions for the respective types of consumer inertia. *Consumer inertia type 1* (CI1) is repeated purchase behaviour caused by a lack of energy, desire, or ability to change. *Consumer inertia type 2* (CI2) is the tendency to continue repurchasing unless others factors¹ break it.

As mentioned before, I posit that inertia may be distinguished based on its non-consciousness, passiveness, and absence of intent. Interestingly, components specified in Cui et al.'s (2020) definitions are quite different from these features. Part of this difference may be attributed to the different approaches employed. More importantly, however, it mirrors the trend of the literature where different researchers highlight different features of inertia. This indicates that inertia is an inherently fuzzy concept with ill-defined boundaries.

For fuzzy concepts, classical definitions (like those in the dictionary) are not always possible (Medin & Smith, 1981). This is because concepts have a definitional structure in classical theory (Laurence & Margolis, 1999). This means that they can be precisely construed through clearly defined boundaries (Fehr, 1986). Such definitions provide conditions that are individually necessary and jointly sufficient. For example, April Fool's Day may be classically defined as "April 1st, when people play practical jokes on each other." Both conditions in this definition are needed to define April Fool's Day, and together they are enough to do so.

What further complicates a classical definition is that it requires two mutually exclusive criteria: rigour and coverage (Gregg et al., 2008). Sufficient rigour means it lends itself well to scientific fundamentals like operationalisation (Kinsella et al., 2015). Sufficient coverage means a definition is relevant and adequately reflects reality or people's experience of the

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¹ In CI2, "other factors" may be both internal factors (e.g., individual attributes) and external factors (e.g., switching costs)

concept (Gregg et al., 2008). In the social sciences literature, definitions of inertia are highly diverse, successfully operationalising certain aspects of inertia but neglecting others. For example, "... the experienced absence of goal-directed behavior" (Zeelenberg & Pieters, 2004, p. 449) precisely and concisely describes the passive behaviour associated with inertia. However, it overlooks other aspects such as its non-consciousness or its manifestation as a tendency. It seems most definitions of inertia are predominantly rigorous and therefore insufficiently cover inertia's complexity.

A Prototype Analysis

Formulating a classical definition of inertia proves problematic, especially when it has to suffice in both rigour and coverage (Russell, 1991). In such cases, a potential solution can be found in the prototype theory, which opposes the classical theory's assumptions. Rosch (1975) argued convincingly that many concepts do not have a definitional structure and instead have a prototypical structure. Highly prototypical concepts share most features with other category members and least features with other categories. Such concepts have blurry and ill-defined boundaries (Fehr, 1986), as seems to be the case with inertia. If inertia has a prototypical structure, it would involve multiple overlapping components that share family resemblance rather than one unifying common feature (Stern, 2004). Given inertia's many uses, definitions, and overlap with other constructs, this is plausible.

To deduce the structure of prototypical concepts, a prototype analysis is performed. Such analyses have been used in the past to examine the internal structure of complex concepts such as love and commitment (Fehr, 1986), relationship quality (Hassebrauck, 1997), and romantic love (Regan et al., 1998). More recently, they have also been employed to examine inherently fuzzy concepts such as gratitude (Lambert et al., 2009), nostalgia (Hepper et al., 2012), modesty (Gregg et al., 2008), hope (Luo et al., 2020), and greed (Seuntjens et al., 2015.

A prototype analysis is a bottom-up approach where laypeople are asked to produce features they deem important to describe a concept. Independent coders then evaluate and categorise these features into larger sets of features. The most frequently generated features are then scored (by laypeople) on their centrality (i.e., representativeness), identifying the features most central to the concept. To confirm that a concept has a prototypical structure, Rosch (1975) posited that participants should be able to rate the centrality of features reliably and that these ratings should predict cognitive performance (e.g., improved recall of statements of inertia that contain central features as opposed to peripheral features).

Examining laypeople's conceptions of inertia in this way has several benefits. Firstly, it offers the opportunity to gain insight into inertia's internal structure without preoccupation with theoretical constraints or researcher bias (Luo et al., 2020). Secondly, it allows us to generate a picture of how people experience inertia. In this way, adequate conceptual coverage may be attained through this bottom-up approach, while sufficient rigour can be ensured by incorporating the researcher's definitions of inertia. Thirdly, an understanding of inertia's internal structure enables a new method for the measurement of inertia. Namely, the degree of inertia in an individual may be assessed through a questionnaire by evaluating their scores on inertia's most central features. Lastly, a prototype analysis would clarify the importance of the various features of inertia mentioned in the literature (Gregg et al., 2008).

To allow for the above, the current study will perform the first steps of a prototype analysis. First, it will explore what features laypeople associate with financial decision-making. Then, it will explore the centrality of those features in financial inertia. Lastly, it will critically evaluate what we may learn about inertia from the top-down and bottom-up approaches together.

Method

Overview of Studies

The current thesis consists of the first two studies in a prototype analysis. This project will eventually contribute to a formal definition of financial inertia and an instrument capable of measuring individual differences in financial inertia. In the current studies, we followed the procedures that many other prototype studies have used (e.g., Hepper et al., 2012; Luo et al., 2020; Seuntjens et al., 2015). Study 1 aimed to identify the features of financial decisionmaking. Participants were asked to list their thoughts, emotions, actions, and motivations when considering whether to look into and adjust financial services (i.e., whether to take action or not). Afterwards, we sorted these answers into categories representing the features of inertia. Study 2 examines the centrality of these features (i.e., how closely each of the features identified in Study 1 is related to inertia), where the most frequently mentioned features were classified as "central" and the less frequently mentioned features as "peripheral." Typically, this classification of features is validated to determine whether central features are indeed processed as such. Such validation is achieved through empirical tests of reaction speed, recall, and recognition (for more information, see Luo et al., 2020). Following this project, central features will be candidate items for a questionnaire that will measure an individual's financial inertia, i.e., an inertia scale.

