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DISSERTATION

Titel der Dissertation

„The role of anticipated and experienced emotions in
loan taking“

Verfasserin

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angestrebter akademischer Grad

Doktor der Philosophie (Dr. phil.)

Wien, März 2013

Studienkennzahl lt. Studienblatt:	A 784 298
Dissertationsgebiet lt. Studienblatt:	Psychologie
Betreuerin / Betreuer:	Prof. Dr. Erik Hölzl

Special Thanks

First of all, I would like to give a big “thank you” to my supervisor and co-author Erik Hoelzl, for giving me outstanding support throughout my PhD studies. I really appreciated his valuable feedback and his willingness to help, even in times when he was snowed under with work. I also would like to thank my co-author Maria Pollai for her contribution to two articles, her feedback and for being a great sparring partner during my studies, and my co-author Jan Masak for help in the generation of the second article of my PhD thesis. Special thanks also go to my PhD colleagues and to the employees at the Institute of Applied Psychology: Work, Education and Economy, namely Ingrid Wahl, who I would like to thank for always having a joke on her lips, Claus Dostal, Martina Hartner-Tiefenthaler, Barbara Kastlunger, Erich Kirchler, Christian Korunka, Bettina Kubicek, Stephan Muehlbacher, Silvia Rechberger, Herbert Schwarzenberger, Sara Tement and Heike Ulferts, for their input, feedback and exchange of information.

Particular thanks go to my sister Kristina and to my mother Gaby for their social support and motivation, and to my father Reinhold, who sadly cannot witness the completion of my dissertation any more. I also would like to give a personal “thank you” to all other family members and to my friends. The biggest thanks go to Clemens, who did everything to support me in my PhD thesis and in all other things in my life, and for being the best boyfriend in the world.

Abstract

This dissertation explores the role of anticipated and experienced emotions in loan taking. It consists of three articles that focus on different phases of a loan taking process. The first article investigates the phase before loan acquisition and during repayment using an experimental design. Results show that different payment types are associated with different product-related emotions. Moreover, it is shown that anticipated emotions before loan acquisition and experienced emotions during repayment are not always corresponding. The second and third articles investigate the phase during loan acquisition, specifically the case of loan negotiations between bank advisor and client and consumers' evaluation of different loan products. The second article uses a computer-simulation and shows that risk aversive behavior and willingness to compromise in loan negotiations is influenced by anticipated regret. Studies in the third article are scenarios. Results show that evaluation of loan products with improving sequences of installments is partly associated with anticipated emotions about these products. While the participants of the first and the second article were students, participants of the third article were consumer samples. The three articles contribute to the literature on loan taking and have practical implications for consumer education and marketing of shops and banks.

Diese Dissertation beschäftigt sich mit der Rolle von antizipierten und erlebten Emotionen bei der Kreditaufnahme. Die Dissertation besteht aus drei Artikeln, die jeweils auf unterschiedliche Phasen eines Kreditaufnahmeprozesses fokussieren. Der erste Artikel untersucht die Phase vor der Kreditaufnahme und während der Rückzahlungen mittels eines experimentellen Designs. Die Ergebnisse zeigen, dass verschiedene Zahlungsarten mit unterschiedlichen produktbezogenen Emotionen

einhergehen. Zudem wird gezeigt, dass antizipierte Emotionen vor der Kreditaufnahme und erlebte Emotionen während der Rückzahlungen nicht immer übereinstimmen. Der zweite und der dritte Artikel untersuchen die Phase während der Kreditaufnahme, im Besonderen den Fall einer Verhandlung über Kreditkonditionen zwischen Bankberater und Kunde und die Bewertung von verschiedenen Kreditprodukten. Der zweite Artikel verwendet eine Computersimulation und zeigt, dass risikoaverses Verhalten und Kompromissbereitschaft in Kreditverhandlungen durch antizipiertes Bedauern beeinflusst werden. Die Studien im dritten Artikel sind Szenario-Studien. Die Ergebnisse zeigen, dass die Bewertung von Kreditprodukten mit sich verbesserndem Ratenverlauf teilweise mit antizipierten Emotionen über diese Produkte zusammenhängt. Während die Teilnehmer des ersten und des zweiten Artikels Studierende waren, waren die Teilnehmer des dritten Artikels Konsumenten. Die drei Artikel leisten einen Beitrag zur Literatur zu Kreditaufnahmen und haben praktische Implikationen für die Verbraucherinformation als auch für das Marketing von Geschäften und Banken.

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Introduction

Consumer loan use has continued to increase in recent years (Girouard et al., 2006). Because loan use has severe and long-lasting consequences on consumers' lives (e.g., Brown et al., 2005) and many loan users have limited financial knowledge (e.g., Warwick & Mansfield, 2000), numerous questions emerge regarding how understandings of loan users' behavior can be improved and how consumers can be helped to make decisions that are in their best interest. This involves questions concerning the consequences that the decision to take out a loan has in contrast to those of other financing opportunities, the potential consequences of an insufficient information search, or how to choose from a range of loan offers.

To understand which factors encourage people to take out loans and are relevant for understanding the consequences of a loan decision, Kamleitner and Kirchler (2007) identified three steps of loan taking: processes prior to loan use, processes at loan acquisition, and processes during the repayment period. Certain factors influence the loan process during each of these steps (Kamleitner & Kirchler, 2007; Kamleitner et al., 2012).

One factor that is relevant in all three phases of loan taking is emotion. Emotions are known to influence consumer decisions (e.g., Pollai et al., 2011) and consumer behavior and satisfaction (e.g., Westbrook, 1987). There is evidence that emotions are an important aspect for understanding all three phases of loan taking. In the first phase, the phase prior to credit acquisition, people make the general decision of whether to take out a loan or use other forms of financing to make a purchase, such as saving. According to the model of double-entry mental accounting, consumers exhibit aversion to debt in general (Prelec & Loewenstein, 1998). In this context, the question arises of whether loan taking and saving are associated with different product-related emotions

that correspond to a general aversion to debt. Given the findings that emotions before and after an event are not always identical (e.g., Wilson & Gilbert, 2003), there is also a question of whether the emotions experienced in the first phase, before loan acquisition, always correspond to the emotions experienced in the third phase, repayment.

Consumers frequently not only decide whether to take out a loan or to save but also face a variety of loan options. This decision is depicted in the second phase of the model developed by Kamleitner and Kirchler (2007), the loan acquisition phase. Potential borrowers can discuss different options with their bank advisor or choose from a range of different loan products. As emotions have been shown to influence behavior in negotiations (Larrick & Boles, 1995), the question arises whether and how emotions influence negotiations in loan taking. As emotions have also been shown to influence consumers' product preferences (Shiv & Huber, 2000), this prompts the further question of whether product preferences regarding a specific loan product are associated with corresponding emotions.

To address these questions, four studies were conducted that reflect the role of emotions at different phases of the loan taking process. The results of the studies were summarized in three articles. In the following sections, the relevant literature is reviewed, and the resulting research questions are specified. The design and the results of the studies are summarized, and concluding, all results are discussed jointly.

Theoretical Background

Consumer loans and debt have continued to rise sharply in recent years (Girouard et al., 2006), and a wide range of studies has been conducted to understand consumers' predispositions and outcomes in loan taking. Some dramatic results showed the relevance of the topic, for instance, that young, low-income people (Autio et al., 2009; Lachance et al., 2006) and numerous students are especially indebted (Jones,

2005; O'Loughlin & Szmigin, 2006), and there are several indicators that this trend will continue, such as students' positive attitudes toward debt (Davies & Lea, 1995; Hayhoe et al., 2005), peer pressure (Wang & Xiao, 2009) or the tendency to engage in compulsive buying (Roberts & Jones, 2000). These findings are of crucial importance, as a variety of studies has shown that even small loans can have severe consequences on the life of a debtor (Autio et al., 2009; Brown et al., 2005; Hayhoe et al., 2009). Despite this trend of increasing consumer loans and debt, young people in particular have been shown to frequently have poor financial knowledge (Chen & Volpe, 1998), and many debtors have insufficient knowledge regarding their own credit-card details (Warwick & Mansfield, 2000) or underestimate the duration of a loan (Lewis & van Venrooij, 1995; Overton & MacFadyen, 1998; Ranyard & Craig, 1995), which can contribute to an inaccurate evaluation of the risks of loan taking.

Studies on loan taking have generally focused on isolated instances of loan taking (for reviews, see Kamleitner & Kirchler, 2007; Kamleitner et al., 2012). However, as loan use is normally not a single event but is occasionally a decades-long matter, it is useful to view loan use as an integrated process rather than a series of isolated events. Kamleitner and Kirchler (2007) therefore proposed the consideration of three different steps when analyzing loan taking: processes that occur prior to loan use, processes that occur at loan acquisition and processes that occur during the repayment period.

An aspect that seems crucial for understanding all three steps of a loan taking process and its consequences on consumers is emotion. When considering emotions in detail, a distinction must be made between anticipated and experienced emotions. While anticipated emotions refer to emotions that people expect to experience in response to future events (Loewenstein et al., 2001), experienced emotions refer to the actual emotions experienced during an event (MacInnis et al., 2005). Both anticipated and

experienced emotions have been shown to have a substantial impact on consumer behavior. Anticipated emotions have been shown to influence decisions in various consumer contexts such as consumer and financial decision making (White et al., 2007), purchasing decisions (Wiener et al., 2007), product preferences (Shiv & Huber, 2000), insurance decisions (Hetts et al., 2000), the choice between conventional and unconventional products (Simonson, 1992), maintaining or discontinuing service relationships (Lemon et al., 2002), purchase intentions and the intention to take out a loan (Pollai et al., 2011). In turn, experienced product-related emotions have been shown to affect consumer satisfaction. For instance, product-related emotions have been shown to predict product satisfaction, complaint behavior and word-of-mouth transmission (Westbrook, 1987), and different affective experiences may be related to consumer satisfaction (Mano & Oliver, 1993; Westbrook & Oliver, 1991). Given the significant relevance of emotions in the consumer context generally, there is some evidence that emotions are also important in all three phases of loan taking which will be explained in the following sections.

When considering the first and the third phases of a loan taking process, the phases before loan acquisition and during repayment, an important aspect concerns the general question of whether consumers elect to take out a loan or select another means of payment, such as saving (Kamleitner et al., 2012), and determining the consequences of this decision (Kamleitner & Kirchler, 2007). Standard economic theory assumes that loan taking will generally be favored over saving: discounted utility theory supposes that people prefer to experience a positive event sooner rather than later due to discounted utility over time (Fishburn & Rubinstein, 1982; Samuelson, 1937), which was confirmed by some studies (e.g., Berndsen & Van der Pligt, 2001). As loan taking allows a person to obtain a desired consumer good sooner, discounted utility theory assumes that loan taking will be preferred over saving. However, it has also been shown

that this is not always the case: people might derive additional utility from ‘savoring’ for a desired good, which results in a general preference for saving over loans (Loewenstein, 1987). Moreover, other studies have shown that people may prefer to experience positive events later when they are embedded in a sequence (e.g., Loewenstein & Prelec, 1991; 1993), which supports a preference for saving, that constitutes an improving sequence, over loan taking.

Associated with this general preference for saving over loan taking, there are also some indications that loan taking is associated with more negative anticipated and experienced product-related emotions than saving. Based on the concept of mental accounting (Thaler, 1980, 1985), the model of double-entry mental accounting (Prelec & Loewenstein, 1998) proposes that consumers create two mental accounts, in which products and payments are ‘coupled’ (for a review, see Kamleitner & Hoelzl, 2009): the first concerns the net utility of consumption and is composed of the pleasure of consumption after subtracting painful thoughts regarding the payments to finance the good. The second concerns the net disutility of consumption and is composed of the pain of paying for the good after subtracting the joy derived from consumption. When taking out a loan, consumers’ joy regarding the desired good is damped by thoughts of the ongoing payments. When a good is already being consumed or consumers are habituated to it, negative feelings associated with payments are not ameliorated by the pleasure of consumption. In contrast, when saving, consumers’ pain from the advance payments is attenuated by thoughts of future consumption. The consumption can then be enjoyed without painful thoughts resulting from any outstanding payments. This thesis therefore proposes that a product financed with a loan is associated with lower levels of positive anticipated and experienced emotions than a product financed through saving (research question 1).

According to the explanations above, loan taking is assumed to be associated with lower levels of positive anticipated and experienced emotions than saving. However, anticipated and experienced emotions do not always correspond (for reviews, see MacInnis et al., 2005; Wilson & Gilbert, 2003). Anticipated and experienced emotions thereby do not generally differ in emotional character, as people normally make valid predictions regarding the quality and direction of their emotions regarding future events. However, it has been shown that people often miscalculate the intensity and duration of their emotions, for instance, the amount of happiness after receiving tenure (Gilbert et al., 1998), disappointment after failing a driver's license test (Ayton et al., 2007) or the level of positive emotions during a long vacation (Mitchell et al., 1997). There is some evidence that people also miscalculate their emotions in situations related to loan taking (Kirchler et al., 2008). In addition to several studies showing that people underestimate the durations of their loans (Lewis & van Venrooij, 1995; Overton & MacFadyen, 1998; Ranyard & Craig, 1995), recent studies showed that consumers also underestimate the future emotional burdens of their loans (Hoelzl et al., 2009). Therefore, this thesis proposes that the intensity of anticipated emotions before acquiring a loan does not always correspond to the emotions experienced during the repayment period (research question 2).

There is evidence that emotions are also relevant in the second phase of a loan process, the loan acquisition process. Consumers, especially when taking out a larger loan, frequently have the opportunity to negotiate the loan's conditions with their bank advisor. There is some evidence that anticipated emotions influence behavior in these loan negotiations.

After making a decision, the parties to the negotiation might learn that an alternative offer from another bank or another client would have been better. According to regret theory, this induces regret (Bell, 1982; Loomes & Sugden, 1982), an aversive

feeling that most people actively attempt to avoid (Zeelenberg et al., 1996; Zeelenberg & Pieters, 2007). On occasion, when making a decision people are aware that they will subsequently learn the outcome of an alternative option. In these cases, it could be shown that people anticipate regret, in contrast to people who were told not to learn about any alternative outcomes after making a decision (Josephs et al., 1992; Larrick, 1993; Ritov & Baron, 1995; Zeelenberg & Pieters, 2004). Accordingly, it could be shown that the availability of feedback about alternatives in negotiations influences anticipated regret and consequently the behavior of parties to the negotiation. Specifically, it was shown that people who was told to receive feedback only after an impasse, behaved more cooperatively than people who was told to receive feedback regardless of outcome. With this behaviour, they had a higher chance that the negotiation was successful, and they could avoid the regret-eliciting feedback (Larrick & Boles, 1995). Therefore, in this thesis it is proposed that anticipated regret influences cooperative behavior in loan negotiations (research question 3).

When considering the second phase, it is also important to investigate emotions related to the loan itself, as loan takers normally have to choose from a wide range of loan products. As described above, the preference for saving over loan taking and the product-related emotions associated with that preference can partly be explained by a general preference for improvement (Loewenstein & Prelec, 1991; 1993). This preference for improvement is demonstrated in a variety of studies, in such different contexts as noise (Ariely & Zauberman, 2000) or pain patterns (Ariely, 1998; Kahneman et al., 1993), incomes (Loewenstein & Sicherman, 1991), or financial outcomes (Langer et al., 2005; Matsumoto et al., 2000; Schmitt & Kemper, 1996). Recent studies showed that there is also a preference for improvement in loan repayments (Hassenzahl, 2005; Hoelzl et al., 2011). Specifically, loan products with falling or constant installment plans were demonstrated to be preferred over loan

products with increasing installment plans, even when financial losses were the result (Hoelzl et al., 2011).

The preference for improving sequences in the financial context might be due to cognitive considerations and arguments in favor of a specific sequence (Read & Powell, 2002). However, preferences for products have also generally been shown to be influenced by anticipated emotions (Shiv & Huber, 2000). Therefore, in this thesis, it is proposed that loan products with rising installment plans are associated with more negative and a lower level of positive anticipated emotions than loan products with falling installment plans (research question 4).

Overview of Studies

The core of this thesis consists of three articles that reflect different aspects of the loan taking process. The first article covers the first and the third phases of the loan taking process and addresses the most general question of different product-related emotions when taking out a loan and saving. It is proposed that a product financed with a loan is associated with lower levels of positive anticipated and experienced emotions than a product financed through saving (research question 1). Moreover, the first article also examines consumers' general tendency to mispredict their emotions in a loan context. It is proposed that the intensity of anticipated emotions does not always correspond to that of the emotions experienced during a loan taking process (research question 2).

The other two articles focus on anticipated emotions regarding the second phase of the loan taking process. The second article examines the role of anticipated regret in negotiations between bank advisors and clients concerning loan interest rates, and it is proposed that anticipated regret influences various behavioral indicators depicting cooperativeness in loan negotiations (research question 3). The third article investigates

whether the evaluation of loan products with different installment plans is associated with anticipated emotions and corresponding arguments. It is proposed that loan products with rising installment plans are associated with more negative anticipated emotions and a lower level of positive anticipated emotions than loan products with falling installment plans (research question 4).

