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Sometimes it is not so bad to decide in a hurry: Influence of different levels of temporal opportunity on the elaboration of purchasing intention

The present study examines the impact of different levels of time pressure on the elaboration of purchase intention. Participants formed attitudes towards two stores and then indicate in which stores they would go shopping. Descriptions of the stores were experimentally constructed in order to indicate whether participants rely on an attribute-based or an attitude-based strategy when forming their purchase intention. Participants made their choices under time pressure (either 5, 9 or 15 seconds) or were given unlimited time to deliberate. Results show that in 5 second limit and unlimited time conditions, they rely more on an attitude-based decision strategy and chose the less optimal store. Under moderate time pressure (9 and 15 seconds), participants are able to use relevant knowledge about the stores and rely more on an attribute-based strategy. Results are discussed in light of the Unconscious Theory of Thought (Dijksterhuis & Nordgren, 2006).

Keywords: *Time pressure, deliberation, attitude-based strategy, attribute-based strategy behavioural decision making, purchasing intention*

Imagine that you want to buy a camera. However, since you are not an expert in photography, you do not have a precise idea of what kind of camera to buy. So, you decide to make your choice at a store. At the store though, you are overwhelmed by the wide range of cameras they offer. Consequently, because you are in a hurry, making a choice becomes complicated. In the end your are left with two choices. First, you can choose on the basis of the brand (i.e. choice based on your attitude towards the brand). Second, you can choose after comparing the different models on the basis of their respective features (i.e. choice based on the attributes). Since a camera is quite expensive, you decide that comparing attributes is more important in order to make the best choice. Nonetheless, because you are in a hurry, you quickly compare the different models on a small set of attributes and select one model. After paying, you wonder whether you made the right choice because you did not have time to evaluate all the attributes throughly. Consumer advisers, psychologists and lay people would say that, no you do not make the right choice because a comprehensive deliberation is considered essential for the best decision to be made. All would advise to think carefully when we face an important choice. The present paper deals with this issue and demonstrates that, careful step-by-step decision making does not necessarily lead to good decisions; and also that moderate time pressure can lead us to make wise choices.

Attitude as a disposition to respond with some degree of favourableness or unfavourableness to an object – whether physical (e.g. apple pie) or abstract (e.g. economic liberalism) – is considered to guide, predict and explain human behaviour. When we have to decide between two alternatives, we can rely on our attitudes towards the alternative or on their attributes. Temporal opportunity, i.e. the amount of time people have to deliberate has been identified as a key factor in the selection of one of these two strategies. Decision makers have all the time needed to deliberate or can be forced to decide under time pressure. Time pressure refers to the objective or subjective perceived limitation of the available time needed to consider information or to take a decision. 'Objective' because real events can constrain us and 'subjective' because we can feel pressured even without good reason. For example, increasing the amount of information to process has

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been shown to create the impression of time pressure by constraining the amount of perceived time available to make evaluations or decisions (Davidson, 1989). The present article deals with the influence of different levels of temporal opportunity (e.g. all the time to decide *vs.* strong *vs.* mild time pressure) on elicitation of attitude-based *vs.* attribute-based decision making during the elaboration of purchasing intention.

Temporal opportunity to deliberate and behavioural decision making

The MODE model (Fazio, 1990) is a dual model that has been explicitly developed to understand the attitude-to-behaviour link. In this model, temporal opportunity to deliberate is a key factor. This model posits that two cognitive processes underlie behavioural decision making. One is spontaneous, the other deliberative. Motivation and Opportunity are the DEterminants (MODE) of which of these two processes will be used. The *spontaneous attitude-based process* relies on the automatic activation of the attitude. Once activated, attitude operates like a filter, biases congruently the information processing and is the main information that is considered. This attitude-based strategy is supposed to occur mainly when opportunity and motivation to deliberate are lacking because it does not involve any deliberative reflection or reasoning (Fazio & Towles-Schwen, 1999). Because the decision is likely to be taken on the basis of the attitude, the probability to observe an attitude-consistent behaviour is high. Inversely, the *deliberative attribute-based process* implies the scrutinization of both the specific features of the considered alternatives and the characteristics of the situation. All available information are carefully considered and attitude becomes one piece of information among others. Hence, the probability to observe an attitude-consistent behaviour is low. This attribute-based strategy is considered to be an burdensome, time-consuming and cognitive capacity-demanding process in which all available information are evaluated, compared, weighed and integrated into a final preference (Sanbonmatsu & Fazio, 1990). Therefore, this strategy is assumed to occur when motivation to deliberate is high and when there is the temporal opportunity to deliberate. Opportunity is then a crucial factor in the MODE model because it will determine whether motivated efforts to deliberate are successful. Motivation in itself is not sufficient because time and cognitive resources are necessary to the deliberation to take place (Fazio & Towles-Schwen, 1999).