Study 1

Study 1 employed a bottom-up approach to generate a list of prototypical exemplars of financial inertia. To ensure we obtained all possible features of inertia (which might not be recognized), we cast a broad net and elicited features of financial decision-making. To enable the identification of features relevant to inertia, we inquired whether participants undertook action towards their financial services. Participants were asked in a series of open-ended

questions to list their thoughts, emotions, actions, and motivations when considering whether to look into and adjust financial services. Afterwards, we grouped their responses into categories representing the different features of financial decision-making. A selection of these features was used for subsequent stimulus materials and analysis.

Participants

Participants were recruited from the online subject recruitment platform *Prolific*. Prolific was chosen as a recruitment platform because it boasts good recruitment standards (Palan & Schitter, 2018).

The sample consisted of 300 participants (55% female, 43% male; $M_{\rm age} = 33$), who received £2.19 (~\$2.72) for approximately 21 minutes of their time. Further, 50% of participants were from the U.S., and 50% were from the U.K. Participants were prescreened on English as their first language, and age (18-66).

Procedure and Materials

After providing informed consent, participants were told they would participate in a study researching financial decisions. This study was approved by the Psychology Research Ethics Committee (approval no. 2020-03-02-Putten, dr. M. van-V2-2234,). Further, complete anonymity was guaranteed, the compensation was mentioned, as well as an email address for any remarks or complaints regarding the survey.

Next, participants began completing the survey, which they did on a personal computer in their own environment. The survey posed questions regarding four financial domains: pensions, healthcare plans, utility services, and banking services. Because it was expected that response quality might suffer if the survey was too long, each participant was only questioned

on two of the four domains mentioned above. Semi-random allocation was employed to ensure an equal number of responses for every domain.

In each of the two domains participants were assigned to, information was gathered regarding their thoughts, emotions, actions, and motivations. This was achieved by asking a series of two questions: one inquiring their thoughts regarding looking into that specific domain (e.g., "When you consider whether or not to look into your pension, what do you think about?") and one inquiring their thoughts when they considered whether or not to make adjustments in that domain (e.g., "When you consider whether or not to adjust your pension, what do you think about?"). After participants were inquired about their thoughts, the same questions were asked about their emotions, actions, and motivations. Examples were given for each of these constructs in case participants were unsure of what was meant by them. In all cases, an example was used unrelated to the tested domains to limit confounding of the data through priming or bias. Further, no limit was set on the number of answers to collect the maximum amount of data. At the end of the survey, participants were asked if they had looked into or adjusted their pension, healthcare plans, utilities, and banking services in the past 12 months. At the end of all studies, demographic information (age, sex, country, and income) was collected, and participants were thanked and debriefed.

Results and Discussion

Data collection resulted in a list of 15.668 exemplars (M = 52.23 per participant) of features of financial decision-making. An independent group of bachelor students, who were laypeople in regards to inertia, established a codetree. This meant that there could be no influence of the literature on the codetree, which is desirable given the bottom-up approach. They followed the same procedure used by Hepper et al. (2012), where exemplars were grouped when they were identical, semantically related, related in meaning, and if they shared a common

meaning (in that order). The eight coders each performed this process independently, resulting in eight different lists of categories or codetrees. Subsequently, through careful deliberation with each other, the coders put together a single codetree consisting of 112 different categories.

A fellow masterstudent and I then applied this codetree to all 15.668 exemplars, assigning each exemplar to a single category. Four categories were merged into others during this procedure due to conceptual or semantical similarity (e.g., "General worry" was merged with "General anxiety"). In addition, a new category ("Current/future needs") was added, bringing the total number of categories to 109. In the (rare) cases where exemplars contained multiple meanings, we split them so that each exemplar referred to only one distinct feature of inertia, as in other prototype studies (cf. Luo et al., 2020). Interrater reliability—the degree of agreement among raters—was $\kappa = .95$, which is excellent (Cicchetti & Sparrow, 1981). Because differences between the two coders were minor, the coding by the first rater was used for subsequent analysis.

Study 1 aimed to generate prototypical features of financial inertia by inquiring for features of financial decision-making. Table 1 (see Appendix A) presents the 109 features from the codetree accompanied by exemplars, frequencies, and percentage of participants that mentioned it.

None of the features were mentioned by every participant, and 42 features were mentioned by at least a quarter of the participants. This indicates the difficulty of a classical definition for financial inertia with clearly defined boundaries. Additionally, even only the four most frequently occurring features, all mentioned by more than half of participants, (i.e., "General anxiety," "Costs/prices," "Getting information & help from others," and "Saving money"), are highly divergent from each other. Therefore, the possibility of a single definition with sufficient coverage of all four features seems implausible.

Surprisingly, participants mentioned general anxiety most frequently (1,108 times, by 87.7% of participants), which is inconsistent with any of inertia's conceptualizations in the literature. "General anger/frustration" is another frequently occurring emotion (366 times). In the tested context, such emotions are usually a result of the problematic delay associated with procrastination (Haghbin, 2015; Tibbett & Ferrari, 2015). Whether the prominence of general anxiety in these results is due to the centrality of procrastination in inertia will become more evident in Study 2. However, given that procrastination was mentioned 189 times by 28% of participants, this seems plausible.