A variety of methods were employed in the three articles to view the addressed questions from different angles: The results in the first article were obtained through a longitudinal experiment. In the second article, a computer-simulated negotiation was used, and scenarios were used in the third article. The participants in the first two studies were students. As recent studies showed that students who volunteer for psychological experiments often differ from the general population with respect to certain personality variables (Van Lange et al., 2011), which might reduce ecological validity, the participants in the third article came from two consumer samples. Moreover, the studies used consumer products with different values: a gift basket, a student loan, an apartment, and a car. The three articles are described in greater detail below, and the results of all three articles are discussed jointly.

Article 1: The effect of payment type on product-related emotions: Evidence from an experimental study¹

The primary goal of the first article was to examine whether product-related emotions depend on payment type (i.e., repayment and prepayment). Moreover, it explored whether anticipated product-related emotions differ from those that are actually experienced.

¹ Hahn, L., Hoelzl, E. & Pollai, M. (2013). The effect of payment type on product-related emotions: Evidence from an experimental study. *International Journal of Consumer Studies*, 37(1), 21-28.

A longitudinal experiment was conducted with two measurement points. Participants received a gift basket and paid for it with part of a received budget. Participants were randomly assigned to one of two conditions: ‘repayment’, in which they received the gift basket at the beginning of the study and paid for it afterward, or ‘prepayment’, in which they paid for the gift basket first and received it at the end of the study. At the beginning of the study, the participants predicted their product-related emotions regarding the gift basket and emotions regarding the payments, which were then compared to the emotions that they actually experienced at two points in time.

The results demonstrated that when they received the basket, participants who prepaid for the gift basket experienced higher positive emotions related to the gift basket than those who repaid for it. In the ‘prepayment’ condition, there was also an increase in experienced positive emotions over time. These results corresponded to the finding that payments in the ‘prepayment’ condition were also associated with more positive experienced emotions than in the ‘repayment’ condition, which supported the idea of coupling between products and payments. Finally, most of the participants correctly predicted their emotions regarding the gift basket, but there was a slight overestimation of positive emotions in the ‘repayment’ condition at the first time point.

Overall, the first article shows that payment type influences product-related emotions. Prepaying for a product leads to more positive product-related experienced emotions than repaying. As a possible explanation for this difference, the article provides further evidence for the idea of coupling between product and payments. The article also shows that some consumers slightly mispredict their product-related emotions.

Article 2: The effect of feedback on process and outcome of loan negotiations: Consequences on risk aversion and the willingness to compromise²

The goal of the second article was to explore the influence that feedback about alternatives has on risk aversion and the willingness to compromise in loan negotiations. With this, it examined how anticipated regret influences the behavior of negotiators.

A computer-simulated student loan negotiation was conducted. Participants were assigned the role of either a bank advisor or a bank client and negotiated the interest rate on a student loan for an MBA. The goal was to negotiate the most favorable outcome for oneself. Participants were randomly assigned to one of two conditions: they were told that after the negotiation, they would receive feedback regarding their ‘best alternative to negotiated agreement’ (BATNA; Fisher & Ury, 1981) either only if the negotiation was unsuccessful or regardless of the outcome. In the case of the bank advisors, the BATNA was a loan offer with a fixed interest rate that a colleague made to another client, who would receive the loan if the negotiation were unsuccessful. In case of the bank clients, the BATNA was a loan from another bank, again with a predetermined interest rate. Before the negotiation, participants were asked to set a ‘reservation price’ (Raiffa, 1982), i.e., the lowest [highest] interest rate that they would accept, and to estimate the BATNA, i.e., the interest rate of the alternative. During the negotiation, participants made their offers over a maximum of five rounds and received standardized answers from a computer program playing the role of either a bank advisor or a client.

The results showed that participants have greater risk aversion and a higher willingness to compromise when they only expected feedback if the negotiation was unsuccessful than when they expected feedback regardless of the outcome. In so doing,

² Hoelzl, E., Hahn, L., Pollai, M. & Masak, J. (in press). The effect of feedback on process and outcome of loan negotiations: Consequences on risk aversion and the willingness to compromise. *Group Decision & Negotiation*, doi 10.1007/s10726-012-9282-x

they anticipated and avoided the unpleasant feeling of regret. Participants then set a lower negotiation goal in the form of a less ambitious reservation price and a less ambitious estimated BATNA. They also began with less favorable offers for themselves and were quicker to make concessions during the course of the negotiation. Finally, they concluded the negotiation with less ambitious final offers, which more frequently violated their reservation price and their estimated BATNA. By doing this, they had a higher potential for agreement, which prevented them from obtaining information about the alternative offer, which might cause regret.

Overall, the second article shows that anticipated regret influences behavior in loan negotiations. It demonstrated that negotiators attempt to avoid feedback that might elicit regret and consequently behave in a more risk averse manner with a higher willingness to compromise.

Article 3: Is evaluation of loan products with different sequences of installments associated with anticipated emotions and corresponding arguments?³

The goal of the third article was to examine how consumers evaluate loan products with different installment sequences. It explored whether the evaluation is associated with anticipated future emotions related to the loan plans and arguments in favor of a loan plan.

The third article consists of two scenario studies. In both studies, samples of consumers were assigned the role of a bank client who is about to take out a loan. Participants received an offer for a loan product from their bank advisor that had either falling, constant or rising sequences of installments. Participants were randomly

³ Hahn, L. & Hoelzl, E. (under review). Is evaluation of loan products with different sequences of installments associated with anticipated emotions and corresponding arguments? *Journal of Consumer Affairs*

assigned to one of the three loan plans. In both studies, participants evaluated the loan installment plans and anticipated their future emotions related to the loans.

In Study 1, participants were about to buy an apartment and received an offer from their bank advisor for a loan of over 30,000 Euros with a repayment period of ten years. The results showed that participants' evaluation was better for the loan products with falling and constant installments than for the loan product with rising installments. Their anticipated emotions partly corresponded to this finding: in one year, participants anticipated that they would have more positive emotions regarding the loan with the falling installments than that with rising installments. Their anticipated positive and negative emotions in other years generally moved in the same direction, although these results were not statistically significant. Moreover, the results concerning the participants' anticipated negative emotions in one year were unexpected.

The aim of Study 2 was to reinforce and extend the results of Study 1 regarding the evaluation of loan products and anticipated emotions. To generalize the findings from Study 1, the scenario was slightly altered: The participants were about to buy a different consumer good, a car, and received a loan offer of 10,000 Euros with a repayment period of five years. Moreover, to explore additional factors associated with the evaluation, a list of arguments in favor of a loan plan was also provided to the participants. The participants indicated the extent to which they agreed with the arguments.

The results of Study 2 bolster the findings from Study 1 regarding the evaluation of loan products: the loan products with falling and constant installments received better evaluations than the loan product with rising installments. Unexpectedly and contrary to the findings in Study 1, there were no differences in the anticipated emotions regarding the loan products. However, there were several arguments associated with the better evaluations of the loan products with falling and constant installments: The loan product

with falling installments was evaluated as being appropriate for the decreasing value of the car, and the participants expected that they would more easily adapt to both the falling and constant installment loan products that they also liked more. The constant loan product was also evaluated as clearer and having fewer major changes. There was a tendency to evaluate the loan product with falling installments as fitting better to the habituation to the car and providing a higher level of financial security.

Overall, the third article shows that consumers evaluate loan products with an improving sequence better as loan products with a deteriorating sequence. As an extension of previous findings, it showed that better evaluations are partly associated with anticipated emotions and corresponding arguments.

General Discussion

The thesis contributes to the literature on the loan taking process by exploring the role of consumers' anticipated and experienced emotions throughout the process. As proposed by Kamleitner and Kirchler (2007), loan taking can be divided into three phases: The first phase refers to the processes prior to acquiring a loan and involves questions concerning which type of payment to choose. The second phase refers to the loan acquisition process and involves questions concerning the negotiation of the terms of a loan with a bank advisor and which of a variety of products to choose. The third phase refers to the repayment period and involves questions regarding the consequences of taking out a loan. The three articles focus on the role of anticipated and experienced emotions in these three phases of the loan taking process.

The first article investigated the first and the third phases of the loan taking process. It examined whether different payment types, i.e., loan taking and saving, are associated with different anticipated and experienced product-related emotions. The results demonstrated that loan taking is associated with a lower level of positive

product-related experienced emotions than saving. This finding is in line with the assumptions of the double-entry mental accounting model (Prelec & Loewenstein, 1998), which assumes a general aversion to loan taking due to the coupling of products and payments. Evidence of coupling was also observed: corresponding to the experienced emotions about the product, payments were also associated with the lower level of positive experienced emotions in loan taking than in saving. The study also showed that experienced product-related emotions do not always correspond to anticipated product-related emotions, which is in keeping with the findings of studies on affective forecasting in other consumer contexts (e.g., MacInnis et al., 2005; Wilson & Gilbert, 2003).

The results of the first article contribute to the literature on the double-entry mental accounting model (Prelec & Loewenstein, 1998). Numerous existing studies investigating *anticipated* emotions with the model used scenario techniques (e.g., Patrick & Park, 2006; Rajagopal & Rha, 2009; Raghurir & Srivastava, 2008). Moreover, “affective consequences are rarely measured” when examining the model (Kamleitner & Hoelzl, 2009, p. 443), and if they are measured, most studies investigating *experienced* emotions used real consumer cases (e.g., Inman et al., 2009; Soman, 2003; Yamamoto et al., 2008). Therefore, the results confirm the model’s general assumptions through an experimental design that allowed anticipated and experienced emotions to be directly measured in a controlled context. Moreover, the study highlights the importance of distinguishing between anticipated and experienced emotions when examining the model, as these are not always identical. As the differences between anticipated and experienced emotions in the loan context only recently became a topic of interest (Hoelzl et al., 2009; Kirchler et al., 2008), the results contribute to this first empirical evidence that borrowers are not always correct in their predictions.

While the first article focused on processes prior to loan acquisition and during the repayment period, the second and the third articles focused on processes in the second phase of the loan taking process, loan acquisition. The second article explored the role of anticipated regret in negotiations on interest rates between bank advisors and clients. The results showed that anticipated regret affects behavior in loan negotiations. Negotiators who were informed that they would receive feedback about an alternative offer when the negotiation was unsuccessful behaved in a manner that prevented them from receiving feedback that might elicit regret. They behaved in a more risk averse manner and were more willing to compromise and therefore more likely to reach an agreement. These results are in line with research showing that feedback about alternatives might influence the level of anticipated regret (Josephs et al., 1992; Larrick, 1993; Ritov & Baron, 1995; Zeelenberg & Pieters, 2004) and people often attempt to avoid this negative feeling (Zeelenberg et al., 1996; Zeelenberg & Pieters, 2007), also in negotiations (Larrick & Boles, 1995).

The results of the second article contribute to the literature on anticipated regret in decision making, especially in negotiations. This study demonstrated that prior results showing the effect of feedback on risk aversion (Larrick & Boles, 1995) can be transferred to the context of a loan negotiation. In the loan context, the effect of feedback on risk aversion and willingness to compromise emerged in a broader and more integrated manner than in the findings of Larrick and Boles (1995) in the context of a job application. Especially the higher willingness to compromise of negotiators who expected feedback in case the negotiation was unsuccessful throughout the whole loan negotiation highlights the importance of considering both the process and the outcome of a negotiation, as proposed by several authors (Druckman, 1994; Thompson et al., 2010).

The third article explored the relationship between anticipated emotions and arguments in the evaluation of different loan products. Specifically, it showed that loan products with an improving sequence received better evaluations than loan products with a deteriorating sequence. This result corresponds to findings from studies on the preference for improving sequences that showed that, contrary to the expectations of standard economic theory, people prefer sequences with better endings (Ariely, 1998; Ariely & Zauberman, 2000; Kahneman et al, 1993; Loewenstein & Prelec, 1991; 1993), which was also found in the context of financial decision making (Hassenzahl, 2005; Hoelzl et al., 2011; Langer et al., 2005; Loewenstein & Sicherman, 1991; Matsumoto et al., 2000; Schmitt & Kemper, 1996). The results further demonstrated that better evaluations of loan products with improving sequences are partly associated with anticipated emotions, which is in line with previous findings showing that anticipated emotions influence various aspects of consumer decisions, such as product preferences (Shiv & Huber, 2000) or purchase intentions (Pollai et al., 2011). Finally, the article also demonstrated that evaluations of loan products also correspond to different arguments in favor of a loan plan, which is consistent with previous findings that arguments are associated with a preference for improvement (Read & Powell, 2002).

The results of the third article contribute to the literature on the general preference for improvement (Loewenstein & Prelec, 1991; 1993) and corroborate findings that a preference for improvement can also be observed in the context of loan product evaluation (Hoelzl et al., 2011). Moreover, the results indicate that the evaluation of loan products also involve emotional and cognitive factors. This result extends findings that product-related emotions are associated with product preferences (Shiv & Huber, 2000) to the loan context.

Overall, the three articles show that considering anticipated and experienced emotions contributes to improved understandings of all three phases of the loan taking

process. The results extend previous findings from research on double-entry mental accounting, affective forecasting, regret theory and the preference for improvement by adding factors, transferring results to the loan context or corroborating findings by using a different methodology.

Considering the research on the loan taking process as a whole, the topic of emotions is rather underrepresented in all three phases of the loan taking process. Research on the first phase generally emphasizes the motives and external factors that influence loan availability (Kamleitner & Kirchler, 2007), while settings where consumers also have to choose between different payment types have received little attention (Kamleitner et al., 2012). This thesis contributes to filling this gap by examining the role of anticipated emotions regarding different payment types. Some studies on the second phase of the loan taking process focus on the information search behavior of potential borrowers (Kamleitner & Kirchler, 2007). However, little is known about how the level of information influences behavior in loan negotiations. By showing that the availability of information regarding alternative offers influences anticipated regret and consequently risk aversion and the willingness to compromise in loan negotiations, this thesis reveals the consequences of an insufficient information search. Moreover, despite research on search behaviour in the second phase, little is known about consumers' choice between different products (Kamleitner & Kirchler, 2007). Results of the studies of the third article show that consumers evaluate loan products with an improving sequence of installments better than loan products with a deteriorating sequence and in part associate these products with more positive emotions. The results of this thesis therefore contribute to the question how loan takers choose between different loan products. Research on the third phase of the loan taking process includes studies on the emotional consequences of loan taking (e.g., Autio et al., 2009; Brown et al., 2005; Hayhoe et al., 2009). This thesis adds the sub-dimension of product-

related emotions to the literature on the emotional consequences of loan taking by showing that loan taking and saving generate different product-related emotional patterns. Overall, this thesis contributes evidence on the role of emotions throughout the loan taking process to the literature about loans.

Some findings of the studies presented in this thesis could be strengthened and expanded in future research. The studies in this thesis focused on processes prior to loan acquisition, loan acquisition processes and repayment processes. However, repayment processes were only examined for a short period of time. To explore the loan taking process in a more comprehensive manner, studies on long-term consequences, i.e., consequences over years and decades, should also be conducted to investigate whether and how emotions change throughout the loan period. As loans typically have long repayment periods, individuals will likely become habituated to the loan-financed product, which might decrease the joy about the product and in turn increase the pain of making payments. This seems to be an important additional aspect of examining the role of emotions throughout the loan taking process.

Another point that should be addressed in future studies is ecological validity. The samples of the studies were student and consumer samples. Nevertheless, all of the studies were either laboratory or simulation studies, which might reduce ecological validity and the generalizability of the findings. In future studies, it would be interesting to explore the role of anticipated and experienced emotions in a real-world loan taking process. By collaborating with shops, it would be possible to investigate how different payment types influence product-related emotions, and consequently, customer satisfaction. By collaborating with banks, it would be possible to explore how anticipated emotions influence actual negotiation behavior and how they are associated with evaluations of existing loan products and the effect they have on customer satisfaction.

The studies presented in this thesis have several practical implications for the marketing decisions of shops and banks and for consumer education. First, shops offering consumer loans should be aware that a given product might produce different product-related emotions according to the chosen payment type. Product-related emotions have been shown to be related to customer satisfaction (Mano & Oliver, 1993; Westbrook, 1987; Westbrook & Oliver, 1991). Therefore, shops might profit from developing specialized marketing strategies for consumers purchasing a product using consumer loans. Examples of such strategies could include a special customer service or small gifts during the repayment period that might increase customer satisfaction even though this payment type is generally associated with more negative experiences.

Second, banks could use the findings to increase their awareness of the role anticipated emotions might play in important decisions by banks and customers. Banks could use the knowledge of this consumer preference to improve the design of loan products to conform to this preference. They could also use this knowledge in product presentations, marketing campaigns, and advisory discussions to obtain higher closure rates. As the evaluation of loan products has been shown to be partly associated with anticipated emotions, such strategies are likely to have positive effects on customer satisfaction. Regarding loan negotiations, bank advisors should actively search for information on alternatives before they begin a loan negotiation. In so doing, they will reduce the likelihood of being overly risk averse and, consequently, avoid unsatisfactory outcomes.

Third, consumers might also benefit from the findings described above. Consumer education programs might be designed to improve consumer understandings and awareness of the emotional consequences of a payment type decision, the importance of an extensive search for alternatives before closing a deal with a bank, and the emotional aspects regarding different loan products that might prevent them from

intuitively selecting a “wrong” (e.g., more expensive) loan product. This is especially important, as most people have been shown to perform particularly insufficient information searches (e.g., Peterson & Black, 1984).