Sanbonmatsu and Fazio (1990) provided empirical data supporting this key role of time pressure in the elaboration of behavioural intention. In line with the assumptions of the MODE model (Fazio,1990), participants in the high motivation and participants in no time-pressure condition relied more on the attributes of the objects in competition to elaborate their intention (study 1). That is, they used more an attribute-based decision making process. By contrast, participants in the low motivation condition and in the time-pressure condition relied more on their attitude to elaborate their intention (study 1). That is, they used more an attitude-based strategy. Finally, participants in the high motivation and no time pressure condition favoured more an attribute-based strategy than any of the other conditions (study 1 and 2). Sanbonmatsu and Fazio (1990) suggested that these results evidence that when participants have both motivation and opportunity to think, they engage in an burdensome deliberation which leads them to elaborate their behavioural decision on the basis of the specific attributes and, that otherwise, they rely on their pre-existing attitudes.

The dichotomous effects of opportunity to deliberate on cognitive processing

Sanbonmatsu and Fazio's results (1990) are in line with previous theorizing about the effects of time pressure on information processing (Park, Iyer & Smith, 1989), where time pressure is assumed to restrict the ability to search for and process information, whereas no time pressure enables information to be processed properly. Therefore, opportunity is assumed to have dichotomous effects on cognitive activity: Time pressure elicits heuristic processing whereas no time pressure triggers systematic analytical step-by-step processing. This view has a direct consequence on the perceived quality of the final decision. When the quality of the decision is judged from a normative perspective, time pressure is considered to have a detrimental effect on the behavioural decision making by favouring the use of cognitive shortcuts that can lead to choose the less optimal alternative. For example, if we have to decide in hurry where to go and buy a camera, we can choose to go into our favourite shop, although its camera department is not the best one because our attitude appears to us as a ready and speedy tool for decision making.

Actually, this dichotomous view of temporal opportunity effects is commonly shared by other dual models even if they do not integrate time pressure as a factor in itself. For example, the heuristic-systematic dual-processing model (Chaiken, Liberman & Eagly, 1989) considers the available time to process information as the cognitive capacity, or the ability to process information. Then, time pressure pushes people to rely on heuristics cues (e.g. 'high price then good quality', 'experts are not wrong') to form their attitude (Chaiken *et al.*, 1989). Inversely, the temporal opportunity enables us to think carefully and to consider the features of a persuasive message like the strength of arguments (Chaiken *et al.*, 1989) and to correct the biases due to the activation of the attitude (Fazio & Towles-Schwen, 1999). In short, time pressure is so far assumed to favour behavioural decision making based on attitude-based strategy. By contrast, the opportunity to deliberate is assumed to favour a behavioural decision based on the features of the object, that is on an attribute-based strategy.

The linear effect of opportunity to deliberate information processing

The MODE model (Fazio, 1990), like all the other dual models, assumes that temporal opportunity to deliberate has a linear effect on the amount of information processed: The greater the opportunity, the more information considered. A direct consequence is that the amount of information processed is assumed to be positively correlated with quality and accuracy of the final intention, choice or attitude. Therefore, having the time to deliberate is assumed to lead to better decision making. As a consequence, time pressure by limiting the amount of information that can be processed is assumed to lead to a lesser quality decision. Previous studies support this detrimental effect of time pressure on decision and judgement (see Chaiken *et al.*, 1989; Fazio & Towles-Schwen, 1999).

