Why we choose, how we choose, what we choose: the influence of decision initiation motives on decision making
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Even though both research on behavioural decision making and research on motivation have been extensive, little research has focused on the influence that different types of motives may have on decision making. The main goal of this dissertation was to fill this gap. Increasing our knowledge about the types of motives that lead people to start deciding is valuable for two reasons. First, behavioural decision making research has increased its focus on decision avoidance, because it can lead to many problems such as pension gaps or career dissatisfaction (e.g., Iyengar et al., 2004; For an overview see Botti & Iyengar, 2004; also see Ministerie van Economische Zaken, 2007). It has been found that one of the main reasons for avoidance is that people simply lack the motivation to start deciding or are more motivated to do other tasks instead (Gati et al., 1996; Greenleaf & Lehmann, 1995). Knowing how to motivate people to start deciding is therefore a good first step in reducing the avoidance problem. Second, the little research that is available on the influence of motives on decision making suggests that it matters what type of motive leads people to start deciding. This research suggests that motivational types can differently influence both decision processes and outcomes. In order to motivate people in an optimal manner we thus need to know whether and how different types of motives might influence decision making.

Three lines of research were undertaken to examine whether and how different motivational types influence the decision process (Chapter 2), the types of decisions we make (Chapter 3), and how we subjectively value the decision outcome (Chapter 4). In the following I will first discuss the main theoretical conclusions of this dissertation, namely: Motivational types differently influence decision making, different types of motives interact in their influence on decision making, and the effects of motives depend on both situational aspects and individual differences. Next, I will discuss how the different findings can be implemented in governmental policies, decision counselling, and for marketing purposes. I will finish with several directions for future research.

**Theoretical Contributions**

**Motives Matter**

The most general conclusion to result from this dissertation is that
different types of motives that lead people to start deciding differently influence decision making. In three lines of research I found support for the idea that different types of motives lead to different decision processes (Chapter 2), different decisional outcomes (Chapter 3), and different valuation of the chosen outcome (Chapter 4).

In Chapter 2 I examined the influence of approach versus avoidance motives on the decision process. It was predicted that starting a decision process due to approach motives (e.g., receiving a reward) activates an approach mindset, which directs attention towards the decision process, thereby leading to more effort exertion, a broad mental scope, global processing and explorative thinking. Initiating a decision due to avoidance motives (e.g., avoiding a fine) on the other hand, was predicted to activate an avoidance mindset, which directs attention away from the decision process, resulting in less effort exertion, a narrow mental scope, local processing and more exploitative thinking. Indeed, results showed that initiating a decision process with approach motives leads to more effort exertion and a broader scope in decision making than starting the process with avoidance motives. This shows itself in more attribute-based processing (i.e., comparing different alternatives on an attribute) and the use of a larger consideration set (i.e., the number of alternatives taken into consideration during the comparison process).

In Chapter 3 I examined the influence of shopping motives on time in store and unplanned purchasing. A field study showed that people spend more time in the store when their necessity motive (i.e., perceiving the store visit as necessary) is weak and their anticipated enjoyment motive is strong (i.e., perceiving the store visit as enjoyable). Stronger anticipated enjoyment motives have generally been related to more browsing behavior and thus can be expected to lead to more time spent in the store. However, stronger necessity motives are associated with better self-control and a stricter focus on the necessity shopping goal, thereby limiting the time spent browsing. Indeed, time in store was especially high when strong anticipated enjoyment motives were combined with weak necessity motives. In addition to the findings regarding time, this study also showed that entering a store with a strong necessity motive combined with a weak anticipated enjoyment motive is related to more unplanned purchasing decisions than entering the store with a weak necessity motive combined with either a weak or a strong anticipated
enjoyment motive. The finding that unplanned purchasing was especially high with a strong necessity motive was explained by the fact that high perceived necessity activates an implemental mindset, resulting in less deliberation and more purchasing. Results showed that this was especially the case for people with a weak anticipated enjoyment motive. An explanation is that the implemental mindset resulting from high necessity leads people who also have a weak anticipated enjoyment motive to get unplanned items they think they might need in the future to avoid having to return to a store they do not enjoy going to.