Given substantial increase in consumer loans (Girouard et al., 2006) on the one hand and the far-reaching consequences of loans (Autio et al., 2009; Brown et al., 2005; Hayhoe et al., 2009) and the frequently inaccurate estimations of loans on the other (Lewis & VanVenrooij, 1995; Overton & MacFadyen, 1998; Ranyard & Craig, 1995; Warwick & Mansfield, 2000), these recommendations might allow consumers, shops, and banks to make correct decisions in the long run.

In conclusion, this thesis contributes to the understanding of anticipated and experienced emotions in the loan taking process. Theoretically, this thesis corroborates and extends findings from studies on double-entry mental accounting, affective forecasting, regret theory and the preference for improvement or transfers them to the loan context. By employing an integrated approach across all three phases of the loan process, this thesis contributes to filling gaps in the loan taking literature. In practical terms, the results can help shops and banks to design special marketing strategies or products to enhance consumer satisfaction, and consumers can benefit by having a greater awareness of the underlying psychological processes during loan taking that can lead them to make decisions that are not in their best interest.

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Organizational Behavior and Human Decision Processes, 65(2), 148-158.

Article 1

Hahn, L., Hoelzl, E. & Pollai, M. (2013). The effect of payment type on product-related emotions: Evidence from an experimental study. *International Journal of Consumer Studies*, 37(1), 21-28.

The effect of payment type on product-related emotions: evidence from an experimental study

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Keywords

Affective forecasting, credit use, double-entry mental accounting, mental coupling, saving.

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JEL classification: D9, D91

doi: 10.1111/j.1470-6431.2011.01072.x

Abstract

Consumption and payments have been shown to be closely associated in consumers' minds. Based on the idea of 'coupling', it is hypothesized that product-related emotions will differ depending on payment type (i.e. repayment and prepayment). Moreover, it has been suggested that forecasted emotions do not always correspond to experienced emotions. This is tested in a longitudinal experiment, which simulated a saving and credit situation, and assessed forecasted and experienced product-related emotions. As hypothesized, prepayment led to more positive product-related emotions than repayment. Moreover, participants showed some inconsistencies between forecasted and experienced emotions. Implications for marketing and consumer education are discussed.

Introduction

When consumers want to buy a product and cannot afford the purchase, they have two options: take out a loan or start saving. Taking out a loan allows consumers immediate access to the desired product, but it also brings debt (i.e. the obligation to pay) – sometimes even after the product is no longer usable. Saving implies that consumers have to wait for the desired product until they have saved the necessary funds, but it also means that the payment precedes consumption and no debt occurs. The model of double-entry mental accounting (Prelec and Loewenstein, 1998) implies that saving should be preferred over credit. In other words, prepaying and receiving the product later should be preferred over receiving the product first and repaying for it later. This model also implies that, depending on payment type, the product will be perceived and evaluated differently.

One particular aspect of product evaluation is emotion. Emotion and affect have been found to be relevant for product evaluation beyond factual considerations and utility (Hirschman and Holbrook, 1982; Havlena and Holbrook, 1986). Forecasted emotions are relevant for consumer decisions (Simonson, 1992; Zeelenberg *et al.*, 1996), and emotional experience is an important aspect of product satisfaction (Westbrook, 1987; Westbrook and Oliver, 1991; Mano and Oliver, 1993). However, research on affective forecasting has shown that forecasted emotions often diverge from the emotions that are actually experienced (for a review, see

Wilson and Gilbert, 2003). When examining the effects of payment type on product-related emotions, it is therefore important to consider these differences and to distinguish between anticipated emotions and experienced emotions. Longitudinal data allow studying consumers' experienced emotions and their satisfaction with the product over the whole consumption period.

When an identical product is evaluated differently depending on prepayment or repayment, this has relevance for marketing and for consumers. Marketing strategies may be designed to buffer the negative effects of payment type on product satisfaction throughout the whole consumption period. In order to avoid a gradual decline in consumer satisfaction after the purchase, these strategies would be of special interest if consumers incorrectly predict the effects of payment type when deciding to purchase a product. Consumers should be particularly aware of the impact different payment types may have on the ensuing evaluation of products. By anticipating that some payment type might be followed by a worse evaluation of the product in the long run than another payment type, consumers will have the possibility to choose their payment type more consciously in regard to future happiness with the product. By doing that, they might avoid unexpected dissatisfaction with the product in the long run. In this paper, we examine differences in product-related emotions when a product is financed by prepayment (saving) or repayment (credit). We compare forecasted and experienced emotions in a longitudinal experimental design.

Evaluation of a consumer good using prepayment or repayment

Consumer credit and debt increased tremendously over the last few decades (Girouard *et al.*, 2006), especially for young and low-income people (Lachance *et al.*, 2006; Autio *et al.*, 2009). This tendency seems to suggest that many consumers prefer credit over saving. One possible reason for this could be impatience: credit allows for immediate consumption, and studies on intertemporal choice usually find that people prefer a positive outcome sooner rather than later (e.g. Berndsen and Van der Pligt, 2001). However, there are exceptions to this general rule, as sometimes people prefer to postpone a positive outcome. For example, in the case of 'savoring' (Loewenstein, 1987) consumers derive additional utility from the anticipation of desired future consumption. Additionally, people are more willing to postpone positive outcomes when the choice is embedded in a sequence (Loewenstein and Prelec, 1991, 1993). For example, when asking students whether they would prefer a free dinner in a fancy French restaurant in 1 month or in 2 months, the majority prefer the earlier dinner over the later dinner. However, when the dinner was set into a sequence with a dinner in a less fancy Greek restaurant (i.e. French dinner in 1 month and Greek dinner in 2 months and vice versa), the majority preferred delaying the dinner and waiting to eat in the French restaurant. Several studies have found such a preference for improving sequences (Hsee and Abelson, 1991; Loewenstein and Sicherman, 1991; Kahneman *et al.*, 1993; Lea and Webley, 2005). Assuming that payment is perceived as negative, and a desired product or service is perceived as positive, saving would constitute an improving sequence with a 'happy ending', whereas credit would constitute the opposite. While these considerations mainly focus on the preference for different ways of financing a purchase, there are also reasons to assume that different payment types influence the evaluation of the product itself.

Purchases involve costs and benefits, and in many cases costs and benefits are associated in the consumers' mind. These associations have consequences for financial behaviour and for product evaluation (see Kamleitner and Hoelzl, 2009 for a review). In particular, the model of double-entry mental accounting (Prelec and Loewenstein, 1998) provides a framework to examine the effects of payment type on product evaluation. According to this model, prepayment should be preferred over repayment when the purchased good and the payments to finance the purchase are mentally coupled, i.e. when thoughts about the product induce thoughts about the payment and vice versa. As a result, it is assumed that the joy about the product is attenuated by painful thoughts of the payments, and that the pain of paying is buffered by agreeable thoughts about the good (Prelec and Loewenstein, 1998). Coupling will be particularly strong if there is a clear association between payments and consumption and a short time interval between them (Gourville and Soman, 1998; Thaler, 1999; Soman, 2001). Following the ideas of mental accounting (Thaler, 1980, 1985), the model of double-entry mental accounting postulates that consumers create two different mental accounts when paying for a good: one that records the net utility of consumption after subtracting the pain of paying, and one that records the net disutility of paying after subtracting the pleasure of consumption. In line with this argument, a general debt aversion is postulated

because joy of consumption will be impaired by thoughts of the outstanding payments. In contrast, when individuals save, payments are ameliorated by thoughts of future consumption, and the product can then be enjoyed as if it were free (Prelec and Loewenstein, 1998).

Several studies supported the occurrence of mental coupling between product and payments, in particular for the direction from benefits to costs (Hoelzl *et al.*, 2009; Kamleitner *et al.*, 2009). A number of other studies confirmed that different degrees of coupling, and therefore varying levels in pain of paying, lead to differences in consumer behaviour, such as consumer in-store decision making (Inman *et al.*, 2009), spending (Raghubir and Srivastava, 2008), consumer loan choice (Wonder *et al.*, 2008), electricity consumption (Yamamoto *et al.*, 2008) and consumption of leisure activities (Soman and Gourville, 2001). There was also a direct effect of experienced pain of paying on purchase decisions (Soman, 2003; Knutson *et al.*, 2007; Rick *et al.*, 2008), and consumers try to minimize the pain of paying with strategies such as flat-rate purchasing (Lambrecht and Skiera, 2006; Shy, 2008). Moreover, it was found that the preference for prepayment was especially pronounced for hedonic and non-durable products (Patrick and Park, 2006).

Some studies concentrated on the effect of coupling on the evaluation of a transaction. In one study, coupling of payment and consumption of a product was varied, which changed the evaluation of the purchase. When the product was purchased earlier and consumed as planned, the product was perceived as 'free'. The costs were perceived as an 'investment' for advance purchasing, or as a 'cost of replacing the good' when the product could not be used as planned (Shafir and Thaler, 2006). In another study, it was found that the evaluation of past expenses depended on the immediacy of payments, for example, when payment happened immediately via cash or delayed via credit cards (Soman, 2001). In a different study, the time interval between consumption (getting money) and payment (doing a job for that money) was varied (Siemens, 2007). Satisfaction with the transaction decreased when there was a time interval between purchase and payment, i.e. when the pain of paying was not buffered by thoughts of the benefits. Based on these results, it is likely that the pain of paying also has an effect on product-related emotions.

In these studies, participants were asked to either report their experienced emotions or to forecast their emotions mostly through the use of scenario techniques (Rajagopal and Rha, 2009). However, a variety of studies in the last few years have shown that anticipated emotions may diverge from actually experienced emotions. Therefore, exclusively focusing on either anticipated or experienced emotions seems problematic.

Affective misforecasting in credit and saving situations

Numerous studies have shown that people do not always forecast their emotions correctly. Specifically, people usually correctly estimate the quality and direction of future emotions but make mistakes in estimating the intensity and duration of their emotions (for reviews, see Wilson and Gilbert, 2003; MacInnis *et al.*, 2005). Examples of affective forecasting errors are numerous for both positive and negative emotions: people overestimate how

unhappy they would be after ending a relationship, professors mispredict how happy they would be after receiving tenure (Gilbert *et al.*, 1998), and students overestimate their disappointment after failing a driver's license test (Ayton *et al.*, 2007) as well as their positive emotions when going on a trip to Europe (Mitchell *et al.*, 1997).

In the context of credit and saving, the misprediction of emotions has not been investigated in detail yet (Kirchler *et al.*, 2008). Nevertheless, there are some indicators that affective forecasting errors also occur in credit and saving situations. The duration of fixed and flexible loans was systematically underestimated in a variety of studies (Lewis and van Venrooij, 1995; Ranyard and Craig, 1995; Overton and MacFadyen, 1998). It can be assumed that underestimating the duration of a credit goes along with underestimating the emotional burden of a loan. Hoelzl *et al.* (2009) showed in a cross-sectional study that indebted house owners underestimated the future burden of their loan compared with home owners in that respective situation.

Based on the literature, we hypothesize that people experience saving as more pleasant than credit when the consumer good and the payments are mentally coupled. People buying a product by saving should show an increase in positive emotions regarding the product over time from the beginning of the saving payments: outstanding payments are decreasing, and subsequent consumption can be enjoyed as if it were free. People buying a consumer good by taking out a loan should show a decrease in positive emotions regarding the product from the beginning of the credit payments: consumption experience is finished early, and outstanding payments are therefore more and more burdensome because they are not buffered by thoughts about consumption. Therefore, people who save should experience the consumer good as more favourable than people buying a product by taking out a loan. Furthermore, we hypothesize that people will not accurately anticipate the intensity of their emotions, with there being a divergence between anticipation and actual experience.

Of course, saving and credit are usually related to expensive products, and these are difficult to examine in an experimental design. In the current study, we aim to simulate one particular aspect of credit and saving: prepaying before consumption vs. repaying after consumption. We examine our hypotheses in this particular context in a longitudinal design.

Method

Participants

Participants were 100 students from the University of Vienna; the majority of students studied psychology (24%), followed by geography (20%), and anthropology (17%). One participant did not show up for the second measurement point. The median age was 23 years, and ages ranged from 18 to 47. There were 61 female participants, 37 male participants, and 1 participant that chose not to report gender. Participants were addressed in the university building and asked to participate in a study on credit and saving in the consumer context that would involve two separate visits to the laboratory; after the participants agreed, they were led to the laboratory.

Material

In order to simulate a credit and a saving situation through a behavioural approach, a longitudinal experiment with two measurement points over 2 weeks was conducted. Participants received a budget from which they bought a product using different payment types: the credit payment type involved receiving the product first and paying for it later in two parts; the saving payment type involved paying first in two parts and receiving the product later. Participants were randomly assigned to one of the two payment types: 54 participants were assigned to the credit condition, and 45 participants were assigned to the saving condition. The slight imbalance of number of participants in the two conditions resulted from the procedure used for random assignment: because participants had to make affective forecasts for both payment types, they were subsequently asked to draw one of two lots offered to them in a box. Participants made affective forecasts about the product for both payment types, and these forecasts were subsequently compared with their actual experience. A flow chart of the study is provided in Table 1.

Product

Participants bought a gift basket containing five different products (chocolate, gummi bears, candies, potato chips and peanuts). All products were high-quality brand products and were presented in a small basket with an appealing gift wrap. The average price of all five products was around 7 euro, not including the gift wrap.

Payment type

To simulate a salary, participants received 8 euro at each of the two meetings as a show-up fee. Participants had to buy the gift basket for 6 euro in two payments of 3 euro. In the saving condition, they paid 3 euro per meeting as a savings payment and received the gift basket at the end of the second meeting from their saved money (6 euro in total). In the credit condition, participants received the gift basket at the beginning of the first meeting and then had to pay 3 euro as a credit repayment during the first and second meetings (6 euro in total). At the end of the study, they kept 10 euro in cash and the gift basket.

Forecasted emotions

Participants made eight affective forecasts: (a) for the product and the payment; (b) for being assigned to the credit condition and for being assigned to the saving condition; and (c) for short-term (directly after the assignment) and long-term perspectives (2 weeks after the assignment). For example, the instructions were to '... imagine you were assigned to the saving condition, i.e. you will save money at this meeting and the next meeting, and you will get the gift basket in two weeks. How would you feel right after the assignment if you think about the gift basket (which does not belong to you yet because you still have to save money for it)?' The sentence in parenthesis was supposed to strengthen the coupling between the product and the payments. For measuring affective forecasts, three subscales from the Consumption Emotion Set (Richins, 1997) were used: 'joy' with the items happy, pleased and joyful; 'contentment' with the items contented and fulfilled; and

Table 1 Flow chart for procedure

Meeting 1	Show-up fee, explanation of procedure Forecasted emotions: gift basket and payment, credit and saving condition, short- and long-term Preference for credit Random assignment to credit or saving condition Credit Receipt of gift basket Filler items gift basket Experienced emotions gift basket Filler items personality Credit payment Experienced emotions payment Demographic variables	Saving Announcement: receipt of gift basket in 2 weeks Filler items gift basket Experienced emotions gift basket Filler items personality Saving payment Experienced emotions payment Demographic variables
Meeting 2	Show-up fee, reminder of procedure Credit payment Experienced emotions payment Filler items personality Reminder: receipt of gift basket 2 weeks ago Filler items gift basket Experienced emotions gift basket	Show-up fee, reminder of procedure Saving payment Experienced emotions payment Filler items personality Receipt of gift basket Filler items gift basket Experienced emotions gift basket

Note: Differences in the procedure between the credit and the saving condition are marked in bold.

'worry' with the items nervous, worried and tense. Possible answers ranged from 1 (not at all) to 4 (very much). Due to a floor effect in the worry items ($M = 1.18$ – 1.97), these items were excluded from further analysis. Moreover, a factor analysis showed that the joy and contentment items loaded on one factor. Therefore, these five items were pooled into a single scale of forecasted positive emotions. Cronbach's α over the eight forecasts ranged from 0.88 to 0.93.

Experienced emotions

Participants indicated their actual feelings regarding the gift basket at two time points: (a) directly after the assignment to the credit or saving condition, before the first payment (short-term affective experience); and (b) two weeks later, after the last payment (long-term affective experience). For example, the participants were asked 'How do you feel now, when you think about the gift basket (that now belongs to you)?' Participants also indicated their feelings regarding the payments immediately after putting the money into the box. The same scales for forecasted emotions were used. Again, worry items showed a floor effect ($M = 1.12$ – 1.72) and were excluded from further analysis. Due to high loading on the same factor, the five joy and contentment items were again pooled into a single scale of experienced positive emotions. Cronbach's α over the four measurements ranged from 0.89 to 0.93.

Filler items

To occupy the participants with the products in the gift basket and to strengthen the vivid imagination of consumption, the participants were asked 10 questions about the products in the gift basket. For example, 'What kind of chocolate is contained in the candies?' and 'How many different kinds of chocolate does this brand offer?' To separate the product from the payments by a certain time span, participants answered some filler items on per-

sonality scales. These items were about the participants' general approach to emotion management in everyday life. Items did not include any specific emotions, but only broad viewpoints (e.g. 'emotions are an important part of my life') and were kept strictly parallel in both experimental conditions. The answers on the filler items were not used in the study.