"Costs/prices" and "Saving money" formed another large, frequently mentioned cluster together with other monetary features such as "Gaining money," "General money," and "Value for money." Collectively, these financial motivations were mentioned 1,457 times. Perhaps this is unsurprising given the financial context we elicited features in. However, it is also consistent with the established effect of switching costs on inertia (e.g., Han et al., 2014; Lee & Neale, 2012). Features that indicate consideration of switching costs are "Time & effort," "Benefits and rewards," "Anxious/worried about changes," and "Worth it." Together, these features were mentioned 636 times. More specifically, the features "Overwhelmed," "Confusion," and "Uncertainty/indecisive," which were mentioned 511 times, reflect the high switching costs associated with changing financial services that may lead to inertia (Polites & Karahanna, 2012; van Putten et al., 2016).

Although the present results provide a preliminary indication of inertia's structure, it is appropriate to recognize potential limitations of this study. A first limitation concerns the codetree that was used in Study 1. Since the bachelor students who made the codetree were laypeople in regards to inertia, they could not rely on the literature to structure the codetree, somewhat complicating the connection of these results to the literature. Also, because the features between Study 1 and Study 2 are unequal, they cannot be directly compared.

Notwithstanding these limitations, this research serves as the first step towards a prototype analysis of inertia. These results demonstrate that an extraordinary number of features play a role in financial decision-making. Furthermore, they show considerable diversity among these features, even after selecting only those features relevant to inertia. Study 2, by showing whether subjects rate some features more central than others, will provide the preliminary evidence as to whether this means that inertia is prototypically organized.

Study 2

Study 2 aimed to solicit centrality ratings of the features generated in Study 1. These ratings were subsequently used to assess the representativeness of said features, similar to other prototype analyses (e.g., Hepper et al., 2012; Seuntjens et al., 2015).

Participants

The sample consisted of 300 participants (53% female, 45% male; $M_{\rm age} = 35$), who received £2.40 (~\$3.23) for approximately 23 minutes of their time. Further, 50% of participants were from the U.S., and 50% were from the U.K. Participants were prescreened on English as their first language, age (18-65).

Procedure and materials

The codetree from Study 1 consists of 109 features of financial decision-making (and not of inertia). Therefore, prior to the launch of Study 2, the codetree was pruned to fit better with inertia. First, to account for the fact that we obtained much more features than other prototype studies (e.g., 35 features in Hepper et al., 2012; 46 features in Seuntjens et al., 2015), the list of features was reduced. Features were eliminated when they were likely less related to inertia (as determined by a <10% difference in mentioning by active and inactive participants in any of the domains, since larger differences indicate higher relatedness with inertia). Features

that were mentioned by at least a third of participants were kept, as they appeared to be highly relevant to financial decision-making (or the lack thereof). Second—because this reduction resulted in the elimination of about 50 features—several features were added based on high prominence in the inertia literature ("Decision-avoidance," "Intention-behaviour gap," "No trigger," "Apathy," and "Choice deferral"). Also, certain features that were related to inertia, but in the wrong direction, were reversed in polarity (e.g., "Exploring options" was reversed to "Not exploring options" because the former is associated with active behaviour instead of inertial behaviour). This process resulted in a list of 120 features of financial inertia (see Table 2 in Appendix B).

In rating these features, participants first read multiple examples describing behaviour resultant from inertia (Appendix C) since inertia is not a household word. Participants were then shown each of the 120 features in random order, each accompanied by three clarifying exemplars from Study 1 (e.g., the feature "Losing money" was accompanied by the exemplars "Losing money from adjusting," "Earn less money," and "Decrease earnings"). Subsequently, participants indicated how related each feature was to financial inertia on a nine-point Likert scale ($1 = Not \ at \ all \ related$ to $9 = Extremely \ related$). At the end of the survey, demographic information (age, sex, country, and income) was collected, and participants were thanked and debriefed. This study was approved by the Psychology Research Ethics Committee (approval no. 2020-10-29-R.J.B.de Rooij-V1-2723).

Results and Discussion

Mean centrality ratings and standard deviations of inertia's features are listed in Table 2 (see Appendix B). Participants rated some features more central than others ($M_{range} = 3.98$, $M_{min} = 3.87$, $M_{max} = 7.85$). Following other prototype studies (e.g., Hassebrauck, 1997), we computed the intra-class correlation (ICC) to analyse the reliability of ratings given by the

participants. To do so, we transposed the dataset, treating the 120 features as cases and the 300 subjects as variables. Overall, the ICC indicated that the participants agreed highly on the centrality ratings (ICC = .97, p < .001, 95% CI[.962, .977]). Further reliability analyses show that the consistency of the ratings was excellent ($\alpha = .97$), indicating greater within-subject variability than between-subject variability (Knapp, 1991).

Like previous prototype studies, we divided central and peripheral features. Due to the high number of features, we labelled the 30 highest rated features as "central" (see Table 3) and the lowest 90 features as "peripheral" to inertia. Participants were exposed to all the central features and 30 randomly selected peripheral features. As with all prototype studies, it must be noted that the centrality of features follows a continuous instead of a dichotomous scale. This is evidenced by the nihil difference between "No goals and achievements" and "Apathy," which are marked centrally and peripherally, respectively. This division is performed purely to allow for the subsequent testing of differences between more central and more peripheral features.