Finally, in Chapter 4 I examined the influence of having a learning versus outcome focus whilst deciding on valuation of the chosen outcome. Here it was expected that higher epistemic needs better fit with a learning focus, because people with high epistemic needs prefer an environment in which they can get full knowledge and understanding of their surroundings (De Dreu et al., 2008; Kruglanski, 1989). Based on regulatory fit theory (Higgins, 2000; also see Avnet & Higgins, 2003; 2006; Camacho et al., 2003; Higgins, 2002, 2006; Higgins et al., 2008; Higgins, Idson, et al., 2003) this fit between epistemic needs and a learning focus was expected to increase valuation of positive outcomes through increased engagement in the decision task. Indeed, results showed that having epistemic needs fits with having a learning focus whilst deciding, such that focusing on learning will lead people with higher epistemic needs to value their chosen outcome more relative to focusing on the decision outcome.

These results all lead to the conclusion that different motivational types differently influence decision making. Furthermore, these results seem to generalize across research methods, populations, and different outcome variables. A well-known issue in behavioural decision making research is whether or not the conclusions have external validity. The research in this dissertation suggests that the one regarding motivational types does, since the influence of motivational types on decision making was found in both laboratory settings and a field setting. The three studies regarding approach and avoidance motives described in Chapter 2 were experimentally conducted in a controlled environment with the manipulation of motivational types (i.e., approach versus avoidance). The three studies on epistemic needs and decision focus described in Chapter 4 were quasi-experimental, since I
manipulated motivational types (i.e., learning vs. outcome) and measured individual differences (i.e., domain specific expertise, need for assessment, and need for cognition). Finally, the study on shopping motives described in Chapter 3 was conducted in a field setting without any manipulations. It thus appears that motivational types differently influence decision making both inside and outside of the lab.

A similar issue regards whether or not the conclusions can be generalized across different populations. Again, the research described here suggests it can. The studies were conducted using samples from different populations, namely students at both Dutch (Chapters 2 and 4) and American (Chapter 4) universities, and Dutch shoppers at both a Do It Yourself store and a gardening centre. This strongly suggests that the influence of motivational types on decision making is not limited to a particular subpopulation.

Finally, it is necessary to consider the issue of whether the influence of motivational types on decision making is limited to subjective experience, or also influences actual outcomes. Although some of the measures were subjective in nature, more objective indicators were also included. For example, in Studies 2.1 and 2.2 of Chapter 2 effort was only measured subjectively with a questionnaire (e.g., “To what extent did you gather information before deciding?”), but Study 2.3 added an unobtrusive objective measure, namely time spent on the task (also see Chapter 3, where time in store was measured), which correlated highly with the subjective measure and yielded similar results. Likewise, in Studies 4.1 and 4.2 of Chapter 4 valuation of the decision outcome was measured subjectively (e.g., “To what extent do you like/dislike the option you have chosen?”), but all studies reported in this chapter also used more direct measures of value, namely the maximum amount of money participants were willing to spend on a piece of the cheese they had selected. This monetary value measure was attained both by using a hypothetical situation (Studies 4.1 and 4.3) and a real offer situation with real monetary consequences (Studies 4.2 and 4.3). Again, all measures, both subjective and more direct, were highly correlated and yielded similar results. It is therefore possible to conclude that the influence of motivational types on decision making is noticeable for both subjective and objective outcomes.
Motives Can Interact

Another important conclusion stemming from the studies reported in this dissertation is that different types of motives can interact in their influence on decision making, as was found in the field study described in Chapter 3. This study examined the relationship between shopping motives and in-store decision making. In order to do so the study measured both perceived shopping necessity and anticipated enjoyment. Results showed that unplanned purchasing was not related to a single motive. Rather, it was related to a particular combination of motives. There was a positive relationship between the perceived necessity motive and unplanned purchasing, but only when the anticipated enjoyment motive was weak. Even though the results in this study were correlational in nature and samples were limited to only two stores, the explained variance by the combination of these motives was high. It is thus important to realize that different motivational types can potentially have a strong moderating effect on each other, and interesting effects might be missed or misread when other simultaneously active motives are left outside of consideration.