Procedure

When participants came to the laboratory for the first meeting, the experimenter presented them with a cash payment and a gift basket and explained the two payment types and the random assignment to these types. After comprehension of the procedure was assured, participants made affective forecasts for both cases, being assigned to the credit condition and to the saving condition. The experimenter then randomly assigned participants to one of the two conditions by drawing lots. Participants assigned to the credit condition received the gift basket immediately; participants assigned to the saving condition were told that they would receive the gift basket in 2 weeks. All participants answered the filler items on the gift basket and then indicated their current experienced emotions regarding the gift basket. After completing the filler items on personality, all participants made their payments by putting 3 euro into a box. The instructions labelled the payments as either credit or saving payments according to the experimental condition. Participants then indicated their experienced emotions regarding this payment. Finally, participants reported demographic variables and were dismissed until the next meeting 2 weeks later.

At the second meeting, the experimenter handed over the cash payment for participation and gave a brief reminder of the procedure. Participants started with the credit or saving payment by putting 3 euro into a box and indicated their current experienced emotions regarding the payment. After answering the filler items on personality, participants in the saving condition received the

Table 2 Univariate analysis for positive emotions about the gift basket

Effect	<i>F</i> (1, 97)	<i>P</i>	η^2
Payment type	12.65	<0.01	0.11
Experience state	0.52	0.47	0.00
Time point	21.65	<0.01	0.18
Payment type $\times$ time point	26.23	<0.01	0.21
Payment type $\times$ experience state	0.84	0.36	0.00
Experience state $\times$ time point	0.39	0.53	0.00
Payment type $\times$ time point $\times$ experience state	4.76	0.03	0.04

gift basket; participants in the credit condition were reminded that they already had received the gift basket, but they were allowed to inspect it again. They answered additional filler items regarding the products and indicated their current experienced emotions regarding the gift basket. Finally, they were given the opportunity to enquire about the background of the experiment, and they were thanked and dismissed.

This procedure ensured optimal comparability of the two conditions: the procedure was absolutely identical for all participants except for the point in time when they received the gift basket and the labelling of the payments. In the credit condition, participants received a product first and later had to pay for it; in the saving condition, participants first had to pay and received a product later.

Results

To investigate differences in experienced and forecasted positive emotions regarding the gift basket for the two payment types over two time points, a mixed $2 \times 2 \times 2$ analysis of variance was conducted with one between-subject factor, payment type (credit vs. saving), and two within-subject factors, experience state (forecast vs. experience) and time point (short-term vs. long-term). We included time point to test for changes in product-related emotions in the two measurements, 2 weeks apart. The dependent variable was the level of positive emotions regarding the gift basket. Results showed a significant three-way interaction between payment type, experience state and time point, $F(1, 97) = 4.76$, $P = 0.03$, $\eta^2 = 0.04$; detailed results are presented in Table 2. Due to the significant three-way interaction, results are discussed separately for experienced and forecasted emotions.

Experienced emotions regarding the gift basket

As shown in Table 3 and illustrated in Fig. 1, experienced emotions varied differently over time for the two payment types. This payment type $\times$ time point interaction was significant, $F(1, 97) = 7.87$, $P < 0.01$, $\eta^2 = 0.07$. Experienced positive emotions regarding the gift basket in the credit condition showed no significant variation over time, $t(53) = -0.41$, $P = 0.68$, whereas experienced positive emotions in the saving condition increased from time point 1 to time point 2, $t(44) = -3.77$, $P < 0.01$. Experienced emotions in the credit and saving condition did not differ significantly at time point 1, $t(97) = -0.96$, $P = 0.33$, but were significantly higher in the saving condition than in the credit condition at time point 2, $t(97) = -4.62$, $P < 0.01$.

Table 3 Short-term and long-term forecasted and experienced positive emotions for the gift basket by payment type

Experience state	Time point	Payment type	
		Credit	Saving
		<i>M</i> (SD)	<i>M</i> (SD)
Experience	Short-term	2.27 (0.88)	2.44 (0.86)
	Long-term	2.32 (0.85)	3.09 (0.78)
Forecast	Short-term	2.45 (0.85)	2.26 (0.76)
	Long-term	2.32 (0.84)	3.25 (0.67)

SD, standard deviation.

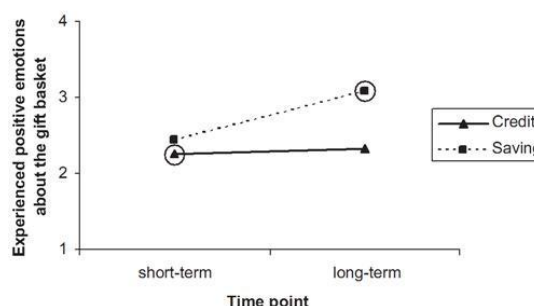


Figure 1 Experienced positive emotions about the gift basket by payment type and time point. Note: circles indicate the evaluation directly after receiving the gift basket.

Experienced emotions regarding the gift basket, immediately after receiving it

Participants in the credit condition received the gift basket at time point 1, whereas participants in the saving condition received it at time point 2. Therefore, it was of interest to compare these two time points to explore differences in the participants' experienced emotions regarding the gift basket just after receiving the product (see circles in Fig. 1). At the time of receipt, participants in the saving condition experienced more positive emotions regarding the gift basket ($M = 3.09$) than participants in the credit condition ($M = 2.27$), $t(97) = -4.85$, $P < 0.01$. This is consistent with the predictions from coupling: participants in the credit condition still had to think about the outstanding payments when receiving the product, whereas participants in the saving condition were able to enjoy the product as if it were free.

Forecasted vs. experienced emotions regarding the gift basket

The three-way interaction suggests that the pattern for forecasted emotions differed from the pattern for experienced emotions. Results showed a significant payment type $\times$ experience state interaction for time point 1, $F(1, 97) = 6.34$, $P = 0.01$, $\eta^2 = 0.06$, but not for time point 2, $F(1, 97) = 0.76$, $P = 0.38$, $\eta^2 = 0.00$. At time point 1, participants in the credit condition significantly

overestimated their positive emotions, $t(53) = -2.71$, $P < 0.01$, forecasting higher positive emotions ($M = 2.45$) than what they experienced ($M = 2.27$). Participants in the saving condition slightly underestimated their emotions, $t(44) = -1.32$, $P = 0.19$. At time point 2, no significant differences were found. However, overall participants were fairly accurate in their forecasts.

Experienced emotions regarding the payments

In order to determine if there is further support for coupling, the difference between the credit and the saving condition in the experienced emotions regarding the payments was analysed. Pooled over the two time points, participants in the saving condition experienced significantly higher positive emotions regarding the payments [$M = 2.53$, standard deviation (SD) = 0.62] than participants in the credit condition ($M = 2.11$, SD = 0.57), $t(97) = -3.43$, $P < 0.01$. This pattern supports the idea of coupling because the payments are seen as more agreeable in the saving condition. One interpretation is that in this condition the payments are still buffered by thoughts of the unconsumed product and therefore seen as more agreeable.

In summary, participants in the saving condition experienced more positive emotions regarding the gift basket right after getting it (at time point 1) than participants in the credit condition (at time point 2). Participants in the saving condition showed an increase in experienced positive emotions from time point 1 to time point 2, whereas in the credit condition no significant variation was found. Although most of the time participants forecasted their emotions correctly, participants in the credit condition overestimated their positive emotions for the gift basket right after receiving it. Experienced emotions regarding the payments further supported the idea of coupling.

Discussion

This study showed that payment type has an impact on product-related emotions. Specifically, it was shown that repaying for a consumer good (credit condition) leads to more negative product-related experienced emotions, while prepaying for a consumer good (saving condition) leads to more positive product-related experienced emotions.

This study extends the findings from existing research on mental coupling between payments and consumption. The idea of coupling was first proposed in the model of double-entry mental accounting (Prelec and Loewenstein, 1998), which assumes that the joy of consumption and the pain of paying are interrelated. Following this proposition, it could be shown that people indeed experience mental coupling (e.g. Hoelzl *et al.*, 2009), and that different degrees of coupling have different consumer behavioural consequences (Soman and Gourville, 2001; Soman, 2003; Knutson *et al.*, 2007; Raghurir and Srivastava, 2008; Rick *et al.*, 2008; Wonder *et al.*, 2008; Yamamoto *et al.*, 2008; Inman *et al.*, 2009). Furthermore, it was suggested that coupling leads to general debt aversion: in the case of debt, people experience a decrease in positive emotions over time, while in the case of saving, the burden of outstanding payments should decrease over time and therefore have less of a negative influence on the joy of consumption (Prelec and Loewenstein, 1998).

This study was designed based on these results and showed that payment type (i.e. credit or saving) has an effect on product-related emotions. The product was experienced more positively in the saving group than in the credit group. These results are consistent with the previous findings that payment type has an effect on the evaluation of a transaction (Siemens, 2007) and the evaluation of past expenses (Soman, 2001).

This study explicitly separated forecasted and experienced emotions in order to investigate possible differences between them. In line with the findings from the field of affective forecasting (see Wilson and Gilbert, 2003), it was shown that participants were not always accurate in their forecasts due to a misestimation of their experienced emotions. However, this divergence was not very pronounced, showing a more general tendency to misforecast future emotions from time to time.

Some limitations need to be considered. First, this study used an artificial laboratory situation to simulate credit and saving behaviour. Therefore, it is unknown if these results will hold true for real credit and saving situations, especially when considering that these results showed interaction effects, which are supposed to have lower robustness. Second, participants in this study received a small gift basket with different products inside. Although the products were high quality and attractively wrapped, decisions of saving and credit are usually made for more expensive and significant products. Moreover, our products were perishable goods, but in most cases, credit is used for durable products. Therefore, it needs to be determined if these results can be generalized to other products and to real-life credit and saving situations. Nevertheless, because these findings are supposed to reflect a basic principle of consumer evaluations, they are expected to be replicated in other contexts and for other product types. Third, one potential criticism may be that participants were using money they received as payment for their participation. However, this money was clearly described as an incentive for participating in the study and not as a budget from which they had to buy the gift basket. Therefore, we assume that participants experienced the money as their own. Future research should take these limitations into account and validate the results in a real-world scenario. It would be interesting to focus on specific products from specific shops, and to ask consumers who buy these products either by repayment or by prepayment about their product-related emotions – before and some time after their purchase. This would allow conclusions about different product types and customer satisfaction within a real-world situation.

This study has several implications for understanding customer satisfaction, for customer education and for marketing. The results show that an identical product elicits different consumption-related emotions according to payment type (repayment or prepayment). Product-related emotions in turn were shown to have a direct impact on customer satisfaction (Westbrook, 1987; Westbrook and Oliver, 1991; Mano and Oliver, 1993). The same product can therefore lead to less customer satisfaction when repaying and to more customer satisfaction when prepaying. Moreover, our results show that consumers are not always able to foresee this effect, which might result in disappointment in the long run. Customers should therefore be aware of the tendency that the same product might make them less satisfied in the long run if they chose to pay by credit. Moreover, it is known that negative evaluation of payments has a negative effect on future

buying (Soman, 2001) or vice versa, that satisfaction has a direct effect on purchase intention (Tsiotsou, 2005). Therefore, these tendencies might influence future purchase decisions and have a substantial negative effect on customer retention. For increased consumer (self-) protection (see e.g. Kozup and Hogarth, 2008), the notion that payment type can influence satisfaction could be included into financial education programs.

Considering that consumer debt increased tremendously over the last few decades (Girouard *et al.*, 2006), shops offering product-related credits should be particularly aware of the fact that repayment and credits may lower satisfaction with the products. Credit card use might also be seen as a form of repaying, as the payments are made some weeks after the product is received (Siemens, 2007). However, several authors suggest that credit card debt is a special sort of debt, as expenses are pulled together into one bill, and therefore reduce the coupling between product and payments (e.g. Prelec and Loewenstein, 1998; Raghuram and Srivastava, 2008).

In conclusion, shops that offer product-related credit might profit from developing marketing strategies for customer retention. For example, shops might think about special benefits for customers buying products on consumer credit, where benefits are provided throughout the whole consumption period. These benefits could be small presents, special customer service or calls asking about the customers' satisfaction with the product. Providing these extra benefits might buffer the negative effect of payments and increase positive evaluation of the product, leading to an increase in customer satisfaction over time. On the consumer side, customers should be made aware that payment type may influence product perception. Consumer education programs should consider including information about the negative effects repayment can have on customer satisfaction in order to allow a more conscious decision on the right payment type and to avoid dissatisfaction.

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Article 2

Hoelzl, E., Hahn, L., Pollai, M. & Masak, J. (in press). The effect of feedback on process and outcome of loan negotiations: Consequences on risk aversion and the willingness to compromise. *Group Decision & Negotiation*, doi 10.1007/s10726-012-9282-x.

The Effect of Feedback on Process and Outcome of Loan Negotiations: Consequences on Risk Aversion and the Willingness to Compromise

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Abstract We examined the influence of feedback regarding alternatives on risk aversion and willingness to compromise in student loan negotiations. In a simulated negotiation, participants in the roles of bank advisors and clients received feedback about alternative offers either only after an impasse of the negotiation, or regardless of outcome. When receiving feedback only after an impasse, participants tried to avoid the regret-eliciting feedback and therefore set less ambitious goals and showed higher willingness to compromise. In particular, they set a less ambitious reservation price and estimated a less beneficial ‘best alternative to negotiated agreement’. When analyzing the process of the negotiation, we found that they made less favorable offers more quickly and arrived at less favorable final offers. They sacrificed their previously set goals by violating their reservation prices and underbidding their estimated ‘best alternative to negotiated agreement’ more often. Therefore, they showed a higher potential for agreement with the other party, but at the cost of less favorable outcomes. Results indicate that anticipated regret could contribute to suboptimal negotiation outcomes in the context of student loans, which might lead to long term dissatisfaction.

Keywords Loan use · Negotiation · Anticipated regret · Feedback · Willingness to compromise

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Published online: 29 January 2012

 Springer

1 Introduction

People who wish to take up a loan have to negotiate with their bank advisor about the interest rate and other conditions of the loan. As banks usually offer different interest rates, clients should carefully examine whether they want to accept an offer or wait for an alternative offer from a different bank. If they accept an offer and learn that they would have received a better offer from another bank, they will probably experience regret. Younger and less experienced clients, such as students taking loans, might be particularly susceptible to the trap of accepting unfavorable offers too early. As regret is an aversive emotion that people often actively try to avoid (for a review, see [Zeelenberg and Pieters 2007](#)) and negotiations are strongly influenced by the negotiator's affect ([Barry 2008](#)), the anticipation of regret constitutes a fundamental aspect of loan negotiations.

Earlier research showed that the availability of feedback about alternatives to an agreement influenced negotiators' anticipated regret and consequently their offers ([Larrick and Boles 1995](#)). In particular, when feedback was provided only in cases of non-agreement, regret about a possibly worse outcome was avoided by more cooperative offers. If feedback was provided regardless of outcome, regret was avoided by more demanding offers.

In the current study, we expanded this line of research into the loan context: we examined the influence of different feedback types on goal-setting and willingness to compromise in student loan negotiations of interest rates. As examining the process of a negotiation can give important additional insight into how parties behave during the negotiation as well as how they finally achieve their agreement or non-agreement, we also examined the different processes of offers depending on feedback type in detail.

Loan decisions are often far reaching and may have a strong influence on the life of a loan taker: indebted persons have been shown to be more worried about money ([Hayhoe et al. 1999](#)) and less likely to be in a state of complete psychological well-being ([Brown et al. 2005](#)). Additionally, research suggests that loan decisions are susceptible to biases, e.g., by underestimating loan duration ([Lewis and van Venrooij 1995](#)) or subjective loan burden ([Hoelzl et al. 2009](#)).

Student debt in particular has become a popular focus of recent research. Several studies have shown that a tremendous number of students are in debt when just entering college ([Jones 2005](#)). Indebted students have a more tolerant and more positive attitude towards debt ([Davies and Lea 1995](#); [Hayhoe et al. 2005](#)) and have a decreasing fear of debt over time ([Haultain et al. 2010](#)). There is also evidence that strong pressure from peers results in debt-causing behavior by students ([Wang and Xiao 2009](#)). The fact that credit cards are easily obtainable for students enlarges the problem of student indebtedness, as they strengthen compulsive buying if students have positive attitudes towards credit ([Roberts and Jones 2001](#)). Even small loans can have severe consequences on students' money management ([Autio et al. 2009](#)). The number of defaulted student loans is high ([Flint 1997](#)). These results are especially alarming as many students do not have sufficient knowledge about their own credit card details, such as credit balance and interest rate ([Warwick and Mansfield 2000](#)). Beyond this, research has shown that students only have poor financial knowledge in general ([Chen and Volpe 1998](#)).

The addressed questions therefore have important implications for the design of loan negotiations, and for educating consumers, especially students taking loans, as well as bank advisors in minimizing their risk of accepting unfavorable offers too early and making loan decisions that are dissatisfying in the long run.

1.1 The Role of Feedback for Anticipated Regret and Regret-averse Behavior

Regret theory states that people will feel regret if they find out that an alternative to their decision would have been more beneficial (Bell 1982; Loomes and Sugden 1982). As regret is an unpleasant feeling, people actively try to avoid it by making decisions that will presumably minimize their regret (Zeelenberg and Pieters 2007). Accordingly, anticipated regret was found to influence decision making: for example, consumers tended to choose conventional instead of unconventional products when they were asked to consider the potential regret of their choice (Simonson 1992). Consumers anticipating regret also kept rather than dropped an existing service relationship (Lemon et al. 2002), and made decisions more carefully (Reb 2008). The influence of anticipated regret on decision making was shown in various contexts, for example insurance decisions (Hettis et al. 2000), health related decisions (Connolly and Reb 2003), or sexual behavior (Richard et al. 1996). In general, this influence has also been studied in the context of consumer and financial decision making (White et al. 2007).