The purpose of this study was to assess the centrality of the features generated in Study 1. The present results showed that participants rated some features more central to inertia than others. This is consistent with the notion that inertia has a prototype structure. Furthermore, participants could reliably rate the presented features on their centrality to inertia as the agreement between raters was high, thereby fulfilling the first criterion² of a prototypical structure (Rosch, 1975).

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² The second criterion regards the effect of centrality on cognitive processing, which will be investigated in subsequent studies not included in this thesis.

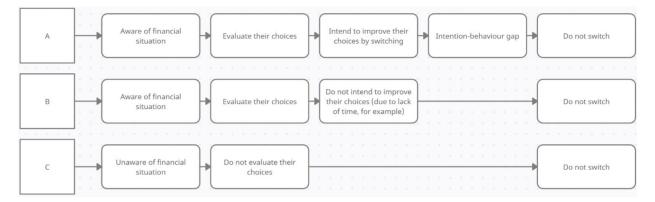
Table 3Central Features of Inertia and Their Centrality Ratings in Study 2

Feature	M	SD
Procrastination	7.85	1.82
Decision avoidance	7.73	1.77
Intention-behavior gap	7.53	1.88
Overwhelmed	7.36	1.84
Inaction/status quo	7.36	1.81
Not concerned with current financial situation	7.25	1.99
Reactive and unproductive	7.18	1.87
Having no time	7.11	1.97
Lazy & tired	7.09	2.15
Not in control and irresponsible	7.08	2.01
Costs/prices	7.07	2.05
Not exploring options	7.05	2.00
No considerations about saving money	7.05	2.17
Disorganized decision-making	7.04	2.02
No consideration future financial needs	7.04	2.00
Not understanding	6.95	2.09
Not doing research	6.95	1.99
Not concerned with value for money	6.95	2.09
No trigger	6.94	2.11
Choice deferral	6.93	2.12
Time & effort	6.92	1.92
Anxious/worried about changes	6.85	2.03
No desire to understand	6.85	2.09
Uninterested & unmotivated	6.83	2.29
No general considerations about the future	6.82	2.10
Not getting it over with	6.79	2.23
Not compare, consider and discuss options	6.77	2.07
Unmotivated	6.76	2.30
Not concerned with financial safety and security	6.74	2.18
No goals and achievements	6.68	2.14

Interestingly, "Procrastination" (M=7.85, SD=1.82) was rated as the most central feature of inertia. This is inconsistent with the differentiation made earlier, where I posited that procrastination and inertia could be separated based on the lack of intent and non-consciousness of inertia. Furthermore, "Decision avoidance" (M=7.73, SD=1.77), the second most centrally rated feature, contradicts the differentiation made based on inertia's lack of intent and passivity. These concepts' high centrality scores suggest that even if intent, consciousness, and passivity differ between these concepts and inertia, this difference is negligible in laypeople's experience. This raises the question of whether laypeople indeed envision inertia as non-conscious, unintentional, and passive. Logically, as indicated in Figure 1, what this boils down to is how participants rated features that imply inert people are (a) aware of the fact that their choices are suboptimal (leading to an intent to change that is consciously decided not to act upon), (b) are aware but do not develop an intent to change, or (c) fail to evaluate their choices in the first place (and thus stick with the status quo by default).

Figure 1

Possible Situations Leading to Inertia in a Financial Context



Note. This figure illustrates three ways non-switching (i.e., inertia) may take place, where inertia is caused by (a) a failure to act upon intent, (b) a lack of intent, or (c) unawareness or ignorance.

The first option, where inertia reflects an active and conscious decision not to act upon an intent, is supported by the three most centrally rated features. This view of inertia more or less equals the definition of "Procrastination" (e.g., Steel, 2007). "Intention-behavior gap" (M = 7.53, SD = 1.88) also supports this view as it posits an intent and quite literally describes the cause of inaction. "Decision avoidance" supports the notion of consciously deciding not to act on a choice (i.e., avoid the decision). However, it diverges by suggesting that this would be done according to one's intention (Anderson, 2007). Other centrally rated features "No trigger" (M = 6.94, SD = 2.11) and "Not getting it over with" (M = 6.79, SD = 2.23), also support the idea of an intent. In contrast, "Choice deferral" (M = 6.93, SD = 2.12) supports the notion of consciously and actively avoiding decision-making (e.g., Dhar & Nowlis, 1999). One interpretation of these findings is that they denote behaviour equal to the behaviour resultant from inertia, leading to high centrality ratings.