We argue that this conclusion comes more from on how opportunity was so far operationalized than on the very effect of time pressure. To date, research in the framework of dual models has contrasted time pressure with no time pressure by giving participants respectively either 15 seconds or all the time they needed to make their choice. Surprisingly, 15 seconds appears to be the standard time limit for inducing time pressure. For example, in the domain of the attitude-to-behaviour relationship, Sanbonmatsu and Fazio (1990) used 15 seconds and Klauer and Stern (1992) used 12 seconds to induce time pressure. This operationalization of time pressure raises two remarks. First, time constraints are often selected arbitrarily (see also Ordóñez & Benson, 1997) and, second, contrasting only 15 seconds *vs.* all the time needed to deliberate prevents knowing what happens under more severe time pressure. Actually, 15 seconds is implicitly considered to be sufficient to induce time pressure and the observed effects are so far supposed to reflect those that could be obtained under more severe time constraints.

When time pressure improves decision making

Previous research tended to lead to the conclusion that time pressure has a detrimental effect on behavioural decision making because time constraints impair the ability to attend to the task. Time pressure by favouring the use of heuristics – like attitudes – and preventing information processing can push decision makers to chose the less optimal alternative. However, a growing body of research tends to moderate this negative view of time pressure effects.

Research in consumer psychology has shown that the use of heuristics under time pressure is not the only strategy that people can use to elaborate their choice. Three main kinds of strategies have been reported so far when time pressure is experienced (see for a review Edland & Svenson, 1993). The strategy of *acceleration* implies that the consumer works faster by spending less time on each attribute in order to be able to consider as much information as possible (Ben Zur & Breznitz, 1981). The strategy of *selection* consists of filtering information and focusing on the most important and meaningful attributes and in particular on negative information (Wrigth, 1974; Ben Zur & Breznitz, 1981; Svenson & Eland, 1987; Weenig & Maarleveld, 2002). For example, in a probabilistic inference task, Rieskamp and Hoffrage (1999) asked participants to select the company with the highest profits from four unnamed companies, described by several cues. Participants under high time pressure used more a selective strategy than participants under low time pressure. Moreover, participants spent more time on the important cues and the correlation between the time spent on each cue and the importance of cues was higher under time pressure than under low time pressure. Finally, the strategy of *alteration* of search pattern means that consumer switches from a compensatory to noncompensatory rules of decision (Payne, Bettman & Johnson, 1988; Svenson, Edland & Slovic, 1990). Consumers then simplify their decision making by use of heuristics cues like the 'brand-name' heuristic. Ben Zur and Breznitz (1981) found some evidence indicating a hierarchy between these three strategies. Acceleration is people's first reaction to time constraints. However, when this strategy appears to be unfruitful to cope with the situation, then people shift to a selection and finally if time pressure appears to be too severe, they move to an alteration strategy.

Moreover, Suri and Monroe (2003) showed that time pressure had a more complex pattern of effects on the elicitation of heuristic *vs.* systematic processing than the dichotomous pattern developed in the dual model. More precisely, they showed that participants in low motivation to deliberate condition are more influenced by a heuristic cue like the level of price when they are both low and highly time-constrained. Inversely, participants under the moderate time pressure condition are less influenced by the price level. Suri and Monroe (2003) suggest that when motivation is low, information is likely to be processed more heuristically under low and high time pressure, whereas information tended to be processed more systematically under moderate time pressure.

In summary, people can use more strategies to cope with time pressure than the one classically assumed in the dual model and can display great flexibility in choosing the adequate strategy. Second, moderate time pressure may push people to focus on a small set of relevant attributes and then may lead to accurate decision and severe time constraints can lead to the use of heuristic cues. An interesting direct derivation is that people under moderate time pressure may used an attribute-based strategy and people under severe time pressure may rely on an attitude-based strategy. To date, this assumption has not been directly tested.