As regret is a comparison-based emotion (Zeelenberg and Pieters 2007), available feedback about the outcomes of non-chosen options influences the anticipation of regret (Larrick 1993). If people know that they will be informed about the consequences after they have made their choice, they anticipate feeling regret in case their choice is less beneficial than the alternative (Josephs et al. 1992; Ritov and Baron 1995). This could be shown in a study that compared two forms of Dutch lotteries: the State lottery, in which participants buy a ticket with a number on it, and the Postcode lottery, in which the postcode is used as ticket number (Zeelenberg and Pieters 2004). Persons who do not play the lottery therefore do not receive any feedback about possible winnings in the State lottery, but do automatically receive feedback in the Postcode lottery. This feedback was shown to increase the anticipated regret in case a neighbor with the same postcode won a price. This anticipated regret was a significant predictor of the decision to play the lottery.

Despite earlier propositions that the anticipation of regret always leads to more risk-seeking behavior (Kardes 1994), it could be shown that people rather act in a regret-reducing way, resulting in either risk-seeking or risk-avoiding behavior (Zeelenberg et al. 1996). In an experimental gambling situation, participants had the choice between a relatively risky gamble and a relatively safe gamble. In one condition, participants were told to receive feedback about the riskier gamble regardless of their choice, but to receive feedback about the safer gamble only if they chose it. In this case, participants preferred the riskier gamble. In the other condition, participants expected to receive feedback about the safer gamble regardless of their choice, but to receive feedback about the riskier gamble only if they chose it. In this case, participants preferred the safer option. Participants therefore avoided the possibility of experiencing regret by

comparing their outcome with the non-chosen alternative: they acted regret-averse, which resulted in either risk-seeking or risk-avoiding behavior.

In summary, people experience regret if they find out that an alternative to their chosen option would have been better—a result that has also been shown in some studies on financial decision making. If feedback about the outcomes of these alternatives is provided, people anticipate regret when making decisions, and actively try to avoid it.

1.2 The Role of Feedback and Anticipated Regret in Negotiations

Larrick and Boles (1995) examined the influence of feedback on behavior in negotiations. Based on the findings that feedback about consequences should result in more anticipated regret, they postulated that people behave more cooperatively when they receive feedback only after an impasse of the negotiation compared to when they get feedback regardless of outcome. Cooperation in the first case could avoid the regret-eliciting feedback. In their study, participants had to take on the role of either a job applicant or the vice president of a firm. Each job applicant negotiated with each vice president about the applicant's bonus. Both sides had only one alternative option: either taking an offer from another firm or hiring another applicant.

The corresponding bonus for the alternative option represents the 'best alternative to negotiated agreement' (BATNA; Fisher and Ury 1981). Before the negotiation, participants only knew the distribution of the BATNA, but not its exact value. This made agreement in the negotiation risky because the BATNA could be more favorable. Participants were assigned to one of two feedback conditions: either to learn the BATNA (the alternative bonus) regardless of the negotiation outcome, or to learn it only when the negotiation resulted in an impasse. In the first case, making demanding offers can help to avoid regret, because being too cooperative increases the likelihood that the real BATNA would be more favorable. In the second case, making cooperative offers can help to avoid regret: It makes agreement more likely, and because the real BATNA will only be learned after reaching an impasse, it helps to avoid the feedback.

Larrick and Boles (1995) also elicited the reservation price (i.e., the amount at which the negotiator is indifferent about accepting a final offer or an unknown BATNA; Raiffa 1982) as the most unfavorable offer the negotiator is willing to accept. Setting a less ambitious reservation price makes it more likely that the two reach an agreement. As hypothesized, Larrick and Boles (1995) found that participants who were assigned to the condition of getting feedback about the BATNA only after reaching an impasse set a less ambitious reservation price and were more cooperative, i.e., more likely to reach an agreement.

Based on Larrick and Boles (1995), earlier studies on the influence of feedback on individual decision making were extended to interpersonal decisions. In ultimatum games, the manipulation was whether proposers expected to know the responder's minimal acceptable offer after the game or not (Zeelenberg and Beattie 1997). As expected, participants who expected feedback on the responder's minimal acceptable offer proposed lower amounts of money than participants who did not expect feedback. Therefore, they behaved in a regret-averse way, as they avoided learning that they made an offer that was too high, when a much lower offer would have been accepted by the

responder as well. Considering the influence that regret has on decisions in various contexts, this effect should also be valid in the context of financial negotiations, e.g., loan negotiations.

In the studies described above, there is some evidence that feedback regarding alternatives influences the outcome of negotiations. However, it is also important to consider its influence on the process of negotiations, which has not been examined in these studies. In negotiation research, both the outcome and the process of a negotiation are considered as the standard dependent variables that appear in virtually all published studies on negotiation behavior (Druckman 1994; Thompson et al. 2010). Studies on negotiation processes have examined negotiation strategies (Forgas 1998) and the negotiators' coordination of strategic exchanges (Druckman and Olekalns 2008), response time and response strategy (Stuhlmacher and Champagne 2000), cooperativeness (De Dreu et al. 2000), willingness to make the first offer in a negotiation (Magee et al. 2007), or concession making (Gruder 1971). Moreover, regret and other emotions have been proposed to have an impact on all stages of a negotiation process, including the pre-negotiation situation, and the negotiation process, as well as outcomes and implementation (Barry and Oliver 1996). Therefore, we consider it crucial to include process variables when examining the effect of feedback in negotiations.

Considering the highly sensitive topic of student loans, we are interested in willingness to compromise in the context of student loan negotiations. Referring to standard negotiation literature, we operationalize the willingness to compromise with both outcome and process variables. As participants who receive feedback only after reaching an impasse are expected to show a higher willingness to compromise, this should also be reflected in the process of their loan negotiation.

1.3 Hypotheses

As outlined above, we expected people in a student loan negotiation to be less ambitious and more willing to compromise if they receive feedback only after an impasse than if they receive feedback regardless of outcome. The argument is that in the condition of receiving feedback only after an impasse, it is possible to avoid feedback—and therefore regret—by trying to reach an agreement.

Hypothesis 1 Feedback influences the prerequisites of a loan negotiation in such a way that people who expect feedback only after an impasse set less ambitious goals than people who expect feedback regardless of the outcome, i.e., they set a lower reservation price (Hypothesis 1a) and estimate a lower value of a BATNA (Hypothesis 1b).

Hypothesis 2 Feedback influences the process of a loan negotiation in such a way that people who expect feedback only after an impasse are quicker to make concessions than people who expect feedback regardless of the outcome (Hypothesis 2).

Hypothesis 3 Feedback influences the outcome of a loan negotiation in such a way that people who expect feedback only after an impasse make a more unfavorable final offer (Hypothesis 3a), violate their reservation price more often (Hypothesis 3b), underbid their estimated value of a BATNA (Hypothesis 3c), and show a higher potential of agreement (Hypothesis 3d).

2 Method

2.1 Participants

Participants were 360 students in economics (174 female; 184 male) from the Universities of Vienna and Graz. The median age was 26 years, ages ranged from 18 to 63. Participants were invited via e-mail to participate in the study and were asked to forward the e-mail invitation to other students in economics.

2.2 Material

A computer-simulated negotiation was used; the setting was similar to the study by [Larrick and Boles \(1995\)](#) with important adaptations: first of all, participants were in the context of a student loan negotiation, rather than in the context of a job bonus negotiation. Second, we also observed the process of participants' offers. Third, we switched from a real interaction to a computer-based interaction for a better control of the situation. Participants were asked to put themselves in the role of either a bank advisor or a bank client, and to negotiate the interest rate of a student loan. Their goal was to negotiate the most favorable interest rate for themselves, i.e., high from the bank advisor's perspective and low from the client's perspective. In the simulated situation, they should imagine their opponent to be either a client or a bank advisor, respectively. In fact, all participants received answers from a computer algorithm that gave standardized answers depending on the interest rate offered by the participant. Participants were informed that, at the end of the negotiation, they would either get feedback about their BATNA only if the negotiation was unsuccessful, or regardless of the outcome of the negotiation. Participants were randomly assigned to role and feedback conditions.

2.2.1 Role Description

We adapted the whole simulation context to the banking sector, so participants were either in the role a bank advisor or in the role of a client of that bank. In the *bank advisor* condition, participants were told to imagine being the branch manager of a bank, who should give a loan of 100,000 Euro to a client. They would now meet a client with whom they had to negotiate about the interest rate of that loan. In the *client* condition, participants were told to imagine wanting to take an MBA at one of the most prestigious universities, and that they decided to take up a loan of 100,000 Euro for this MBA. They would now meet a bank advisor of JRS bank with whom they had to negotiate about the interest rate of that loan.

2.2.2 Feedback Description

In the condition of getting *feedback only after an impasse*, participants were told that they would learn the interest rate of the alternative loan only if they would *not* reach an agreement; in case of an agreement, they would not be informed about the interest

rate of the alternative loan. In the condition of getting *feedback regardless of outcome*, participants were told that they would learn the interest rate of the alternative loan independent from the outcome of their negotiation.

2.2.3 BATNA

All participants received the same information about their own best alternative to negotiated agreement. Participants in the role of the bank advisor were told that if they do not reach agreement they had to give the loan to another client. They would not be able to negotiate the interest rate of that alternative loan, as a colleague had already negotiated the interest rate with that other client; the participants did not know the exact amount of that interest rate, but they were told that it was between 1 and 12% with a probability of 100% and between 3 and 10% with a probability of 70%. Participants in the role of the client were told that if they do not reach an agreement, they had to take the loan of another bank, the ABC bank. They would not be able to negotiate an interest rate with the other bank; the participants did not know the exact amount of that interest rate, but received the same probabilities as the bank advisors. All participants were told that the result of their negotiation is binding if they reach agreement.

2.2.4 Reservation Price

Participants in the role of bank advisors were asked: “What is the lowest interest rate that you would accept in the negotiation?” Participants in the role of clients saw the same formulation with “highest interest rate”.

2.2.5 Estimated BATNA

Participants in the role of bank advisors were asked “How high do you estimate the interest rate that your colleague offered to the other client?” Participants in the role of clients were asked: “How high do you estimate the interest rate at ABC bank?”

2.2.6 Offer of Interest Rate

For examining both the outcome and the process of the negotiations, participants made offers for the loan interest rate, for a maximum of five rounds. The instruction was: “Please make your [first] offer to your conversation partner, using percentages”. All offers made by the participants were saved in the computer system.

2.2.7 Algorithm

Depending on the offer the participants made, they received a standardized reply from the computer program. The answers were constructed in a way that should stimulate the participants in the role of bank advisors to give a lower next offer and have the opposite effect on clients. At a predetermined level, the program directly accepted the offer. The complete algorithm is given in the Appendix.

2.2.8 Feedback About BATNA After Final Offer

If the negotiation was unsuccessful, all participants received feedback about the alternative loan. In this case, they were told that the interest rate of the alternative loan would have been extraordinarily good: 10% for the bank advisors, and 3% for the clients. Participants who were in the condition of receiving feedback regardless of outcome also received feedback if they negotiated successfully. In this case, they learned that the alternative offer would have been worse than their agreement: Their last offer minus 1% for the bank advisors, and plus 1% for the clients. As the feedback was given after the negotiation, it did not have any influence on the negotiation process or outcome; the specific values were chosen because they provided an acceptable alternative that was close to the negotiators' last offers.

2.2.9 Potential for Agreement

In contrast to the study of [Larrick and Boles \(1995\)](#), participants did not interact with each other, but with a computer-generated algorithm. Potential for agreement in each condition was calculated as the number of possible agreements between all pairings of participants in the roles of clients and participants in the role of bank advisors.

2.3 Procedure

In the e-mail invitation, participants received a link to the study homepage. As an incentive for participation, they were told in the invitation letter that they could take part in a lottery for an iPod shuffle when having finished the experiment. There was no association between the chances of winning the iPod and the participants' answers or outcome. After filling out demographic items on sex and age, participants were randomly assigned to the role of either bank advisor or client, and to one of the two feedback conditions. They then received a short description of the negotiation situation according to their role and feedback condition, using the scenario and the feedback manipulation described above. Female participants were asked to put themselves in the position of a female bank advisor or client and were told to meet a female negotiation partner; male participants received corresponding male role descriptions. After participants read the scenario, they were asked to estimate the 'best alternative to negotiated agreement' and to indicate their reservation price. In the following, they started the negotiation, subsequently giving five offers, and receiving the standardized answers from the computer algorithm after each offer. Offers between 0.5 and 12% were possible, and participants were not required to use integer numbers. After the final offer, participants were provided with feedback about their BATNA if they were in the condition of receiving feedback regardless of outcome, or if they were in the condition of receiving feedback only after an impasse, and negotiated unsuccessfully.

3 Results

3.1 Prerequisites of the Negotiation

Hypothesis 1 states that feedback influences the prerequisites of a loan negotiation and decreases ambition. More specifically, the goals a person sets in terms of reservation price and estimated BATNA will be easier to reach. For each variable, 2×2 Analyses of Variance (ANOVA) were conducted with between-subject factors role (bank advisor vs. client) and feedback (only after impasse vs. regardless of outcome) as independent variables. The correlation between reservation price and estimated value of a BATNA was $r = .76$, $p < .01$.

3.1.1 Reservation Price

Consistent with Hypothesis 1a and as shown in Table 1 (left part), the results showed a significant interaction between role and feedback for participants' reservation price, $F(1, 354) = 37.79$, $p < .01$, $\eta_p^2 = .09$. Participants in the role of bank advisors set a lower (and therefore less ambitious) reservation price when expecting feedback only after an impasse compared to those who expected feedback regardless of outcome, $t(178) = 5.70$, $p < .01$ one-sided. Accordingly, participants in the role of clients set a higher (and therefore less ambitious) reservation price when expecting feedback only after an impasse than when expecting feedback regardless of outcome, $t(176) = -3.07$, $p < .01$ one-sided. If participants in the role of clients and in the role of bank advisors would have interacted on the basis of their stated reservation price, the potential for agreement would have been considerably lower in the condition of feedback in any case. In this condition, 88 participants in the role of clients and 88 participants in the role of bank advisors resulted in 7744 possible pairings of reservation prices. In each pairing, a reservation price from the bank that was lower or equal to the reservation price of the client was counted as a potential agreement. 1933 pairings (25.0%) had such a pattern. In the condition of feedback only after impasse, 90 participants in the role of clients and 92 participants in the role of bank advisors result in 8280 possible pairings. 4905 pairings (59.2%) had a pattern of potential agreement.

Table 1 Reservation price and estimated BATNA by role and feedback condition

Role	Feedback	Reservation price	Estimated BATNA
		<i>M</i> (SD)	<i>M</i> (SD)
Bank advisor	Only after impasse	6.03 (2.06)	6.08 (1.77)
	Regardless of outcome	7.85 (2.20)	7.71 (1.73)
Client	Only after impasse	6.46 (2.09)	7.18 (2.09)
	Regardless of outcome	5.41 (2.41)	6.35 (2.21)

Reservation price: least favorable interest rate that is acceptable

Estimated BATNA (best alternative to negotiated agreement): estimate of alternative interest rate

Table 2 ANOVA results for offered interest rates by role, feedback and negotiation round

Effect	<i>F</i>	<i>df</i>	<i>p</i>	η_p^2
Role	160.07	1, 354	<.01	.31
Feedback	0.44	1, 354	.50	.00
Negotiation round	11.68	4, 1416	<.01	.03
Role $\times$ Feedback	47.73	1, 354	<.01	.11
Role $\times$ Negotiation round	351.17	4, 1416	<.01	.49
Feedback $\times$ Negotiation round	0.58	4, 1416	.67	.00
Role $\times$ Feedback $\times$ Negotiation round	7.05	4, 1416	<.01	.02

The effect of feedback significantly increased the proportion of pairings that would have reached agreement, $\chi^2(1, n = 16,024) = 1,921.94, p < .01$ one-sided.

3.1.2 Estimated value of a BATNA

Consistent with Hypothesis 1b and as shown in Table 1 (right part), the results showed a significant interaction between role and feedback for participants' estimated value of a BATNA, $F(1, 354) = 35.19, p < .01, \eta_p^2 = .09$. Participants in the role of bank advisors estimated a lower value of a BATNA when expecting feedback only after an impasse compared to when expecting feedback regardless of outcome, $t(178) = 6.24, p < .01$ one-sided. Accordingly, participants in the role of clients estimated a higher value of a BATNA when expecting feedback only after an impasse compared to when expecting feedback regardless of outcome, $t(176) = -2.57, p < .01$, one-sided.

3.2 Process of the Negotiation

Hypothesis 2 states that feedback influences the process of the loan negotiation and leads to a higher willingness to compromise. More specifically, people will be quicker in making concessions.