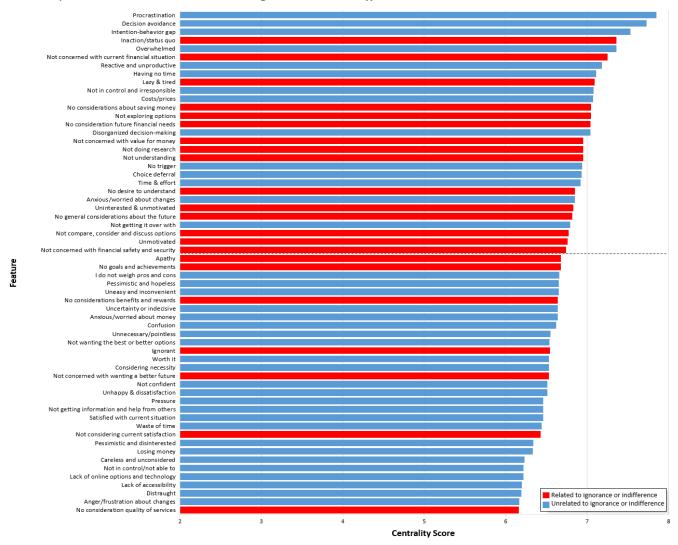
The second option differs from the first in that an intention to switch remains absent. Switching intentions are influenced by the consumer's attitude towards switching (Bansal & Taylor, 1999). Accordingly, this interpretation is best supported by features that strongly imply doubt regarding whether switching would even be worth it, for example, due to concerns about time required to switch or anticipated regret, blocking consideration of switching before an intent is formed. This line of reasoning is reflected by "Uncertainty or indecisive" (M = 6.64, SD = 2.14), "Worth it" (M = 6.53, SD = 2.05), "Waste of time" (M = 6.44, SD = 2.26), "Losing money" (M = 6.33, SD = 2.17) and "Anxious/worried about changes" (M = 6.85, SD = 2.03). Of these features, only the last is rated centrally. So while these features are consistent with the literature, such as the blockades proposed by van Putten et al. (2016) and the justifications for inertial behaviour found in Polites and Karahanna (2012), participants feel they play a peripheral role in inertia rather than a central one. A potential explanation for this result may be that significant inertia can still occur with negligible switching costs (Esteves-Sorenson &

Perretti, 2012). In other words, significant inertia still exists when the features above are taken out of the equation, possibly warranting their peripheral rating.

The third option would suggest that inertia is a non-conscious, passive process. In this case, inertial consumers do not consciously decide to remain inactive and passively stay with the status quo. Instead, they are inert due to ignorance or indifference towards their financial situation, rather than due to a lack of intent or an intention-behaviour gap. The codetree contains plenty features that support this idea; overall, they positively skewed (see Figure 2).

Figure 2

Positively Skewed Features Related to Ignorance or Indifference



Note. This figure demonstrates that features related to ignorance or indifference (in red) scored relatively central.

^a The 60 highest-rated features were selected. ^b The dotted line indicates the central-peripheral split.

Specifically, "Not concerned with current financial situation" (M = 7.25, SD = 1.99), "Not concerned with value for money" (M = 6.95, SD = 2.09), "No desire to understand" (M =6.85, SD = 2.09), "Uninterested & unmotivated" (M = 6.83, SD = 2.29), "Unmotivated" (M = 6.83), "Unmotiva 6.76, SD = 2.30), and "Not concerned with financial safety and security" (M = 6.74, SD = 2.18) are all rated centrally. This finding is consistent with Ranaweera and Neely's (2003) work and suggests that indifference is a central feature of inertia. These results are also consistent with the claim that inertia is "...the repeat purchase of the same brand passively without much thought" (Yanamandram & White, 2004, p. 3; Huang & Yu, 1999). They also support Solomon's (1994) interpretation that inertia reflects low involvement, where behaviour is continued due to a lack of motivation to consider alternatives. "No considerations about saving money" (M = 7.05, SD = 2.17) and "No general considerations about the future" (M = 6.82, SD= 2.10), which reflect ignorance rather than indifference, are also rated centrally. This is important because it is inconsistent with the notion that low involvement induces increased sensitivity to marketing variables because of low commitment to current behaviour (Huang & Yu, 1999; Yanamandram & White, 2004). Instead, it affirms Lee and Neale (2012) and suggests that when ignorance is the cause of inertia, consumers' decision to switch should be largely unaffected by switching costs or marketing variables since they do not consider switching in the first place. The fact that "Overwhelmed" (M = 7.36, SD = 1.84) and "Inaction/status quo" (M = 7.36, SD = 1.81) are also deemed central features appears to support this notion. After all, consumers who are overwhelmed are likely to stay with the status quo as they tend not to consider better alternatives (Ren, 2014).

There are at least two potential limitations concerning the results of this study. The first limitation concerns the stories that participants read to understand what was meant by inertia. Unlike concepts analysed in other prototype studies, inertia is not a concept that most laypeople know. Therefore, it was first necessary to explain what was meant by inertia through six

example stories (Appendix C). These stories may have been susceptible to researcher bias, potentially confounding the results. For instance, it is possible that procrastination was rated highly central because three of the six examples read by participants quite literally describe procrastination (i.e., voluntarily delaying intended action despite expecting adverse effects from the delay). A second limitation is that the subsequent studies that confirm inertia's prototypicality are not included in this thesis. Consequently, one must pay heed to the fact that the interpretation of these results is somewhat tentative and that insights are limited until inertia's prototypicality is confirmed.

General Discussion

The current studies set out to aid the formulation of a comprehensive definition of inertia. Study 1 explored what features laypeople associate with financial decision-making and Study 2 determined these features' centrality for financial inertia. The current thesis aimed to explore what may be learned about inertia through both a top-down and bottom-up approach, a discussion of which will follow next.

Overall, both the analysis of the literature and the results of the current studies provide supporting evidence that inertia is prototypically organised. First, a review of the social sciences literature revealed a significant amount of disorder regarding inertia's definition, leading to confusion, misunderstanding, misinterpretation, and incorrect usage of the term inertia (Dunne, 2007). Second, a comparative concept analysis revealed that while inertia shares great conceptual overlap with similar concepts such as procrastination and decision avoidance, it may be theoretically differentiated by its distinguishing features: passiveness, non-consciousness, and lack of an intent. Third, a dichotomy was proposed between inertia as a tendency or a behaviour. Such a dichotomy reflects different interpretations of inertia in the literature and may help resolve apparent contradictions and serve as further grounds for differentiation. Lastly, inertia's many uses, definitions, and overlap with other constructs proved the

elusiveness of a classical definition of inertia and indicated that inertia might have a prototype structure.