When the opportunity to deliberate impairs decision

Classically, the opportunity to deliberate is assumed to increase the likelihood of reaching a better and more accurate decision because it allows the information to be processed (Fazion & Towles-Schwen, 1999). However, Wilson and colleagues (see for a review Wilson, Dunn, Kraft & Lisle, 1989) have repeatedly shown that introspection and thinking about one's attitude was disruptive and systematically lead to a not optimal choice. They argue that thinking brings to mind a sample of information that are not relevant and people compute a final evaluation on the basis of a biased set of information. Similarly, Dijksterhuis (2004) has also shown that deliberation impairs the quality of the decision and is not so efficient as is usually thought. For example, he exposed participants to complex decision problems (studies 1, 2) in which they had to choose between various alternatives. More precisely, participants were exposed to the descriptions of four apartments described with positive and negative attributes. One apartment is the more attractive with 8 positive, 4 negative and 3 neutral attributes, whereas the three others were depicted with 5 positive, 6 negative and 4 neutral attributes. Participants were divided into three conditions. In the immediate decision condition, participants had to indicate their decision immediately after being presented with the different alternatives. In the conscious thought condition, participants were instructed to think about their decision for 3 minutes before indicating it. Finally, in the unconscious thought condition, participants were prevented from thinking about the different alternatives for 3 minutes before reporting their choice. Across experiments, conscious thinking always led to the less optimal decision. Recently, Dijksterhuis and Nordgren (2006) proposed the Unconscious Theory of Thought (UTT) in which they suggested that conscious deliberation is not efficient in complex decision making because of the low capacity of consciousness and because conscious deliberation tends to push people to focus on irrelevant information and to lead to suboptimal weighting and finally because conscious thought is guided by expectancies and schemas. This latter point is of particular interest here because Dijksterhuis and Bos (2005, submitted and reported in Dijksterhuis & Nordgren, 2006) showed that participants led to think consciously applied their stereotypes more than participants prevented from thinking about them. Dijksterhuis and Nordgren (2006) argued that '*conscious thought leads to concentrate on the stereotype and the stereotype-congruent information thereby making the stereotype-incongruent information less accessible and harder to recall*'. Similarly, Giger and Pochwatko (in prep.) using material inspired by Sanbonmatsu and Fazio (1990), showed that participants in time pressure condition (i.e. 15 seconds) elaborated both their behavioural intention (study 1) and their effective behaviour (study 2) on the basis of an attribute-based strategy. Inversely, participants in the no time-pressure condition (i.e. all the time needed to deliberate) used an attitude-based strategy to elaborate their intention and their effective behaviour. The examination of recalled features of the stores supports the idea that time-pressured participants used a selection strategy by focusing on the most relevant attributes. Inversely, participants in the no time pressure condition report more information about the store with the more favourable attitude indicating attitude-congruent information processing. A direct derivation of Dijksterhuis' (2004) and Giger and Pochwatko (in prep.) results is that during complex decision making, the deliberation of people who have the opportunity to think can be guided by their attitude and then lead to attitude-based decision making and a less optimal choice.

To summarize, first, the opportunity to deliberate has been identified as a key factor in behavioural decision making. The MODE model (Fazio, 1990) assumes that time pressures elicit attitude-based decision strategy, whereas no time pressure triggers attribute-based decision strategy. Second, although a large body of results support this assumption, it has also been shown that time pressure may have a wider range of effects on decisions than those classically expected from the MODE model. Specifically, moderate time pressure may lead to an attribute-based decision and severe time pressure can lead to an attitude-based decision. Third, deliberation is not as efficient as it was thought to be and may lead to attitude-based decision making. Finally, manipulation of temporal opportunity usually contrasts 15 seconds *vs.* all the time needed to deliberate and little is known about the effect of more severe time constraints. Therefore, we propose to investigate the impact of different levels of time opportunity, namely 5, 9, and 15 seconds and all the time to deliberate, on the use of attitude-based *vs.* attribute-based strategies in the elaboration of purchasing intention.

Overview of the study

Participants are exposed to the description of the two stores used in Giger and Pochwatko (in prep.). Store XX is globally positively depicted (apart from its camera department), whereas store YY is globally negatively depicted (apart from its camera department). Choosing store XX indicates an attitude-based strategy because it has the more favourable attitude but the worst camera department. Inversely, choosing store YY indicates an attribute-based strategy because for choosing store YY participants must go through their unfavourable attitude and focus on specific features of the stores. After fulfilling a filler task, participants indicate which store they would visit to buy a camera. Participants have 5, 9, and 15 seconds or all the time they need to deliberate. First we assumed that participants under severe time pressure (i.e. 5 seconds) should rely more on an attitude-based decision strategy, because 5 seconds will prevent them processing information and they will use their attitude as a tool to help make the decision (see Ben Zur & Breznitz, 1981; Suri &

Monroe, 2003). Second, participants under moderate time pressure (i.e. 9 and 15 seconds) should rely more on an attribute-based strategy (see Suri & Monroe, 2003) and then to replicate the results obtained by Giger and Pochwatko (in prep.) in the 15-second condition. Moderate time pressure should force them to focus only on the relevant information (see Ben Zur & Breznitz, 1981). Third, participants in all the time to think condition should rely more on attitude-based decision making because their attitude will guide their deliberation (see Dijksterhuis & Bos, 2005) and then to replicate Giger and Pochwatko (in prep.) results.