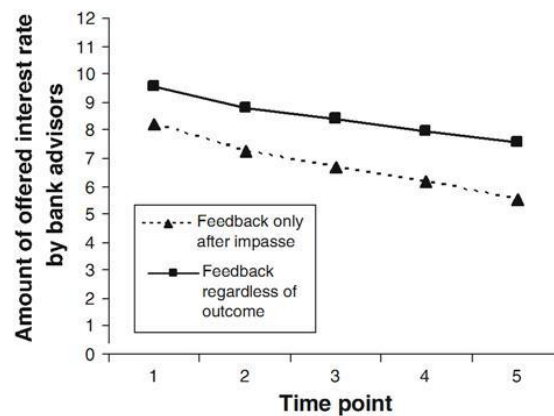
3.2.1 Course of the Negotiation

To investigate differences in the offers of interest rates for the two roles of participants and two feedback conditions over five time points, a mixed $5 \times 2 \times 2$ ANOVA was conducted with two between-subject factors, role (bank advisor vs. client) and feedback (only after impasse vs. regardless of outcome), and one within-subject factor, negotiation round (round 1 to round 5). Results showed a significant three-way interaction between role, feedback and negotiation round, $F(4, 1416) = 7.05, p < .01, \eta_p^2 = .02$; detailed effects are presented in Table 2. Due to the significant three-way interaction, results are discussed separately for participants in the role of bank advisors and clients.

The interest rates offered by participants in the role of *bank advisors* varied differently over time for the two feedback conditions. As shown in Table 3 and illustrated

Table 3 Offered interest rates by role, feedback condition and negotiation round

Role	Feedback	Negotiation round				
		R 1 <i>M</i> (SD)	R 2 <i>M</i> (SD)	R 3 <i>M</i> (SD)	R 4 <i>M</i> (SD)	R 5 <i>M</i> (SD)
Bank advisor	Only after impasse	8.21 (2.76)	7.28 (2.49)	6.69 (2.28)	6.15 (2.20)	5.55 (1.92)
	Regardless of outcome	9.56 (2.79)	8.77 (2.71)	8.39 (2.52)	7.95 (2.49)	7.57 (2.55)
Client	Only after impasse	3.36 (2.21)	4.83 (2.21)	5.79 (2.13)	6.44 (2.20)	7.14 (2.15)
	Regardless of outcome	2.57 (1.64)	3.61 (1.90)	4.19 (2.02)	4.82 (2.21)	5.47 (2.32)

**Fig. 1** Offered interest rate by bank advisors, by negotiation round and feedback condition

in Fig. 1, the difference in offered interest rates between the two feedback conditions grew larger over time, and the interaction between feedback and negotiation round was significant, $F(4, 712) = 2.66$, $p = .03$, $\eta_p^2 = .01$. Offers declined significantly in both conditions, $F(4, 348) = 41.57$, $p < .01$, $\eta_p^2 = .32$ for feedback only after impasse, $F(4, 364) = 91.61$, $p < .01$, $\eta_p^2 = .50$ for feedback regardless of outcome. In every negotiation round, offered interest rates were significantly lower in the feedback only after impasse condition: round 1 $t(178) = 3.25$, round 2 $t(178) = 3.85$, round 3 $t(178) = 4.71$, round 4 $t(178) = 5.13$, round 5 $t(178) = 5.99$, all $p < .01$ one-sided.

Also the interest rates offered by participants in the role of *clients* varied differently over time for the two feedback conditions. The difference in the amount of offered interest rates between the two Feedback conditions grew larger over time, as illustrated in Fig. 2, and the feedback $\times$ negotiation round interaction was significant, $F(4, 704) = 4.82$, $p < .01$, $\eta_p^2 = .02$. Offers increased in both conditions, $F(4, 356) = 125.29$, $p < .01$, $\eta_p^2 = .58$ for feedback only after impasse, $F(4, 348) = 107.16$, $p < .01$, $\eta_p^2 = .55$ for feedback regardless of outcome. In every negotiation round, offered interest rates were significantly higher in the feedback only

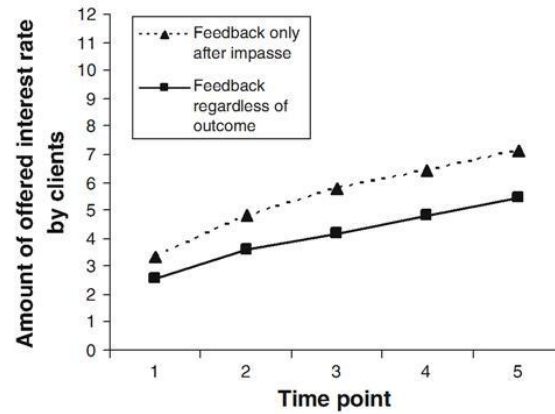


Fig. 2 Offered interest rate by clients, by negotiation round and feedback condition

after impasse condition: round 1 $t(176) = -2.68$, round 2 $t(176) = -3.92$, round 3 $t(176) = -5.11$, round 4 $t(176) = -4.87$, round 5 $t(176) = -4.94$, all $p < .01$ one-sided.

To summarize, participants in both roles and in both feedback conditions made more agreeable offers over time. However, and in accordance with Hypothesis 2, participants who expected feedback only after an impasse started out with more agreeable offers and also were quicker to make concessions, i.e., moving quicker to even more agreeable offers.

3.3 Outcome of the Negotiation

Hypothesis 3 states that feedback influences the outcome of the loan negotiation, i.e. people make a less favorable final offer, will be more willing to sacrifice their previous goals, and will show a higher potential for agreement.

3.3.1 Final Offer

To analyze the final offer in more detail, a 2×2 ANOVA was conducted with independent variables role (bank advisors vs. client) and feedback (only after impasse vs. regardless of outcome). Consistent with Hypothesis 3a and as shown in Table 3 (right part), the results showed a significant interaction between role and feedback, $F(1, 354) = 59.81$, $p < .01$, $\eta_p^2 = .14$. Participants in the role of bank advisors offered a lower (-2.02%) interest rate when expecting feedback only after an impasse than when expecting feedback regardless of outcome. Accordingly, participants in the role of clients offered a higher ($+1.67\%$) interest rate when expecting feedback only after an impasse than when expecting feedback regardless of outcome (for results of t-tests see results on the course of the negotiation, chapter 3.2). Both sides therefore made less favorable final offers.

Table 4 Number of participants who violated their reservation price and their estimated BATNA, by role and feedback condition

Role	Feedback	Violation of reservation price		Violation of estimated BATNA	
		Yes	No	Yes	No
Bank advisor	Only after impasse	50	42	45	47
	Regardless of outcome	29	59	31	57
Client	Only after impasse	53	37	35	55
	Regardless of outcome	36	52	14	74

3.3.2 Violation of Reservation Price

As shown in Table 4 (left part) and consistent with Hypothesis 3b, more participants made a final offer that was worse than their reservation price when expecting feedback only after an impasse than when expecting feedback regardless of outcome, $\chi^2(1, n = 180) = 8.36$, $p < .01$ one-sided for bank advisors, $\chi^2(1, n = 178) = 5.75$, $p = .01$ one-sided for clients. Therefore, both sides were more willing to give up their pre-set goals for the negotiation.

3.3.3 Violation of Estimated BATNA

As shown in Table 4 (right part) and consistent with Hypothesis 3c, more participants in the role of clients made a final offer that was worse than their estimated value of a BATNA when expecting feedback only after an impasse than when expecting feedback regardless of outcome, $\chi^2(1, n = 178) = 11.78$, $p < .01$ one-sided. This effect was also significant for participants in the role of bank advisors, $\chi^2(1, n = 180) = 3.45$, $p = .04$ one-sided. Therefore, both sides were more likely to accept an interest rate that was worse than what they thought the outside offer to be.

3.3.4 Potential for Agreement

For participants who received feedback regardless of outcome, 88 participants in the role of clients and 88 participants in the role of bank advisors resulted in 7,744 possible pairings of final offers. In each pairing, an offer from the bank that was lower or equal to the offer of the client was counted as a potential agreement. 2,133 pairings (27.5%) had such a pattern. In the condition of feedback only after impasse, 90 participants in the role of clients and 92 participants in the role of bank advisors resulted in 8,280 possible pairings. 6,064 pairings (73.2%) had a pattern of potential agreement. Consistent with Hypothesis 3d, feedback significantly increased the proportion of pairings that would have reached agreement, $\chi^2(1, n = 16,024) = 3,343.58$, $p < .01$.

4 Discussion

This study examined the influence of different feedback types on behavior in the context of student loan negotiations. The study showed that participants have a higher risk aversion and therefore a higher willingness to compromise when they expected feedback only after an impasse of the loan negotiation compared to when they expected feedback regardless of outcome. In contrast to previous studies on the effects of feedback, higher willingness to compromise was shown in both the course and the outcome of the negotiation.

This study extends the findings from existing research on the effect of feedback on compromising behavior in negotiations. In numerous studies it was shown that people try to avoid the unpleasant experience of feeling regret and that anticipated regret therefore influences decisions in various contexts (Simonson 1992; Lemon et al. 2002; Reb 2008; Hetts et al. 2000; Connolly and Reb 2003; Richard et al. 1996; White et al. 2007). In turn, feedback about alternatives that was given after people made their decision was shown to influence the amount of anticipated regret (Larrick 1993; Josephs et al. 1992; Ritov and Baron 1995). Moreover, people actively tried to avoid regret-eliciting feedback (Zeelenberg et al. 1996).

Larrick and Boles (1995) manipulated the feedback that participants received in a simulated job application negotiation and showed that people behaved more risk averse and therefore more cooperatively when they received feedback only after an impasse of the negotiation compared to when they received feedback regardless of the outcome. Our study design was based on these results, but was adapted to a different context and to a different procedure. The situation was a student loan negotiation rather than a job application negotiation. Participants did not interact with each other, but received answers from a standardized computer algorithm. Additionally, by switching to a computer based simulation, we were also able to observe the process of participants' offers in a controlled setting.

Our study showed that the effect of feedback on risk aversion and willingness to compromise in negotiations emerged in an even broader and more integrated way compared to the study of Larrick and Boles (1995). First, concerning the prerequisites of the negotiation, it was shown that participants who received feedback only after an impasse of the negotiation not only set a less ambitious reservation price, but also estimated a less ambitious BATNA in both the role of a bank advisor and the role of a client. Therefore, these participants set a lower negotiation goal from the beginning, and also expected the alternative offer to be lower (which in turn may have lowered the expectation about their own performance in the loan negotiation). This extends the findings of Larrick and Boles (1995) who found similar results for the reservation price, but could not show a consistent pattern for the estimation of the value of a BATNA in the context of a job application situation.

Second, concerning the process of the loan negotiation, it was shown that participants who received feedback only after an impasse started with more agreeable offers and were quicker to make concessions. By doing that, the higher willingness to compromise could also be seen throughout the whole process of the negotiation. This finding fits with the general tendency in the negotiation literature to consider both the process and the outcome of a negotiation as important dependent variables (Druckman

1994; Thompson et al. 2010), and is an approach that was not incorporated in the study of Larrick and Boles (1995).

Third, concerning the outcome of the negotiation, participants who received feedback only after an impasse finished the loan negotiation with a less ambitious final interest rate and therefore had a higher potential for agreement. In order to avoid feedback, they accepted a worse negotiation outcome for reaching an agreement with their negotiations partners. Although Larrick and Boles (1995) found a higher rate of agreement between negotiation partners, they could not show a difference in the negotiated last offer. However, in the current study, the effect was rather pronounced and extends the findings of Larrick and Boles (1995). Participants in the role of bank advisors would accept a 2.02% lower interest rate, and participants in the role of clients would have accepted a 1.67% higher interest rate on a loan of 100,000 euro. With that, we found out that ironically, the anticipated regret that the alternative offer would be worse seems to have led to increased willingness to accept less beneficial offers. Participants therefore accepted a bad offer because they wanted to avoid getting to know another (possibly) bad offer.

Moreover, these participants violated both their reservation price and their estimated value of a BATNA. They therefore accepted to miss their own target (i.e., their reservation price) in the negotiation—a pattern that was also shown by Larrick and Boles (1995). Beyond that, in the current study they also accepted negotiation of a worse outcome than what they thought the alternative would be (i.e., their estimated value of a BATNA) in order to reach an agreement and to avoid feedback.

With these findings, it could be shown that feedback has an extensive and comprehensive influence on behavior in loan negotiations. The findings of Larrick and Boles (1995) could be replicated despite important adaptations to the context and procedure. Moreover, the results held despite the fact that we conducted the study with Western-European rather than U.S. American students. Beyond that, we could even strengthen the findings of Larrick and Boles (1995) by enlarging the willingness to compromise to both the outcome and the procedure of a negotiation, and by finding several additional results that were not shown in the original study. Therefore, the reported effects are of substantial value for behavior in the context of loan negotiations.

Some limitations need to be considered. First, it might be argued that our results are based on an online negotiation, and not real interaction, as was operationalized by Larrick and Boles (1995). Therefore, it is unknown if these results will hold true for real-life loan negotiations. On the other hand, our design ensured strict controllability and anonymity, which allowed us to exclude interaction effects between the negotiation partners. In future studies, the change to a computer based simulation could be used even more extensively, e.g., by tracking and analyzing the detail process of a loan negotiation between two interaction partners, or by asking for reasons why a specific negotiation strategy is used. Given the high number of student loan defaults (Flint 1997), this might influence the strategy of bank advisors in negotiating higher interest rates. Second, there could be anticipated emotions other than regret that influence behavior in loan negotiations. Behavior in negotiations was shown to be influenced by a variety of emotions (for a review, see Barry and Oliver 1996). In the current study, anticipated regret was only manipulated indirectly through different types of feedback; in future studies, anticipated emotions should be measured directly,

for example using self-assessment measures. This will allow more exact statements which specific emotions have an influence on negotiation behavior. Finally, the sample selection of our study might be criticized. Recently, researchers have argued that students who volunteer in psychological experiments differ in some personality variables (Van Lange et al., in press), which may lower ecological validity. However, we consider economics students as potential future loan takers who have the relevant knowledge about loans to comprehend our experimental situation that included some technical expressions.

This study has implications for understanding loan negotiations, from the perspectives of both loan takers and bank advisors. Participants in the roles of loan takers and bank advisors showed higher risk aversion and higher willingness to compromise when expecting feedback only after an impasse. Therefore, they risk negotiating a less favorable outcome which in turn may have substantial financial and emotional consequences in real-life situations. By reaching a less ambitious outcome, loan negotiators risk a financial loss. By violating their own reservation prices and accepting offers that are worse than their estimated value of a BATNA, they risk being dissatisfied with their negotiation result in the long run. Besides that, it is well known that the non-fulfillment of goals is a source of discontent (for a review, see [Brendl and Higgins 1996](#)) and intention behavior inconsistency has been shown to induce regret ([Pieters and Zeelenberg 2005](#)). Therefore, loan takers and bank advisors may ironically risk feeling regret about their unfavorable outcome and about the violation of their goals, i.e., their reservation prices, while they were actually trying to reduce their post-decisional regret by avoiding feedback. Given the high number of students in debt ([Jones 2005](#)), the results are of special interest for this group. Avoidance of regret might therefore backfire on them.

In conclusion, anticipated regret can be a double-edged sword in loan negotiations. On one hand, it increases the chances for agreement. On the other hand, these chances come with accepting an outcome that is less favorable personally. The wish to avoid regret could lead to the ironic situation that the fear of a worse outside offer leads to acceptance of a worse offer. Therefore, both loan takers and bank advisors should be aware of the influence that expected feedback may have on their negotiation behavior. In real-life situations, both loan takers and bank advisors should not fall into the trap of accepting and closing a deal too early. In contrast, they should actively search for sufficient information about their alternatives either before they enter a loan negotiation or before they close the deal. Knowing the alternative offers will allow them to reduce the risk of being overly risk averse and will increase the chances of negotiating an outcome that will be satisfactory for them in the long run.

Acknowledgments We thank Filippo Cordero for helpful comments on this manuscript. This research was partly funded by a grant from the University of Vienna to the second author.

Appendix

See Table 5.

Table 5 Algorithm of the computer program

Role	Offer of the participant	Standardized answer from computer program
Bank advisor	Offer 1, 2, 3, 4 $\leq$ 2.5%	I accept your offer. Thank you for the conversation
	Offer 1 > 2.5%	I would like to point out that I have been a longstanding client of your bank, and propose an interest rate of 2.5%
	Offer 2 < offer 1	I would like to remind you that I also have a mortgage savings plan with your bank
	Offer 2 $\geq$ offer 1	I would like to remind you that, besides being a longstanding client of your bank, I also have a mortgage service plan with your bank
	Offer 3 < offer 2	Other banks listen better to the needs of their longstanding clients
	Offer 3 $\geq$ offer 2	Other bank give much better interest rates to their clients and listen better to the needs of their longstanding clients
	Offer 4 < offer 3	I am a bit disappointed from your offer
	Offer 4 $\geq$ offer 3	I do not think that (<i>offer 4</i>) is an appropriate offer, and I am a bit disappointed from your offer
	Offer 5 < 10.5%	I accept your offer. Thank you for the conversation
	Offer 5 $\geq$ 10.5%	I am sorry, but I have to reject your offer. This interest rate is too high for me. Thank you for the conversation
Client	Offer 1, 2, 3, 4 $\geq$ 10.5%	JRS bank accepts your offer. Thank you for the conversation
	Offer 1 < 10.5%	I would like to point out that you are a very new client in our bank; I offer you an interest rate of 10.5%
	Offer 2 > offer 1	I would like to remind you that you did not use any other services of our bank up to now
	Offer 2 $\leq$ offer 1	I would like to remind you that you are a very new client to our bank, and that you did not use any other services of our bank up to now
	Offer 3 > offer 2	Other banks do not listen to the needs of their clients
	Offer 3 $\leq$ offer 2	Other banks ask for much higher interest rates, and do not listen to the needs of their clients
	Offer 4 > offer 3	I am a bit disappointed from your offer
	Offer 4 $\leq$ offer 3	I do not think that (<i>offer 4</i>) is an appropriate offer, and I am a bit disappointed from your offer
	Offer 5 > 2.5%	JRS bank accepts your offer. Thank you for the conversation
	Offer 5 $\leq$ 2.5%	I am sorry, but I have to reject your offer. This interest rate is too low for me. Thank you for the conversation

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Article 3

Hahn, L. & Hoelzl, E. (under review). Is evaluation of loan products with different sequences of instalments associated with anticipated emotions and corresponding arguments? *Journal of Consumer Affairs*.