Study 1 of the prototype analysis largely confirmed the findings of the top-down approach: a classical definition for inertia with clearly defined boundaries is unlikely given the vast number and diversity of features identified to be relevant to inertia. Features about negative emotions (i.e., anxiety and anger/frustration) came to mind most frequently when laypeople were inquired about their financial decision-making. The low centrality ratings of these features in Study 2, but high centrality of procrastination, suggest that the frequency of negative emotions in Study 1 may result from the problematic delay associated with inertial behaviour. Further results of Study 1 indicated that money and switching costs are of great importance in financial decision-making.

Study 2 of the prototype analysis provided preliminary evidence of inertia's prototypical structure by showing that participants reliably rated some features more central to inertia than others. Features frequently mentioned in Study 1 did not score high on centrality in Study 2, possibly because financial decision-making features were elicited and not inertia. Surprisingly, concepts differentiated from inertia in the top-down approach (e.g., procrastination, decision-avoidance) scored high on centrality in the bottom-up approach. In assessing what this meant for the validity of inertia's non-consciousness, passivity, and lack of initial, I proposed three divergent streams of interpretation. The first option, inertia as an active and conscious decision not to act on intent, and the third option, inertia as a non-conscious, passive process, found most support through centrally rated features. Interestingly, the two alternatives furthest away from each other find ample support in central features. In my view, the most compelling explanation for this finding is that these alternatives reflect the aforementioned dichotomy. The first option reflects inertial behaviour, as it equals the behaviour associated with procrastination, decision-avoidance, etc. On the other hand, the third option reflects inertial tendencies—a culmination

of personal factors (e.g., indifference) that passively and non-consciously steers towards inertial behaviour. Conjecture aside, these contradictions prove that the previously identified distinguishing features of inertia fail to act as strict boundary conditions, once again supporting the notion of inertia's prototypical structure.

The findings in the current thesis suggest several theoretical and practical implications. First of all, researchers should keep in mind that a tremendous number of features are relevant to inertia. This means a classical definition may not always be feasible. Second, future researchers of this topic ought to ensure that they do not lose sight of inertia as it is experienced in the real world—prioritising rigour over coverage may result in such specific takes on inertia that generalisability of findings suffers. Lastly, future definitions of inertia should incorporate, or at least acknowledge, which type of inertia (tendency or behaviour) they regard to limit disorder in the literature.

Future research would be helpful to extend the current findings by examining the cognitive effects of feature centrality, thereby assessing whether the second criterion of a prototype structure can be met for inertia. Furthermore, future research could consider whether inertia increases sensitivity to marketing variables: does inertia reflect a lack of commitment to current behaviour, or does inertia decrease sensitivity to marketing variables because behaviour is less changeable? Investigating the stability of inertial behaviour could provide answers to this question.

Although the current results must be confirmed by future research, the present study provides clear support for the notion that inertia has a prototypical structure. Not only did distinguishing features established fail to act as boundary conditions, but a great number of features were shown to be relevant, with some features rated more central than others. Thus, the present research contributes on a fundamental level to an area of research with much potential for growth, hopefully stimulating structured investigation of this exciting subject.

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Appendix A

Table 1

Features of Inertia Generated in Study 1 (Ordered by Frequencies)

Feature category	Exemplars Written by Participants	Frequency	% of
Can and a mariates	Warran	1100	participants
General anxiety	Worry, anxiety	1108	87.7
Costs/prices	The cost of the plan	695	75.3
Saving money	Want to save money	421	52.0
Getting information & help from others	Consulting friends	407	52.7
General anger/frustration	Upset, annoyed	366	45.7
Uninterested & unmotivated	Cannot be bothered	303	46.3
Wanting the best/better options	Getting a better deal	294	45.7
Considering current satisfaction	Am I happy with my current company?	251	43.0
Time & effort	Hassle of changing	247	37.7
Curious and interested	Curious to find out more about this topic	244	39.7
General happiness & satisfaction	Sense of happiness	240	37.3
Motivated	Determined to make a change	229	37.7
Considering necessity	Do I really need it	225	39.7
Inaction/status quo	Do nothing	219	37.3
Benefits and rewards	Do I get a present for switching?	213	36.0
Satisfied with current situation	Comfortable with what I have	203	26.7
Quality of customer treatment	They treat me with respect	199	31.3
Environmentally conscious	Green energy	190	21.0
Procrastination	Avoidant	189	28.0
Doing research	Researching my options	188	34.3
Uncertainty/Indecisive	Unsure, hesitant	187	36.3
Not understanding	I don't understand jargon	183	35.3
Ease & convenience	Ease of use	187	36.7
Need for safety & security	Financial security	182	30.7
Careful & considered	Cautious, careful	180	32.3
Compare, consider and discuss options	Looking for alternatives	177	36.0
Optimistic & hopeful	Positive, optimistic	176	31.0
Overwhelmed	Overwhelmed by the amount of options	165	31.0
Analytical/intelligent	Analytical, resourceful	163	27.7
Quality of services	Speed of service	162	34.3
General money	My finances	161	31.3
Confusion	Confused about all the options	159	29.0
Gaining money	I'm going to have more money	161	34.3
Wanting best for loved ones	I want to care for my future self and family	154	27.7