Which Types Should Be Preferred?

Finally, this dissertation shows that there is no such thing as one decision motive that always leads to the best subjective or objective outcomes, and thus should always be preferred above all others. Instead, the studies described in this dissertation support the idea that the type of motive that yields the best outcome depends on both situational aspects and individual differences. For example, the studies on approach versus avoidance motives in Chapter 2 show that approach motives lead to more effort exertion and a broader processing style than avoidance motives. However, as mentioned in the introduction, it is not clear whether more effort exertion always leads to higher quality decision outcomes (Waroquier et al., 2010; Weber & Johnson, 2009). Furthermore, although some decision situations will benefit from a broader processing style, there are situations in which a more narrow style should be preferred.

One example is making decisions under time pressure. Time pressure would lead decision makers with a broader processing style to run into difficulties, since they are unable to examine all the alternatives they want to
take into consideration. Although people with a narrower processing style might miss out on some good alternatives due to their narrow focus, under time pressure they would be better able to process all relevant information regarding the options they are taking into consideration, thereby making a better informed decision. Also, some decisions have a large number of alternatives that hardly differ from each other. Having a narrow focus that limits attention to the alternatives that do differ substantively increases the effectiveness of the effort the decision maker invests.

Regarding individual differences, the studies in Chapter 4 show that having stronger epistemic needs better fits a learning focus, which shows itself in higher valuation of the chosen outcome relative to having an outcome focus. This means that people with high epistemic needs will benefit more from having a learning focus than people with low or no epistemic needs. For this latter group having a learning focus could possibly even have negative effects on valuation.

**Practical Implications**

**Governments**

The studies described in this dissertation and the conclusions that can be drawn from them have several practical implications. For one, governments are often looking for ways to decrease decision avoidance by the general public. The governmental aims range from striving to get more people insured against better prices, to having more organ donors, increasing the number of people who continue education after high school, or reducing the number of people who are lacking a good pension plan (Iyengar et al., 2004; for an overview see Botti & Iyengar, 2004; also see Coördinatiegroep Orgaandonatie, 2008; Ministerie van Economische Zaken, 2007). Knowing what motivates people to start deciding is a good first step to increase decision making, but not the whole answer. In addition to striving to motivate more people, governments should be aware of the fact that the way in which they motivate people will have an impact on decision making. For example, if their aim is to have people consider a larger number of insurance companies in order to stimulate market competition and get better insurance against better prices, using an approach type motive should be preferred over using an avoidance
type motive. Emphasizing the benefits of getting (better) insurance would thus be a better way to motivate than emphasizing the costs of not being insured or sticking with your current insurance company. In addition, if the population governments are targeting is relatively new in the decisional field (e.g., the uninsured), then pointing out that this decision should be seen as a learning moment rather than an ultimate choice might be a good strategy, since epistemic needs are likely to be high.

The conclusions drawn in this dissertation have implications for another political issue, namely the issue of voting in democracies. For example, if a party’s main goal is trying to keep its voters rather than loosing them to other parties, a narrow focus is probably the better way to go. This party might therefore benefit more from emphasizing the negative effects of choosing one of the other parties, whereas if a party’s main goal is trying to get more people to become flexible and consider their party, they might be better off by emphasizing the benefits of choosing their own party.