IS EVALUATION OF LOAN PRODUCTS WITH DIFFERENT SEQUENCES OF
INSTALLMENTS ASSOCIATED WITH ANTICIPATED EMOTIONS AND
CORRESPONDING ARGUMENTS?

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IS EVALUATION OF LOAN PRODUCTS WITH DIFFERENT SEQUENCES OF INSTALLMENTS ASSOCIATED WITH ANTICIPATED EMOTIONS AND CORRESPONDING ARGUMENTS?

ABSTRACT

Preferences for improving sequences have been shown in a variety of studies. Correspondingly, loan products with falling sequences of installments should be evaluated better than loan products with rising sequences of installments. Moreover, it has been suggested that this effect corresponds to anticipated emotions and arguments in favor of a loan product with an improving sequence. These ideas were tested in two scenario studies with consumer samples. As hypothesized, loan products with falling sequences of installments were evaluated better than products with rising sequences of installments. Moreover, this effect to some extent corresponds to anticipated emotions and arguments. These studies have practical implications for banks and consumers. Banks can use the finding that consumers prefer loan products with improving sequences of installments for marketing activities. Consumer education programs can strengthen the awareness of this preference for avoiding unsatisfactory decisions for consumers and debtors.

KEYWORDS

Anticipated emotions, evaluation of sequences, financial decision making, loan evaluation, preference for improvement

INTRODUCTION

Credit use in Western societies has increased dramatically in recent years (Girouard, Kennedy, and André 2006). In particular, student debt reached large proportions (O'Loughlin and Szmigin 2006), and problems related to consumer credit, such as compulsive buying or the feeling that one is expected to similar consumption as important others, have become widespread, particularly in younger generations (Roberts and Jones 2001; Sotiropoulos and D'Astous 2012). Additionally, an extensive number of different loan products are available to consumers. Given the empirical evidence that loan takers often have, without specific education, poor financial knowledge (e.g., Walstad, Rebeck, and MacDonald 2010; Warwick and Mansfield 2000), it seems probable that loan products are often not well understood and that the decision for or against a specific loan product is made based on insufficient information. This point is especially critical because credit decisions are far-reaching and have been shown to have severe consequences on a consumer's life (Brown, Taylor, and Price 2005; Hayhoe, Leach, and Turner 1999). To better understand the biases consumers have in their decisions on specific loan products and to be able to help consumers in choosing the best product for their needs, it is important to investigate how and why different loan products are evaluated.

Because loans can be viewed as sequences of installments that must be paid, the evaluation of loan products can be connected to the evaluation of sequences (Hoelzl, Kamleitner, and Kirchler 2011). Based on research on preferences for improvement (e.g., Ariely 1998; Hsee and Abelson 1991; Kahneman et al. 1993; Loewenstein and Sicherman 1991), newer studies have shown that loans with falling or constant sequences of installments are preferred over loans with rising sequences of installments (Hoelzl, Kamleitner, and Kirchler 2011).

Therefore, different sequences of installments might influence a consumer's evaluation of the loan product, which in turn has an impact on the decision to take up the loan.

In addition, preference for products has been shown to be influenced by the anticipated emotions that are associated with it (e.g., Simonson 1992). In understanding preferences for a specific loan product, it is therefore important to take into account product-related emotions.

The finding that loan products are evaluated differently according to their sequence of installments, even when the total amount of all installments is the same, is relevant for both banks and consumers. Banks should be aware of this effect and can improve their services by designing loan products that meet the consumers' preferences, which could result in better fits of products to clients' needs and higher closure rates. Consumers will likely benefit from products that will meet their expectations. Therefore, in our studies, we were interested in the evaluation of loan products with different sequences of installments and explored the anticipated emotions and arguments that were associated with these products.

Preference for Improvement in Financial Decision-Making

Standard economic theory suggests that utility is discounted over time (Samuelson 1937); therefore, people are assumed to want to enjoy pleasurable things quickly and to delay experiencing unpleasurable things. However, there are now a multitude of studies showing that people often prefer better events at the end of a sequence rather than at the beginning, as would be suggested by the discounted utility model. Such a pattern was termed *negative time preference* or *preference for improvement* (Loewenstein and Prelec 1991; 1993).

There are various examples of preferring a better ending. For example, studies on noise showed that participants who were asked to retrospectively evaluate a pattern of annoying sounds evaluated the patterns with increasing final trends as more annoying than patterns with decreasing final trends (Ariely and Zauberman 2000). Similarly, in a study on the evaluation of pain patterns, participants rated patterns with increasing pain intensities toward the end as more painful overall than patterns with decreasing pain intensities (Ariely 1998) and even preferred a longer duration of pain over a shorter one if the ending of the longer duration was better (Kahneman et al. 1993).

This preference for a better ending has also been found in financial decision making. In one classical study, participants showed a preference for increasing, rather than decreasing, incomes over time. When exposed to arguments in favor of present-value maximization, only some participants changed their preference, whereas the majority of participants continued to prefer increasing incomes (Loewenstein and Sicherman 1991). Similarly, in studies on received payments, participants preferred increasing received payments over constant ones (Schmitt and Kemper 1996), and participants retrospectively preferred sequences with a positive end, even when these sequences had higher total losses (Langer, Sarin, and Weber 2005). In another study, participants were differentiated according to their knowledge of concepts of present value. People with less knowledge on these concepts tended to be less impatient than people with high knowledge on present value concepts and therefore preferred improving sequences for several financial outcomes (Matsumoto, Peecher, and Rich 2000). Regarding loans, it has been found that people prefer a larger repayment at the beginning than at the end (Hassenzahl 2005). A more recent study found that loan products with falling or constant sequences of installments were preferred over loan products with rising sequences of installments, even when the interest conditions would have favored rising sequences (Hoelzl, Kamleitner, and Kirchler 2011).

Arguments for Preference for Improvement in Financial Products

In the context of loan decisions, both rising incomes and falling loan installments can be seen as *improving* sequences, whereas falling incomes and rising loan installments can be seen as *deteriorating* sequences. There are several explanations for why people prefer improving over deteriorating sequences. One of the earliest propositions suggested that people “savor” waiting for a desired good and derive additional utility from that anticipation and, conversely, “dread” an undesired good and derive additional disutility from that anxiety (Loewenstein 1987). Therefore, people try to postpone positive events in order to anticipate them longer. Later explanations also included loss aversion, as deteriorating sequences could

be seen as losses from one time period to the next (Loewenstein and Prelec 1991), and recency effects, as decision makers tended to place more weight on later periods when evaluating a sequence (Loewenstein and Prelec 1993; Varey and Kahneman 1992). Additionally, the norm of delayed gratification was a proposed explanation, as delaying gratification might be seen as mature behavior (Ross and Simonson 1991).

Read and Powell (2002) integrated these different explanations and examined arguments for money and health sequence preferences using think-aloud protocols. In their study, they clustered participants' arguments in favor of one sequence into four different categories: *Optimization* referred to the standard economic explanation of choosing a sequence due to higher present value or maximization of total utility. For example, arguments were allocated into this category when participants chose a money sequence in order to be able to save more money in the long run. *Constraint maximization* referred to participants' estimation that a sequence with a higher total value is difficult to manage due to motivational or cognitive limitations. For example, some participants reported difficulties in saving money due to limited self-control. They would therefore argue in favor of a money sequence that would help them manage their expenses. *Ideal distribution* referred to arguments that favored a sequence due to aspects of its distribution. For example, participants evaluated the distribution of income sequences as status-enhancing or motivating. The last category, *ideal consumption*, refers to arguments that favor a sequence because it fits the consumption needs of the decision maker. For example, participants argued for a sequence because they anticipated expenses at a specific time point and wished for money to be available at that time.

To summarize, there are a number of studies showing that people prefer improving or constant sequences over deteriorating ones, and there is also evidence that this is the case for loan products with different sequences of installments. In our studies, we seek to further

strengthen this evidence in the context of loans and to investigate the motivation behind this preference for improving sequences.

Anticipated Emotions in the Evaluation of Financial Products

According to the findings described above, financial products with improving sequences will be preferred over products with deteriorating sequences. One aspect that lies behind preference for a product is product-related emotions. Consumer decisions have been shown to be influenced by the anticipated emotions that are associated with products, e.g., anticipated regret (Simonson 1992), satisfaction (Shiv and Huber 2000) or positive emotions (Wiener et al. 2007). It could be shown that anticipated positive emotions have a broad influence on different aspects of consumer decisions, such as product preference (Shiv and Huber 2000), purchase timing and brand choice (Simonson 1992) or purchase intention and deciding to take out a loan (Pollai et al. 2011). These studies demonstrated the relevance of anticipated emotions for a broad range of products, such as technical equipment (Simonson 1992) or hedonic and utilitarian products (Pollai et al. 2011).

Given the evidence that consumer preferences and decisions are influenced by product-related anticipated emotions, we seek to explore whether a preference for loan products with improving sequences is connected to anticipated emotions related to these products.

Research Questions

In our study, we investigated people's preferences for loan products with different sequences. We sought to replicate the finding that people prefer a loan product with a falling sequence of installments to a loan product with a rising sequence of installments (Hoelzl, Kamleitner, and Kirchler 2011). Moreover, we wanted to explore possible differences in the anticipated emotions about three loan products and whether different arguments were favored for the three loan products.

STUDY 1

Study 1 examined the evaluation of loan products for an apartment with falling, constant or rising installments. Participants were given a scenario of an offer for a loan product with different patterns of installments and were then asked to evaluate the loan product. Moreover, we also assessed anticipated emotions about the loan product at years one, five, and 10. Our participants were a consumer sample.

Method

Participants

Participants were 121 consumers (72 females; 49 males). The median age was 27 years, and ages ranged from 18 to 71. Participants were approached in the largest shopping mile in Vienna, Austria. They received candy as incentive to participate in a short survey that would take no more than 10 minutes to complete.

Materials and procedure

Participants read a scenario about a loan decision, anticipated emotions about how they would feel over the course of the loan, gave evaluations of the loan product and rated its acceptability, and completed demographic questions.

The first part of the scenario was identical for all participants. They were asked to imagine themselves in the role of an Austrian employee, with a net income of 1,450 Euro per month (which is the average net income of Austrian employees, Österreichischer Rechnungshof 2008), who is about to buy an apartment. Because participants would still need a lump sum of 30,000 Euro to finance the apartment, they decided to talk to their bank advisor to get an offer for a loan. They would have to pay an amount of 600 Euro per month to repay the loan.

The second part of the scenario differed in the profile of the installments for the loan. Participants were randomly assigned to one of three loan products.

Loan product. Participants were told that the loan the bank advisor offered them had falling, constant or rising installments. In the case of falling installments, participants would

start with a monthly payment of 510 Euro, which would then be reduced by 40 Euro per month every year. In the case of constant installments, participants would have to pay a constant monthly rate of 330 Euro over a period of 10 years. In the case of rising installments, participants would start with a monthly payment of 150 Euro, which would then increase by 40 Euro per month every year. Therefore, the total amount to be repaid for all loan products was 39,600 Euro. All loan products were illustrated by a figure showing the pattern of installments over the whole period.

Anticipated emotions. Participants indicated their anticipated emotions about the loan product in the first, the fifth, and the 10th years of repayment. The instruction was to “Imagine that you are about to make the decision to accept the offer for the loan product. How do you think you would feel in the first [fifth; 10th] year when you think about the loan product?” To measure anticipated emotions, three subscales from the Consumption Emotion Set (Richins 1997) were used: “joy” with the items happy, pleased, and joyful; “contentment” with the items contented and fulfilled; and “worry” with the items nervous, worried and tense. Possible answers ranged from 1 (not at all) to 4 (very much). To control for order effects, we used two versions of the questionnaire: half of the participants started with the items on anticipated emotions in year one, the other half with year 10.

Evaluation. Participants evaluated the loan product using the Hedonic/Utilitarian scale (Voss, Spangenberg, and Grohmann 2003) with 10 semantic differential response items. Example items are “pleasant-unpleasant” for hedonic or “effective-ineffective” for utilitarian evaluations, answered on a seven-point scale. The instruction read, “Imagine that you are about to make the decision to accept the offer for the loan product. How do you think you would evaluate the loan product?” Participants were then asked how they would evaluate the loan product in general (“very positive-very negative”) and whether they would accept the loan offer (“certainly-certainly not”; both on a seven-point scale).

Results and Discussion

Preliminary Analysis

A principal component analysis was conducted for the 12 items related to evaluating the loan product. The analysis yielded a one-factor solution, explaining 44% of the variance. The items “exciting” and “thrilling” were excluded from further analyses because they loaded less than .40 on the extracted factor. The remaining 10 items were recoded and averaged into a scale “evaluation of loan product”, with higher values indicating a better evaluation. Cronbach’s α for this scale was .89.

Further principal component analyses were conducted for the eight items measuring anticipated emotions in the first, fifth and 10th years. At all three time points, the analyses yielded two-factor solutions, explaining 81% of the variance in year one, 75% of the variance in year five, and 79% of the variance in year 10. The five items loading higher than .40 on the first factor (happy, pleased, joyful, contented, and fulfilled) were averaged into a scale “positive emotions”, with Cronbach’s α between .89 and .93. The three items loading higher than .40 on the second factor (nervous, worried, and tense) were averaged into a scale “negative emotions”, with Cronbach’s α between .88 and .92.

Evaluation of Loan Product

To examine differences in the evaluations of the three loan products, an Analysis of Variance (ANOVA) was conducted with the loan product (falling vs. constant vs. rising) as the between-subject factor. The dependent variable was the evaluation of the loan product according to the items described above. As expected, the results showed a significant difference in the evaluation of the three loan products, $F(2, 118) = 6.81, p < .01, \eta_p^2 = .10$. As shown in the upper part of Table 1, the evaluation was better for the falling than for the rising loan product, $t(79) = 3.16, p < .01$, and better for the constant than for the rising loan product, $t(79) = 3.19, p < .01$. The difference between the constant and the falling loan products was not significant.

[Insert Table 1 about here]

Anticipated Emotions about the Loan Product

To explore differences in the anticipated emotions between the three loan products, a Multivariate Analysis of Variance (MANOVA) was conducted with the loan product type (falling vs. constant vs. rising) as the between-subject factor and six dependent variables on “positive emotions” and “negative emotions” at years one, five, and 10. The multivariate results showed a significant difference in anticipated emotions about the three loan products, $F(12, 228) = 2.57, p < .01, \eta_p^2 = .12$. As shown in the univariate results in Table 2 (on the right), there was a significant difference between the loan products in anticipated positive emotions at year five and in anticipated negative emotions at year one. Moreover, there was a marginally significant difference between the loan products in anticipated positive emotions at year 10 and in anticipated negative emotions at years five and 10.

[Insert Table 2 about here]

As shown in Table 2 (on the left), participants anticipated more positive emotions for a falling than for a rising loan product in year five, $t(79) = 2.66, p < .01$; differences between constant and falling and between constant and rising loan products were not significant. Unexpectedly, in year one, participants anticipated more negative emotions for a falling than for a constant loan product, $t(78) = -3.49, p < .01$, and for a rising than for a constant loan product, $t(79) = -3.00, p < .01$, although there was no significant difference between falling and rising loan products.

Discussion of Study 1 Results

The results show that the evaluation of loan products was better for falling and constant than for rising loan products. This result is consistent with previous findings (Hoelzl, Kamleitner, and Kirchler 2011).

The results on anticipated emotions about the three loan products showed a similar pattern for anticipated emotions in year five: participants anticipated more positive emotions for the falling than for the rising loan product. The results for anticipated positive emotions in

year 10 and for anticipated negative emotions in years five and 10 pointed in the same directions but were only marginally significant. However, the anticipated emotions in year one showed a rather inconsistent pattern: while there was no significant difference in positive emotions in year one, participants anticipated more negative emotions for a falling and a rising than for a constant loan product.

To generalize the main finding of more favorable evaluations of falling and constant than rising loan products, we conducted another study in which a different product was used. Moreover, we wanted to explore the inconsistent results of the anticipated emotions about the loan products. Because the perception of a loan offer may be linked to the different arguments people use when thinking about loans, we explored differences in the agreements of the arguments about the three loan products.