Feature category	Exemplars Written by Participants	Frequency	% of	
			participants	
Level of coverage	Have good doctors	153	23.0	
Gather information online	Visit the bank website	154	27.7	
General health	My health	152	25.3	
Exploring options	I want to look at my options	148	34.3	
Motivated by others	Friends, my mother	143	22.3	
Financial market	Stock market status	138	27.7	
Confident	Confident in making decision	136	29.0	
General future	Thinking about the future	129	29.7	
Desire to understand	Wanting to understand my situation	128	31.0	
General sadness & depression	Pessimistic, depressed	127	24.0	
Not in control/not able to	I cannot adjust	123	14.7	
In control and responsible	I want to control my money	119	24.7	
Distrust in company	I feel I am taken advantaged of	111	21.0	
Wanting good/better future	trying to better my future	110	23.0	
Value for money	Am I paying too much?	109	24.3	
Calm & unconcerned	Not worrying much	110	21.3	
Proactive & productive	Being the most efficient	95	20.7	
Current financial situation	Budget, savings	109	23.3	
Not having a healthcare plan/pension/bank/utilities	I don't have a pension	109	10.0	
Lazy & tired	Drained, exhausted	91	18.3	
Anxious/worried about changes	Anxious about making a change	95	22.0	
Online options and technology	Do they have a mobile app?	89	20.3	
Affordability	Can I afford it	88	19.7	
Unnecessary/pointless	I dont see the need for pension	87	13.3	
Having (not) enough money	Will I have enough money	86	20.3	
Enthusiastic & excited	Energetic	87	20.3	
Planning for future	planning for my old age	83	21.0	
Unhappy & dissatisfaction	Looking at my finances and being unsatisfied	82	20.3	
Worth it	Is it worth it?	81	18.3	
Future financial needs	Making sure I save for the future	75	17.0	
Accessibility	Ease of access	81	17.0	
Time/age for retirement	Getting older	73	16.7	
Change in needs	Change of circumstances	72	13.0	
Weigh pros and cons	I look to the pro's and con's	70	16.0	
Ashamed & insecure	Guilty that I haven't done it sooner	69	16.3	
Trustworthy company	Is the service trustworthy and reliable?	66	15.7	
Anxious/worried about money	Fearful of costs	65	15.7	
Location of services	Close proximity to company	66	14.0	
Reviews	reading online reviews	66	15.3	
Usage of utilities	I think about my usage of electricity	63	10.7	
Looking at the ethics	Does my bank align with my values?	61	11.3	

Feature category	Exemplars Written by Participants	Frequency	% of
			participant
Availability	An ATM that is always available	60	13.3
Reputation of the company	A banking service with a good reputation	58	13.7
Is it the right thing/decision	Whether it is the right thing to do to adjust it	56	14.0
Taking risks into account	The risk of adjustment	53	11.7
Motivated by health concerns	Motivated by direct health concerns	51	12.3
Job situation	Job security	49	10.3
Having no time	I don't have time to think about it	45	11.0
Unhappy with current situation	I'm not happy with my current bank	44	10.0
Relieved	A weight lifted	40	9.3
Investments	Think of investments	39	8.0
Expenses	Think of spending habits	38	9.0
Considering amount to invest	How much money I put in	37	9.7
Anxious/worried about future	Anxious about unsure future	36	9.0
Goals & achievements	Financial goals	35	7.0
Desire for healthy life	I want to feel fit and healthy	34	7.3
Improving life	The thought of a better quality of life	31	8.3
Proud	Wanting to feel proud I've planned for the future	30	8.3
Waste of time	I have better thing to do with my time	29	8.3
Anger/frustration against the general system	Anger at the political climate	27	6.3
Advertisements	Good advertisement	26	7.3
Plans should be for everyone	healthcare should be free	25	3.0
Anger/frustration about money	Anger that is so expensive	23	8.0
Current/future needs	I am motivated by my needs	25	7.7
Getting it over with	In a hurry to do it	25	5.3
Lucky & grateful	Thankful I have it	25	7.3
Pressure	Pressured by parents	21	3.7
No options	There are no options in my area	19	3.3
Engagement and community	What are their community commitments	18	3.7
Anger/frustration about changes	I feel upset that I have to change	15	3.7
Social anxiety	Avoiding phone calls	14	3.7
Anxious/worried about health	Fears about death and disease	13	3.0
Safety & security for future	Being secure for the future.	5	3.0
Noise	I think hot sauce is good on bananas sweet and savory	1793	92,7
Not applicable	None	90	8.0
Total		15856	

Appendix B

Table 2Features of Inertia and Centrality Ratings

Feature	M	SD
Central		
Procrastination	7.85	1.82
Decision avoidance	7.73	1.77
Intention-behavior gap	7.53	1.88
Overwhelmed	7.36	1.84
Inaction/status quo	7.36	1.81
Not concerned with current financial situation	7.25	1.99
Reactive and unproductive	7.18	1.87
Having no time	7.11	1.97
Lazy & tired	7.09	2.15
Not in control and irresponsible	7.08	2.01
Costs/prices	7.07	2.05
Not exploring options	7.05	2.00
No considerations about saving money	7.05	2.17
Disorganized decision-making	7.04	2.02
No consideration future financial needs	7.04	2.00
Not understanding	6.95	2.09
Not doing research	6.95	1.99
Not concerned with value for money	6.95	2.09
No trigger	6.94	2.11
Choice deferral	6.93	2.12
Time & effort	6.92	1.92
Anxious/worried about changes	6.85	2.03
No desire to understand	6.85	2.09
Uninterested & unmotivated	6.83	2.29
No general considerations about the future	6.82	2.10
Not getting it over with	6.79	2.23
Not compare. consider and discuss options	6.77	2.07
Unmotivated	6.76	2.30
Not concerned with financial safety and security	6.74	2.18
No goals and achievements	6.68	2.14
Peripheral		
Apathy	6.68	2.36
I do not weigh pros and cons	6.66	2.11
Uneasy and inconvenient	6.65	2.25
Pessimistic and hopeless	6.65	2.10