Method

Design and participants

One hundred and twelve female and 25 male undergraduates (M_{age} = 22.47; SD = 4.95) from Poland (n = 76) and France (n = 61) were randomly assigned to a 4 (time pressure: 5 *vs.* 9 *vs.* 15 seconds *vs.* all the time needed) between participants' designs. Participants were run in group of three to six.

Evaluation of the target stores

Participants read the descriptions of two stores, called XX and YY. They were previously instructed that their task was to form a general evaluation towards each store. They were informed that the two stores were presented with 12 statements consigned in separate booklets, that they had 6 seconds to read each sentence, that they can move to the next the page only when they were instructed to do so and that they could not go back. Verbal instructions appeared on the first page of each booklet as a reminder. After reading the first booklet, participants were asked to report their attitude towards the depicted store on a 7-point scale ranging from (1) '*I have got a very unfavourable opinion about this store ...*' to (7) '*I have got a very favourable opinion about this store ...*'. Because attitude certainty has been shown to be a potential moderator of the attitude-behaviour consistency (Gross, Holtz & Miller, 1995), the participants rated the level of certainty of their attitude on a 7-point scale ranging from (1) '*I hold my opinion towards store ... as very uncertain*' to (7) '*I hold my opinion towards store ... as very certain*'. Then the participant had to mentally count down from 1233 in decrements of 4 each time for one minute and to write down the number they had attained when they were given the signal to stop. This task was aimed at clearing the working memory. Once done, the reading of the description of the second store began.

Descriptions of the two target stores are shaped as in Sanbonmatsu and Fazio (1990) and Dijkserhuis (2004). Store XX is presented as generally favourable: 8 statements are positive (e.g. 'Store XX's houseware department has the most innovating appliances of the time') and 4 statements are negative in which are included statements about the camera department (e.g. 'Store XX's camera department has no very innovating cameras'). Store YY is presented as globally unfavourable and is opposite store XX: 8 statements are negative (e.g. 'Store YY's houseware department does not have the most innovating appliances of the time') and 4 statements are positive including the camera department statements (e.g. 'Store XX's camera department has the most innovative cameras of the time'). Descriptions of the stores were subjected to a set of pre-tests. It was verified that store XX has a more favourable evaluation than store YY, that both descriptions do not generate ambivalent attitudes and that the large number of departments depicted, the brief 6 seconds per sentence reading time and the mental countdown task have prevented participants from forming specific attitudes towards departments (Sanbonmatsu & Fazio, 1990).

The filler task

Once the two stores had been assessed, participants had to fill out a set of questionnaires. The task lasted about 18 minutes.

Behavioural decision making: The store choice

Participants were provided with a two-page booklet. The cover sheet contained the instructions about the task. Participants were reminded of the instructions orally. Participants were instructed that on the next page they would have to answer a question by checking the option they prefer. In the no time pressure condition, participants were instructed that they had all the time they needed to read the question and answer it. On the second page, participants read the following question: '*Imagine that you need to buy a camera and you can go to one of the two stores previously presented. At which store would you go shopping?*

a. I would definitely go to XX store
b. I would probably go to XX store
c. I would probably go to YY store
d. I would definitely go to YY store

Preliminary analyses and manipulation check

Nine participants evaluated store YY as more favourable than store XX and as in Sanbonmatsu and Fazio (1990) they were ruled out of the analyses. There are no differences in choice according to gender or nationality (all $F < .034$ and $p > .56$).