Decision Counsellors

Another area that can benefit from the findings presented in this dissertation is counselling. Even though decision making means freedom and self-determination, some researchers are arguing that freedom of choice is not necessarily a good thing (Botti & Iyengar, 2004; Schwarz, 2000). More specific, with the increasing number of options available to us, many people are experiencing difficulties in deciding (e.g., Iyengar & Lepper, 2000; for an overview see Botti & Iyengar, 2004). Procrastination by delaying or putting off a task or decision is a significant problem for almost 50% of students (Day, Mensink, & O’Sullivan, 2000; Onwuegbuzie, 2000; Solomon & Rothblum, 1984), and over 95% wishes to reduce this behavior (O’Brien, 2002; for an overview on procrastination see Steel, 2007). Since counsellors are increasingly facing people who have difficulties when making decisions (e.g., Osipow, 1999), increasing knowledge about what motives lead people to start deciding can help counselors in giving advice. However, like governmental institutions, they should realize that knowledge about how to motivate alone is not enough. By gaining an understanding about how different motives can influence decision making, counselors can give better advice. For example, they can teach people with high epistemic needs to decrease their focus on outcomes, and focus
more on the process and learning instead. Also, the realization that motives can interact can help them pinpoint debilitating motives that are keeping people from deciding, or activate alternative motives that will facilitate decision making. For example, maximizers are generally very motivated to decide, but they want their choice to be perfect. These people thus have two decision motives. In this case the perfectionism motive can at times work as a debilitator when the optimal option is not easily located, and even lead to decreased satisfaction and increased regret after a choice has been made (e.g., Schwarz et al., 2002). In general, counselors can help indecisive people by strengthening their motive to choose (e.g., stressing the importance or benefits of choosing). However, if indecisiveness is caused by a perfectionism motive it might be more effective to stress that making an imperfect choice is better than making no choice at all, thereby not only strengthening their choice motive, but also weakening their perfectionism motive.

Marketing Purposes

Finally, most studies of the present dissertation were conducted in consumer settings. The conclusions they have generated can therefore be of great value to marketing departments. Marketers can adjust the way they motivate consumers to decide on buying their products, thereby influencing not only the likelihood of the consumer buying the product, but also his or her valuation of it. For example, the fact that epistemic needs fit well with a focus on learning, and that this fit can increase product valuation can be applied to the presentation of products or product categories for which epistemic needs are expected to be high. If a substantial group of the target consumer population feels they currently lack knowledge to make a good decision (e.g., special cheeses, extensive wine collections, but also “new” green products like energy saving cars or waterless washing machines), then putting a greater focus on the ability to learn something about the new product category can improve product valuation. Also, shops or internet stores could benefit by determining whether they fit more into the necessity store category or the fun shopping category, and present products accordingly. More specific, if a store is mostly visited out of necessity, it will probably increase unplanned purchasing more by making the items that people think they might need highly accessible, rather than those items people find nice but unnecessary.
CHAPTER 5

Future Directions

Although the research presented in this dissertation forms a first step in filling the knowledge gap regarding the influence of motivational types on decision making, several questions remain unanswered. In this final section I will therefore present some directions for future research. For one, even though the current research does theorize about the underlying processes involved in motivational influences on decision making, no direct proof of mediation by these processes has been presented. Also, all studies presented here were performed at one point in time (Chapters 2 and 4), or two points in time lying close together (i.e., the field study in Chapter 3). It would therefore be valuable to look at longitudinal effects. Finally, even though the studies in this dissertation supported the possibility of generalization of our findings over different populations, there are several other possible generalizations that could be fruitful to explore. In the following I will expand on each of these proposed directions.

Mediators

As mentioned in the discussion sections of the empirical chapters, the hypotheses regarding the influence of motivational types on decision making were generally supported. Still, although these hypotheses were all built on theories regarding underlying processes responsible for the found results, no direct evidence of mediation by these processes has been presented. Future research needs to test whether these effects of motivational types on decision making are thus actually caused by the proposed processes. One of the ideas underlying the hypotheses was that of different mindsets. It was proposed that different motivational types activate different cognitive foci, also referred to as mindsets, and that these different mindsets in turn influence decision making behavior. Mindsets affect our behavior by influencing the way we perceive our surroundings and the way in which we respond to them (Rhinesmith, 1993).

