

Loss Aversion Attenuates Under Time Pressure

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EXTENDED ABSTRACT

It is well-established that people under time pressure make decisions that are of inferior quality. But are there situations in which time pressure might improve decision quality? Prior research has suggested that stress – at least in moderation and in particular contexts – can be beneficial for decision-making. Moderate levels of arousal can improve performance in a variety of domains, as suggested by the Yerkes-Dodson law (Andrews and Farris 1972; Deffenbacher 1994; Yerkes and Dodson 1908). Similarly, contexts in which effortful information processing is attenuated or non-existent, such as unconscious thought, can produce accurate and rational decisions (Dijksterhuis and Nordgren 2006).

Drawing on three elements in prospect theory (reference dependence, loss aversion, diminishing sensitivity; Camerer 2000; Kahneman and Tversky 1979; Tversky and Kahneman 1991), we posit that loss aversion attenuates under time pressure – that is, people under time pressure no longer consider the hedonic impact of losses to be greater than that of gains, but roughly to be more equal, relative to those under no such constraints. This is because people consider time to be a resource, and the loss of time under time pressure is a loss of resource, placing them on the locally-convex portion of the value function. From this point, the hedonic impact of any further loss diminishes, relative to decisions from the status quo. In other words, loss aversion attenuates.

This proposition thus relies on the critical assumption that people consider time to be a resource. Thankfully, for our purposes, this assumption is well-supported – at least for Western cultures. That time is a resource that people can “lose” is consistent with the Protestant ethic that “time is money”. Some people may see time as a holder of endless possibilities and opportunities, but most others see time as something that they can not slow down, stop, or turn back. Time thus is a resource that people must structure, with a lack of structure meaning a loss of a valued resource with high opportunity costs (Bockstael, Strand, and Hannemann 1987; Casey, Vukina, and Danielson 1995; Cesario 1976; Larson 1993; Shaw 1992).

In Experiment 1, we find that the endowment affect – a typical demonstration of loss aversion – attenuates under time pressure. That is, although sellers typically place a higher valuation on a transaction item than buyers, we find that this disparity in valuation disappears under time pressure. Mediation analyses suggest that this is because sellers under time pressure place less of an emphasis on the positive aspects of the transaction item under time pressure. In Experiment 2, we find that people under time pressure are less risk-averse to gambles involving both a chance of winning and losing, relative to those under no such constraints.

Meanwhile, that loss aversion attenuates under time pressure assumes that people integrate the loss of time under time pressure with any subsequent loss. According to the hedonic editing rules and mental accounting (Thaler 1999; Thaler and Johnson 1990), people do not integrate losses when the losses occur on different days. Experiment 3 demonstrates that loss aversion attenuates under time pressure – but only when the loss of time under time pressure and the subsequent loss occurs on the same day.

In Experiment 4, we draw on the fact that people in Western cultures are more likely to be monochronic in that they see time as a resource that must be structured, relative to those in non-Western cultures that are more likely to be polychronic in that they see time

as continuous that does not require structure. Thus, if loss aversion attenuates under time pressure because people lose time as a resource under time pressure, this effect should be stronger for monochronic people than polychronic ones. Experiment 5 uses the Time Structure Questionnaire (Bond and Feather 1988) to show support for these propositions. We also note that both Experiments 3 and 4 demonstrate that loss aversion attenuates under time pressure because people perceive the hedonic impact of losses to be less under time pressure than under no such constraints, with no influence of time pressure on the hedonic impact of gains.

The four experiments provide support for our proposition that loss aversion attenuates under time pressure. This provides an intriguing implication that is counter-intuitive to everyday assumptions about the influence of time pressure. But using a value function-based explanation, we show that our effect is actually consistent with the tenets of prospect theory. We note that prior research has suggested that stress – at least in moderation and in particular contexts – can be beneficial for decision-making. Moderate levels of arousal can improve performance in a variety of domains, as suggested by the Yerkes-Dodson law (Andrews and Farris 1972; Deffenbacher 1994; Yerkes and Dodson 1908). Similarly, contexts in which effortful information processing is attenuated or non-existent, such as unconscious thought, can produce accurate and rational decisions (Dijksterhuis and Nordgren 2006). A cognitive load can also increase normative behaviours by disrupting the pursuit of biased self-relevant goals (Drolet and Luce 2004) or by reducing uncertainty to engender rationality (Goldsmith and Amir 2012). Thus, to the extent that time pressure is a form of stress, these findings suggest that it may improve decision quality at least in certain instances.

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