Evaluation of the stores

Store XX is evaluated more favourably (M = 4.98; SD = 0.93) than store YY (M = 2.51; SD = 0.99), $t(127) = 22.49$, $p < .001$. Participants do not hold their attitude towards store XX with more certainty (M = 5.20; SD = 1.23) than their attitude towards store YY (M = 5.26; SD = 1.28), $t(127) = -0.40$, $p = .68$.

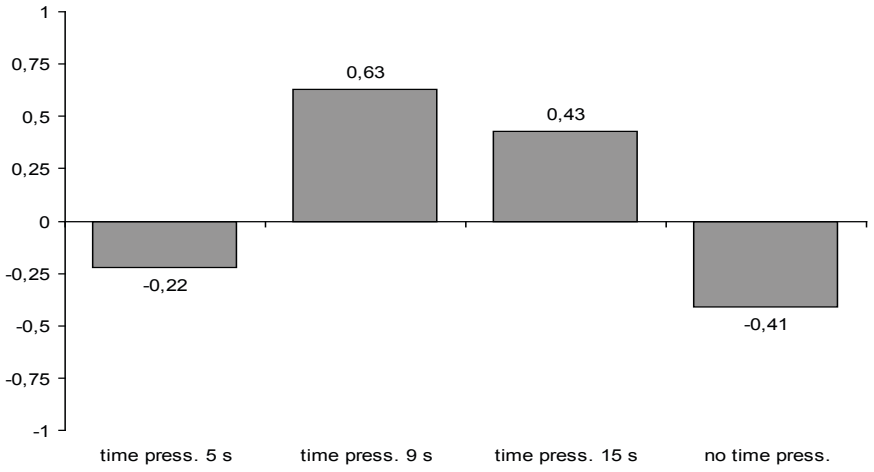

Figure 1. Mean store choice according to the different levels of opportunity to deliberate.
Note: The more the mean tends towards –2, the more store XX has been chosen. The more the mean tends towards +2, the more store YY has been chosen.

The choice of store

The different choices were coded as –2 for '*I would definitely shop for a camera at XX store*', –1 for 'I *would probably shop for a camera at XX store*', + 1 for '*I would probably shop for a camera at YY store*' and +2 for '*I would definitely shop for a camera at YY store*' (see Sanbonmatsu and Fazio, 1990). The unit of analysis is the mean camera shopping decision. The more the mean tends towards –2, the more store XX was chosen. Inversely, the more the mean tends towards +2, the more store YY was chosen. Choosing store XX reveals an attitude-based strategy, whereas choosing store YY reveals an attribute-based strategy.

A (time pressure: 5 *vs.* 9 *vs.* 15 seconds *vs.* all the time needed) analysis of variance (ANOVA) was performed on the participants' decisions. Figure 1 presents the means of decisions as function of time pressure. We assumed that participants under severe time pressure (5 s) and who have all the time to deliberate will chose more store XX, that is the store with the best global evaluation but with the worst camera department (i.e. attitude-based strategy). By contrast, participants under mild time pressure (9 and 15 seconds) were more likely to select store YY, that is the store with the worst global evaluation but with the best camera department (i.e. attribute-based strategy).

Results show a significant effect of time pressure in line with hypotheses, $F(1, 127) = 3.40$, $p < .05$. Participants in mild time pressure conditions (9 and 15 seconds) were more likely to choose store YY, that is on the basis of attributes stores, whereas participants who were severely time pressured or did not experience any pressure at all were more likely to chose store XX, that is on the basis of their attitudes. Differences in strategy are significant among conditions. Participants who had to chose in 15 seconds relied more on attribute-based strategy ($M = 0.43$; SD = 1.54) than participants who had no time limit ($M = –0.41$; SD = 1.33, $p < .05$). This pattern replicates the findings found by Giger and Pochwatko (in prep.). Moreover, significant differences were observed between the no time limit condition and the 9 second limit condition ($M = 0.63$; SD = 1.52, $p < .05$), and between the 9 second limit condition and the 5 second limit condition ($M = –0.22$; SD = 1.64, $p < .05$). The difference between 5 second and 15 second limit conditions is marginally significant ($p = .08$). No other differences were observed.