In Chapter 2 it was proposed that approach and avoidance motives would lead to an approach versus avoidance mindset. An approach mindset, in turn, was argued to lead to more effort exertion and broader processing than an avoidance mindset. In Chapter 3 two alternative sets of hypotheses were proposed. The first set proposed that a necessity motive would increase the
chance of making at least one purchase, and that making a purchase would lead to an implemental rather than a deliberative mindset. The implemental mindset, in turn, would lead to more unplanned purchasing. The second set proposed that a necessity motive would lead to a prevention focused mindset, whereas an enjoyment motive would lead to a promotion focused mindset. A prevention focused mindset would, in turn, lead to less browsing and a narrower focus than a promotion focused mindset, thereby resulting in less unplanned purchasing. Finally, in Chapter 4 it was proposed that presenting a decision as a learning possibility would activate a learning motivation, thereby leading to a learning focused mindset whereas presenting a decision as a possibility to attain a particular outcome would lead to an outcome motive and a subsequent outcome focused mindset. The learning mindset, in turn, was argued to better fit people with higher epistemic needs, and would therefore lead to higher valuation of the chosen outcome for people with higher epistemic needs relative to a mindset with an outcome focus.

Even though none of the results defused the idea of mindsets, there is no proof that mindsets were actually activated. In addition, even if mindsets were activated, it is necessary to examine whether these mindsets were responsible for the found effects, rather than merely being by-products. If results were due to mindsets then the activation of mindsets by something other than decision making motives (e.g., another task, subconscious priming) should lead to similar results. Future research could also focus on examining the capability of other processes, like affect or intrinsic motivation, causing similar effects.

Another process proposed to be responsible for some of our results is the process of engagement. In Chapter 4 it was argued that the fit between a learning focus and epistemic needs would lead to greater engagement in the decision task, and that this engagement would lead to higher valuation of the chosen option. Future research needs to examine whether this is truly the underlying process. There are indeed other processes that could explain the found results, an example being fluency effects (Labroo & Lee, 2006; Winkielman, Schwarz, Fazendeiro, & Reber, 2003). Fluency effects occur when more fluent processing by the brain leads to the experience of positive affect which in turn gets misattributed to the outcome of this fluent process. Based on fluency one could argue that a better fit perhaps leads to a more fluent
process resulting in a more positive experience of the decision process, and that this positive feeling could be misattributed to the chosen option, thereby increasing its judged value. In case of fluency, both negative and positive options should be valued more positively as the fit increases. In case of engagement, however, valuation of the chosen option should become more extreme, meaning that positive options should be valued more positively, but negative options should be valued more negatively.

**Longitudinal Effects**

Another issue in need of more research is that of longitudinal effects. All studies reported in this dissertation were conducted at one instance in time. Future research should look at how long the influence of motives on decision making remains active. If mindsets are really the active process responsible for the motivational influences, then motives attached to one task should be able to influence decision making in another through this activation of mindsets. Research should in this case examine over what distance in time or difference in type of task different motivational types could still influence decision making. Also, regarding the fit-effects, it is important to measure how long the valuation influence remains active. Do people actually keep on valuing the chosen option more, even after consumption? And are they also more satisfied with their chosen option in the long run?

**Broadening Our Scope**

Finally, the research in this dissertation has limited itself to a few motivational types, namely approach versus avoidance motives, enjoyment and necessity motives, and epistemic or learning motives. Future research could examine the influence of other types of motives, like achievement motives or different social motives. Also, if different motivational types really activate different mindsets, and mindsets are thus the main mediating process in these studies, then future research should look at the influence of different types of initiation motives on other behavior that can be influenced by mindsets. For example, research could look at the influence of initiation motives on performance on and outcomes of non-decision tasks, but also at factors such as attitude formation or attribution of behavior that take place during or short after execution of the task.
Concluding Remarks

This dissertation has answered the question whether different motivational types differently influence decision making, and has made a start in answering how they do. It presents new findings capable of improving our ability to motivate people to make decisions, and to do so in the right way. Even though this research has only scratched the surface of examining the different motivational types that can lead people to start deciding, it has already shown the broad potential influence of these types on decision making behavior. Based on the research presented in this dissertation we can already more accurately predict the way in which people make decisions, the outcomes that result from them, and valuation of the chosen option. Since decision making is vital to our well being through its facilitation of self-determination, it is not surprising that it has received a great deal of attention in the past. However, this dissertation shows that there are still avenues in need of further exploration. With this dissertation I hope to increase awareness that the influence of different types of initiation motives on decision making represents an interesting avenue to turn into.