eature	M	SD
Anxious/worried about money	6.64	2.24
Uncertainty or indecisive	6.64	2.14
No considerations benefits and rewards	6.64	2.16
Confusion	6.62	2.14
Unnecessary/pointless	6.55	2.31
Ignorant	6.54	2.12
Not wanting the best or better options	6.54	2.10
Not concerned with wanting a better future	6.53	2.11
Considering necessity	6.53	2.10
Worth it	6.53	2.05
Unhappy & dissatisfaction	6.51	2.30
Not confident	6.51	2.25
Satisfied with current situation	6.46	2.16
Not getting information and help from others	6.46	2.05
Pressure	6.46	2.05
Waste of time	6.44	2.26
Not considering current satisfaction	6.43	2.09
Pessimistic and disinterested	6.34	2.34
Losing money	6.33	2.17
Careless and unconsidered	6.23	2.25
Lack of online options and technology	6.22	2.28
Not in control/not able to	6.22	2.46
Lack of accessibility	6.20	2.16
Distraught	6.19	2.30
Anger/frustration about changes	6.17	2.23
No consideration quality of services	6.16	2.21
General considerations about money	6.14	2.26
Current financial situation	6.12	2.52
General anxiety	6.08	2.31
Not curious and uninterested	6.07	2.21
Having (not) enough money	6.06	2.48
Anger/frustration about money	6.05	2.33
Not motivated by others	6.05	2.33
Anxious/worried about future	6.01	2.29
General sadness & depression	6.01	2.42
No change in needs	6.00	2.27
Ease & convenience	5.96	2.43
Considering current satisfaction	5.94	2.30
Calm & unconcerned	5.93	2.29
Is it the right thing/decision	5.92	2.20
Future financial needs	5.87	2.52
Nervous and concerned	5.87	2.29
Unhappy with current situation	5.78	2.52

Seature Seature	M	SD
Change in needs	5.77	2.38
Accessibility	5.74	2.24
Wanting the best better options	5.68	2.97
Getting it over with	5.68	2.55
Taking risks into account	5.67	2.26
Costs/prices	5.66	2.88
Ashamed & insecure	5.65	2.39
Saving money	5.63	2.93
General anger/frustration	5.62	2.34
Goals & achievements	5.61	2.82
Weigh pros and cons	5.60	2.52
Having enough money	5.58	2.70
Benefits and rewards	5.48	2.64
Doing research	5.47	2.89
In control and responsible	5.46	3.07
Unhappiness and dissatisfaction	5.46	2.36
Compare, consider and discuss options	5.44	2.72
General considerations about the future	5.43	2.62
Exploring options	5.43	2.87
Value for money	5.42	2.85
Need for safety and security	5.40	2.74
Gaining money	5.36	2.91
Current company is dishonest	5.34	2.43
Desire to understand	5.32	2.66
Wanting a good or better future	5.30	2.81
Proactive & productive	5.25	3.05
Analytical decision-making	5.23	2.88
Untrustworthiness company	5.22	2.37
Quality of services	5.21	2.42
Online options and technology	5.20	2.47
Getting information and help from others	5.17	2.64
Careful & considered	5.07	2.68
Motivated by others	5.04	2.51
Relieved	4.81	2.59
Optimistic and hopeful	4.75	2.45
Motivated	4.70	2.87
Trustworthiness company	4.70	2.31
Curious and interested	4.65	2.56
Confident	4.63	2.69
Proud	4.62	2.69
Happiness and satisfaction	4.18	2.42
Enthusiastic & excited	3.87	2.47

Note. Centrality ratings were made using a 9-point Likert scale (I = Not at All Related, 9 = Extremely Related). Features are ordered based on these centrality ratings. A split was made with the top 30 as "central" features and the bottom 90 as "peripheral."

Appendix C

Bob has expenses at work that he pays out-of-pocket. Later on, he needs to claim these expenses in order to get his money back. He puts this on his to-do list, but this list always seems to get longer and longer. When he looks at his stack of declarations, he knows that he can reclaim his expenses, but nevertheless he does not get around to doing it.

For some time, Fatima has felt that she does not know the specifics of her future pension situation but she does not take any action to find out what her situation is like because she lacks the motivation to do so. Jane has a monthly subscription to a magazine. Every time she sees the deduction from her bank account, she thinks that she should have cancelled her subscription but that she forgot, again.

Jane has a monthly subscription to a magazine. Every time she sees the deduction from her bank account, she thinks that she should have cancelled her subscription but that she forgot, again.

John's phone subscription is about to end. He intended to look into a cheaper subscription with equal service but delayed action upon it. Now, his phone subscription has been automatically renewed for another month. When the next bill arrives, he, again, intends to look for a cheaper option and keeps postponing the decision. In the end, he again does not act.

Linda does not know whether she could save money on her utility services. Since she chose her current contract in the past, she prefers to maintain her current contract mainly because this requires no action on her part.

Kate is unsure whether her healthcare plan still covers her current or future healthcare needs but has not looked up the coverage of her current healthcare plan and not looked at other healthcare plan options. She feels overwhelmed and rather avoids making any decision in relation to her healthcare plan because she is afraid that she might make the wrong choice.