Discussion

The present study was aimed at investigating the impact of different levels of temporal opportunity on the use of attitude-based *vs.* attribute-based strategies in the elaboration of purchasing intention. As expected, the different levels of opportunity to deliberate have a differential impact on intention. Participants experiencing severe time pressure or having all the time needed to think rely more on attitude-based decision strategy. Inversely, participants under mild time pressure rely more on attribute-based strategy. The obtained curvilinear relationship supports the idea that behavioural decision making is more likely to be made on attitudes under low and high time pressure, whereas the decision is more likely to be taken on relevant attributes. These results echo Suri and Monroe's (2003) results which showed that information is processed more heuristically under low and high time pressure, whereas information is processed more systematically under moderate time pressure. Therefore, when they cope with time pressure, people can display more strategies and be more flexible in their strategies than it was classically assumed by dual models. In line with Wilson *et al.* (1989) and Dijksterhuis (2004), the present results also support the idea that deliberation can be maladaptive in making choice.

More globally, the present results can also be viewed as supporting the Unconscious Theory of Thought (UTT, Dijksterhuis and Nordgren, 2006). In short, the UTT assumes that (1) there are two modes of thought – one is unconscious, the other unconscious; (2) conscious thought is constrained by the low capacity of consciousness, whereas unconscious thought is not; (3) unconscious thought works 'bottom-up' or aschematically, whereas conscious thought works 'top-down' or schematically; (4) unconscious thought uses information in a relatively unbiased fashion; (5) unconscious thought is good at weighing the importance of attributes, whereas conscious thought leads to suboptimal weighting; (6) unconscious thought is divergent, whereas conscious thought and memory search are focused and convergent.

In the present study, the amount of information to be processed is relatively large (12 features for every store – the same amount as in Dijksterhuis, 2004). In the no time pressure condition, participants are encouraged to chose deliberately, and are given as much time as they need to make this decision and then they become conscious thinkers. Simultaneously, they do not have enough resources to analyse the alternatives because of the complexity of the descriptions. As in Dijksterhuis and Bos (2005), participants could have concentrated on their attitudes – the most accessible premises – and process information relying on their attitude (i.e. attitude-congruent information processing, see also Giger and Pochwatko, in prep.) leading to a less optimal choice. The same result is obtained in the immediate decision condition, where time pressure (5 seconds) does not allow any kind of thinking at all. Therefore, it can be reasonably assumed that participants decided on the basis of, again, the only accessible premise – their global attitudes – which leads to wrong choice.

When there is little time for deliberation, but the choice is not immediate (like in the 9 seconds and 15 second time limit conditions) participants access the knowledge about the stores and are able to work on it, presumably outside of awareness. Actually, mild time pressure could have favoured an unconscious thinking. Because unconscious thinking is not limited by working memory span, it weights the importance of attributes and is aschematical, divergent and works 'bottom-up', participants could have been able to find and focus on relevant information, and use it as the most important premise for their final choice. As a result of unconscious thinking, they disregarded the global attitude and focused on a small set of relevant attributes.

Whether participants focused consciously or not on attributes is questionable. The present study was not dedicated to address this question and further studies are need to check it. However, there is some evidence suggesting that information processing that occurs outside conscious awareness is more complex than just automatic response. In a modified implicit learning task, participants learned transition rules on one set of stimuli (generations of stimuli 0, 1 and 2), and had to apply them later, deciding which of two pairs of stimuli is built on the basis of these rules. They were able to point out the right pair not only when it was built on the basis of learned rules (generations 0, 1 and 2 – which is the classic effect of implicit learning described for example by Reber (1989), but also when it was built on the basis of extended rules (generations 3 and 4), never seen before, but inferable from simple rules. This pattern was obtained only if the time to make decision was limited (Balas, Sweklej, Pochwatko & Godlewska, 2006). These findings suggest that people under time pressure can rely on information that is not consciously represented and more broadly that unconsciousness is smarter than we thought before, probably due to lack of limitations that are characteristic for conscious thinking, e.g. working memory span.

To conclude, the present study first demonstrates that when we have to face with complex consumer decisions, engaging in an analytical step-by-step deliberation is not always the better strategy to make the right choice. Second, it is not so bad to decide in a hurry because moderate time pressure can help use to make a wise choice. More broadly, inversely to what consumer advisers, psychologists and lay people use to think, time pressure can be helpful in deciding by leading us to use a more flexible way of thinking. Finally, did you chose the good camera? May be yes.

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