STUDY 2

Study 2 examined the evaluation of a loan product for a car, which is presumably a less valuable product than an apartment. Therefore, the repayment period was reduced to five years. As in study 1, we assessed hedonic and utilitarian evaluations and anticipated emotions about the loan product. Moreover, we included a list of arguments that could lie behind the participants' evaluation of the loan product. Our participants were again a consumer sample.

Method

Participants

Participants were 120 consumers (59 females; 61 males). The median age was 29 years, and ages ranged from 15 to 74. Participants were approached in the largest shopping mile in Vienna, Austria. They received candy as incentive to participate in a short survey that would take no more than 10 minutes to complete.

Materials and Procedure

Participants again read a scenario about a loan decision, anticipated how they would feel over the course of the loan, gave evaluations of the loan product and rated its

acceptability, and completed demographic questions. In addition to the questions from Study 1, participants also indicated different arguments for a loan product.

The first part of the scenario was again identical for all participants. They were asked to imagine themselves in the role of an Austrian employee with a net income of 1,450 Euro per month who is about to buy a car. They would still need a lump sum of 10,000 Euro to finance the car, and they would have 300 Euro per month available to repay the loan.

The second part of the scenario differed in the profile of the installments for the loan. Participants were randomly assigned to one of the three loan products.

Loan product. Participants were told that the loan product the bank advisor offered them had falling, constant or rising installments. In the case of falling installments, participants would start with a monthly payment of 250 Euro, which would then be reduced by 15 Euro per month every year. In the case of constant installments, participants would have to pay a constant monthly rate of 200 Euro over a period of five years. In the case of rising installments, participants would start with a monthly payment of 150 Euro, which would then be increased by 15 Euro per month every year. Therefore, the total amount to be repaid for all loan products was 12,000 Euro. All loan products were illustrated with a figure showing the pattern of installments over the whole period.

Anticipated emotions. Participants anticipated their emotions about the loan product in the first, the third, and the fifth years using the same eight items as in Study 1.

Evaluation. Participants evaluated the loan product on the same 12 items as in Study 1.

Arguments. To examine the evaluations of the loan products in more detail and to allow inferences on specific characteristics of the loan products, we provided 10 arguments that consisted of attractive characteristics of loan products in general. The items were based on the results of Read and Powell (2002) and included arguments adapted from the categories “ideal consumption”, “constraint maximization” and “optimization”. All items are shown in

Table 3 (left). The instruction was “How much do you agree with the following arguments about the loan product?” Possible answers ranged from 1 (not at all) to 7 (very much).

[Insert Table 3 about here]

Results and Discussion

Preliminary Analysis

As in Study 1, a principal component analysis showed that 10 of the 12 items evaluating the loan product loaded on one factor, explaining 38% of the variance. The items “exciting” and “thrilling” were again excluded from further analyses due to factor loadings less than .40. Cronbach’s α was .86 for the scale “evaluation of loan product” with the remaining 10 items.

Anticipated emotions also showed the same factor structure as in Study 1. At all three time points, the analyses yielded two-factor solutions, explaining 68% of the variance in year one, 63% of the variance in year three, and 69% of the variance in year five. Cronbach’s α for “positive emotions” was between .71 and .76; Cronbach’s α for “negative emotions” was between .72 and .81.

Evaluation of Loan Product

As in Study 1, an ANOVA was conducted with loan product (rising vs. constant vs. falling) as the between-subject factor and the dependent variable was evaluation of the loan product. The results again showed a significant difference in the evaluation of the three loan products, $F(2, 117) = 7.32, p < .01, \eta_p^2 = .11$. As shown in Table 1 (lower part), the evaluation was better for the falling than for the rising loan product, $t(80) = 3.12, p < .01$, and for the constant than for the rising loan product, $t(77) = 3.35, p < .01$. The difference between the constant and the falling loan product was not significant.

Anticipated Emotions About the Loan Product

As in Study 1, a MANOVA was conducted with loan product (rising vs. constant vs. falling) as the between-subject factor and six dependent variables, “positive emotions” and

“negative emotions”, at years one, three, and five to explore differences in anticipated emotions between the three loan products. Contrary to the previous results, there were no significant differences in anticipated emotions among the three loan products, $F(12, 226) = 0.75, p = .71, \eta_p^2 = .04$.

Arguments for Loan Product

To explore the differences in arguments among the three loan products, a MANOVA was conducted with loan product (rising vs. constant vs. falling) as the between-subject factor and agreement with the 10 arguments as the dependent variables. The multivariate results showed a significant difference in agreement with arguments for the three loan products, $F(20, 208) = 4.78, p < .01, \eta_p^2 = .32$. As shown in Table 3, there was a significant difference between the loan products for the arguments 1, 2, 5, 6, 7, and 8, as well as a marginally significant difference for arguments 4 and 9.

Participants agreed that the constant loan product was more *clear* than the falling or the rising loan products; all detailed results are shown in Table 3. Consistent with the results on the evaluation of the loan product, participants agreed that they *liked the pattern* of the falling and the constant loan products more than that of the rising loan product. They also agreed that the constant loan product had less *major changes* than the falling or the rising loan products. Moreover, participants agreed that the falling loan product more closely fit their expected *decreasing car value* than the constant or the rising loan products. They expected to *habituate more easily to the installments* of the falling or the constant loan products than to the installments of the rising loan product and agreed that, with the falling loan product, the *worst part would be over sooner* than with the constant or the rising loan products.

Moreover, there were marginally significant results in participants’ agreement that the falling loan product better fit their expected *habituation to the car* and provided a *higher level of safety* than the rising loan product.

Discussion of Study 2 Results

The results corroborated the findings of Study 1 and previous studies (Hoelzl, Kamleitner, and Kirchler 2011) in that evaluation was better for the falling and constant than for the rising loan product. However, contrary to Study 1, we did not find any differences in anticipated emotions between the three loan products.

Regarding the arguments, we found evidence for why the falling and constant loan products were evaluated more positively than the rising loan product. In addition to the fact that participants said they liked the pattern of installments for the falling and constant loan products more than the rising loan product, participants evaluated the falling loan product as fitting better to the decreasing car value. The falling and constant loan products were evaluated as the loan products with installments to which the participants habituated more easily. Moreover, the constant loan product was evaluated as clearer and provided less major changes than the other two. There was a tendency for participants to evaluate the falling loan product as better fitting their habituation to the car and to the loan product, which provides the highest level of safety; however, these findings were only marginally significant.

GENERAL DISCUSSION

These studies showed that people prefer sequences with a better ending when evaluating loan products; specifically, it was shown that the evaluations of loan products with falling or constant rates of installments were more positive than those with rising rates of installments. Moreover, this study is the first to show that this evaluation partly corresponds to anticipated emotions about these loan products and to several arguments associated with them.

These studies extend the findings from existing studies on the preference for improving sequences. Contrary to standard economic theory (Samuelson 1937), several authors proposed and empirically confirmed that people prefer sequences with a better ending, even if the present value was not maximized or the total value was less (Ariely 1998; Ariely and Zauberman 2000; Hsee and Abelson 1991; Kahneman et al. 1993). This preference for

improving sequences was also found in financial decision making (Hoelzl, Kamleitner, and Kirchler 2011; Langer, Sarin, and Weber 2005; Loewenstein and Sicherman 1991; Matsumoto, Peecher, and Rich 2000; Schmitt and Kemper 1996).

Our studies were designed based on these results and showed that loan products with falling or constant sequences of installments were evaluated more positively than loan products with rising sequences of installments. This result agrees with previous findings (Hoelzl, Kamleitner, and Kirchler 2011).

Furthermore, these studies explored which factors might influence the preferential evaluation of falling or constant over rising loan products. Based on the results that consumer decisions are often influenced by anticipated emotions associated with the product (Shiv and Huber 2000; Simonson 1992; Pollai et al. 2011; Wiener et al. 2007), it was shown that the improved evaluation of falling or constant loan products partly corresponds to anticipated emotions. However, this effect was not very pronounced. While in Study 1, we found higher positive emotions associated with the falling loan product at year five and a similar tendency for anticipated positive emotions in year 10 and anticipated negative emotions in years five and 10, these results could not be replicated in Study 2.

Although the two studies were designed very similarly, the “good” for the loan was changed from an apartment in Study 1 to a car in Study 2, which might have influenced the anticipated emotions about the loan products. Some studies showed that the type of product regulates the influence that anticipated emotions and cognitive evaluations have on consumer decisions (e.g., Kempf 1999). Therefore, it is possible that participants based their evaluations of the loan product for the good in Study 2 (car) on more cognitive dimensions and the evaluation of the loan product for the good in Study 1 (apartment) on more affective dimensions.

Another factor that is important in exploring the preference for falling and constant sequences is the existence of arguments in favor of a loan product. Read and Powell (2002)

proposed several arguments that corresponded to a better evaluation of improving sequences. We based our research on these results and found the first evidence that better evaluation of falling and constant loan products might be due to better fits with the participants' ideal consumption; specifically, participants evaluated the falling loan product as fitting the decreasing car value and expected to habituate more easily to the installments of the falling or constant loan products. Moreover, participants also argued in favor of the constant loan product due to arguments related to constraint maximization; they evaluated it as clearer and having fewer major changes. An additional argument favored the falling and constant loan products because participants liked their patterns more. There was also a tendency for participants to evaluate the falling loan product as fitting better with their habituation to the car and providing a higher level of safety.

Some limitations need to be considered. First, scenarios were used and participants were asked to imagine themselves in the position of an employee with a given salary. This approach could be seen as problematic because participants might have had problems identifying with the described person if their own life and work situations were different than the one described in the scenario. Therefore, the participants' answers might differ from real-life evaluations. However, we tried to explicitly adapt our scenario as closely as possible to the majority of Austrian employees: we used the average net income of Austrian employees as the described salary and described goods for the loan (car and apartment) that are easy to identify with and that many people have experience with. Together with our use of a non-student sample, we are confident that participants were able to immerse themselves in the scenario. Second, we explored participants' anticipated emotions about the loan products. In addition to the fact that our results showed some inconsistencies and should be strengthened in further studies, the results regarding anticipated emotions should be considered with care. Several studies showed that anticipated emotions might diverge from emotions actually experienced (for a review, see Wilson and Gilbert 2003). Therefore, in future studies, possible

differences between anticipated and experienced emotions should be taken into account to obtain a more complete picture of how product-related emotions develop over time. Lastly, in exploring arguments behind the preference for a better ending, we used a closed format with predetermined answers. Although we based our items on the results of Read and Powell (2002), additional arguments that were not assessed could be important. Therefore, an additional open format might be valuable in future studies.

Our studies show several implications for both banks and consumers. It was shown that consumers prefer loan products with improving over deteriorating sequences. Banks can use this knowledge to develop and sell products that meet this preference. In product presentations, marketing campaigns and advisory discussions, banks might benefit from highlighting the improving sequences of loan products to attract more clients. Moreover, aspects that lie behind this preference, such as better fit to decreasing car values or better habituation to the installments of loan products with falling sequences, might also be leveraged.

Because it has been shown that loan takers often have poor financial knowledge (e.g., Warwick and Mansfield 2000), efforts to better educate consumers and debtors should generally be intensified. As a part of consumer education programs and advisement, awareness of consumers' preferences for improvement can be strengthened. On the one hand, this would help consumers to actively search for products that meet their preferences and has a higher potential for consumer satisfaction. On the other hand, after becoming aware of their preferences, consumers might avoid intuitively choosing a more expensive product.

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TABLE 1

Studies 1 and 2: Evaluation of Three Loan Products

Dependent Variable	Loan Product		
	Falling	Constant	Rising
	<i>M (SD)</i>	<i>M(SD)</i>	<i>M(SD)</i>
Study 1: Evaluation	4.21 ^a (1.18)	4.16 ^a (1.02)	3.40 ^b (1.13)
Study 2: Evaluation	4.54 ^a (1.03)	4.59 ^a (0.96)	3.80 ^b (1.13)

Note: Values indicate evaluation from 1 = negative to 7 = positive. Within lines, means with different superscripts differ at $p < .05$

TABLE 2

Study 1: Anticipated Positive and Negative Emotions for Three Loan Products

	Loan Product			Univariate
	Falling	Constant	Rising	ANOVA
Dependent Variable	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>F</i> (2, 118) =
Positive Emotions Year 1	2.06 (0.87)	2.29 (1.01)	2.05 (0.94)	0.87, <i>p</i> = .43
Positive Emotions Year 5	2.28 ^a (0.69)	2.10 (0.81)	1.86 ^b (0.70)	3.21, <i>p</i> = .04
Positive Emotions Year 10	3.13 (0.75)	2.90 (0.97)	2.90 (0.88)	2.88, <i>p</i> = .06
Negative Emotions Year 1	2.74 ^a (0.80)	2.08 ^b (0.90)	2.70 ^a (0.96)	7.00, <i>p</i> < .01
Negative Emotions Year 5	2.23 (0.82)	2.33 (0.90)	2.58 (0.84)	2.37, <i>p</i> = .10
Negative Emotions Year 10	1.67 (0.85)	1.86 (1.02)	2.15 (0.92)	2.95, <i>p</i> = .06

Note: Values indicate anticipated emotions from 1 = not at all to 4 = very much. Within lines, means with different superscripts differ at *p* < .05

TABLE 3

Study 2: Arguments for Loan Products

Dependent Variable	Loan Product			Univariate
	Falling	Constant	Rising	ANOVA
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>F</i> (2, 112) =
1. The loan product is clear.	5.26 ^a (1.48)	6.14 ^b (1.55)	5.20 ^a (1.65)	3.98, <i>p</i> = .02
2. I like the pattern of the installments over time.	5.00 ^a (1.51)	5.00 ^a (1.65)	3.28 ^b (1.87)	13.67, <i>p</i> < .01
3. The loan product fits to my expected income.	4.61 (1.65)	4.46 (1.59)	3.98 (1.79)	1.51, <i>p</i> = .23
4. The loan product fits to my expectation that I will habituate to the car.	4.42 (1.41)	3.73 (1.77)	3.55 (1.88)	2.81, <i>p</i> = .06
5. There are no major changes in the loan burden over time.	3.63 ^a (1.51)	4.76 ^b (1.81)	3.35 ^a (1.81)	7.07, <i>p</i> < .01
6. The loan product fits to the fact that the value of the car diminishes over time.	4.08 ^a (1.79)	3.19 ^b (1.66)	3.15 ^b (1.81)	3.42, <i>p</i> = .04
7. The loan product fits to my expectation that I will habituate to the installments.	4.50 ^a (1.67)	4.70 ^a (1.70)	3.30 ^b (1.54)	8.38, <i>p</i> < .01
8. With this product, I have the feeling that the worst part is over soon.	4.58 ^a (1.63)	2.86 ^b (1.63)	2.58 ^b (1.68)	16.52, <i>p</i> < .01
9. The product promises a high level on security.	3.82 (1.54)	3.62 (1.62)	3.08 (1.53)	2.37, <i>p</i> = .10
10. The product fits to my tendency to keep current costs low.	3.47 (1.64)	3.70 (1.97)	4.00 (1.84)	0.80, <i>p</i> = .45

Note: Values indicate agreement to arguments from 1 = not at all to 7 = very much. Within lines, means with different superscripts differ at *p* < .05

Conference Contributions

Parts of the PhD thesis were presented on a number of conferences:

Hahn, L., Hoelzl, E. & Pollai, M. (2010). *The effect of payment type on consumption-related emotions*. IAREP/SABE/ICABEEP 2010 Conference, Cologne, Germany, September 5th – 8th 2010. [Talk]

Hoelzl, E., Hahn, L. & Masak, J. (2010). *Anticipated regret in negotiations on loan rates*. IAREP/SABE/ICABEEP 2010 Conference, Cologne, Germany, September 5th – 8th 2010. [Talk]

Hahn, L. & Hoelzl, E. (2009). *Choice of product variety and the appraisal of non-chosen alternatives at different points in time*. SPUDM 2009 Conference, Rovereto, Italy, August 23rd – 27th 2008. [Poster]

Hahn, L. & Hoelzl, E. (2008). *The role of emotional competences in forecasting of regret*. IAREP/SABE 2008 Conference, Rome, Italy, September 3rd – 6th 2008. [Talk]

Curriculum Vitae

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Publications

- Hahn, L.**, Hoelzl, E. & Pollai, M. (2013). The effect of payment type on product-related emotions: Evidence from an experimental study. *International Journal of Consumer Studies*, 37(1), 21-28.
- Pollai, M., Hoelzl, E., **Hahn, L.** & Hahn, A. (2011). The influence of anticipated emotions on consumer decisions: Examining the role of product type and belief in adaptation. *Zeitschrift für Psychologie/ Journal of Psychology*, 219(4), 238-245.
- Hoelzl, E., **Hahn, L.**, Pollai, M. & Masak, J. (in press). The effect of feedback on process and outcome of loan negotiations: Consequences on risk aversion and the willingness to compromise. *Group Decision & Negotiation*.
- Hahn, L.** & Hoelzl, E. (under review). Is evaluation of loan products with different sequences of instalments associated with anticipated emotions and corresponding arguments? *Journal of Consumer Affairs*.

Conference Contributions

- Hoelzl, E., Pollai, M., **Hahn, L.** & Hahn, A. (2011). *Affective forecasts and consumer decisions: Exploring moderating effects of product type and belief in adaptation*. SPUDM 23 Conference, Kingston upon Thames, UK, August 21st – 25th 2011. [Talk]
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