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The effect of construal level on risk-taking.

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Abstract

In a series of studies, we examined the influence of people's mind-set (construal level; CL: abstract vs. concrete) on their risk-taking behavior. We measured differences in CL (Study 1, CL as trait) and manipulated CL (Studies 1 to 5, CL as state) with different priming methods, which were unrelated to the dependent variable of risk-taking behavior (Studies 1, 3, 4, and 5: Balloon Analogue Risk Task; Study 2: Angling Risk Task). In all studies, abstract CL resulted in greater risk-taking compared to concrete CL, which led to lower risk-taking. Risky and safe game strategies mediated the CL effect on risk-taking. A concrete mind-set increased the safe game strategy whereas an abstract mind-set increased the risky game strategy. Furthermore, different potential mediators were explored (i.e., focus on payoffs and probabilities; prevention vs. promotion focus; attention to pros vs. cons; mood). A concrete mind-set increased prevention strategies as well as a negative mood when compared to an abstract mind-set. In turn an abstract mind-set increased attention to pros (of an action).

Keywords: Construal level; mind-set; risk-taking; risk-strategy; regulatory focus

Can differences in mind-set influence risk-taking behavior? Traditionally, risk-taking was assumed to be a stable personality trait in that people can be grouped as either risk-seeking vs. -avoiding (Hanoch, Johnson, & Wilke, 2006; Eysenck & Eysenck, 1977; Zuckerman & Kuhlman, 2000). This was then expanded to include other considerations (Johnson, Wilke, &Weber, 2004). Risk behavior is now more broadly described with foci on its multidimensional nature (e.g., Figner & Weber, 2011). A lot of research on Prospect Theory (Kahneman & Tversky, 1979) shows that gain vs. loss frames change the way people represent events, which in turn influences their preferences. Today, commonly observed influences on risk behavior include sub-traits such as sensation seeking (e.g., Zuckerman, 2007), self-monitoring (e.g., positive relationship between self-monitoring in the form of public performing, and risk-taking behavior; Bell, Schoenrock, & O'Neal, 2000), constructs like mood (e.g., De Vries, Holland, & Witteman, 2008; Yuen & Lee, 2003), or visceral influences (e.g., visceral cues that indicate proximity to desired objects can lead to decisions that are less sensitive to risk information; Ditto, Pizarro, Epstein, Jacobson, & MacDonald, 2006). These factors contribute to the common observation that one sometimes chooses to play it safe when faced with risky situations and other times not (Freeman & Muraven, 2010). Freeman and Muraven (2010) raised the question as to what generates people's inconsistency in risk-taking behavior?

This question is addressed here using a novel approach: i.e., construal level (CL) (Trope & Liberman, 2010). Based on construal level theory (CLT), we assume that risk-taking may be broadly influenced not only by personality traits, like sensation seeking, gain vs. loss frames, and situational factors, like affect, but also by people's cognitive mind-set (construal level).

Construal Level and Risk-Taking

The main idea of CLT is that the psychological distance ("the subjective experience that something is close or far away from self, here and now"; Trope & Liberman, 2010, p. 440) to a target (e.g., event or object) influences, and is influenced by, the level of mental construal. People apply a more abstract, high CL when judging a psychologically distal target. They also, however, assess more abstract targets to be psychologically more distal (Liberman, Sagristano, & Trope, 2002). Thus, the link between the mind-set and psychological distance can be described as bi-directional (e.g., Bar-Anan, Liberman, & Trope, 2006; Henderson, Wakslak, Fujita, & Rohrbach, 2011).

To apply CLT to risk-taking behaviour, we focus on the aspects of CLT that relate to desirability and feasibility concerns about future events (e.g., games of chance), which "correspond to the distinction between means and ends" (Liberman, & Trope, 1998, p. 7). CLT predicts that abstract (i.e., high-level) construals promote sensitivity to desirability considerations (i.e., the value of an end-state of an action: for instance amount of money gained) and that concrete (low-level) construals promote sensitivity to feasibility considerations (i.e., ease/difficulty of reaching the end-state; Sagristano, Trope, & Liberman, 2002). For example, desirability would represent getting a high grade in a college test whereas feasibility is the amount of work (e.g., time) one has to invest to get a good grade (Trope & Liberman, 1998). In terms of risk-taking, desirability would reflect the value of the outcome of a game of chance (e.g., payoff/amount of gain/loss) whereas feasibility is the probability of winning/loosing.

An important distinction between gain and loss domains in risk-taking must also be made. In the gain domain, abstract construals promote risk-taking because abstract

construals increase payoff sensitivity. Concrete construals, on the other hand, promote probability sensitivity. The opposite is true in the loss domain, where abstract construals promote risk aversion and concrete riskiness. Some of the first research on the influence of CL on risk preferences was by Sagristano and colleagues (2002) who investigated the impact of CL on preferences (probabilities vs. payoffs) in different games of chance by manipulating temporal distance (Studies 1-3: same day (near) vs. in two months (distant); Study 4: next day vs. in 2 months). As predicted by CLT, the results indicated that temporal distance increased the influence of outcomes (payoffs, desirability concerns) and decreased the influence of winning probabilities (feasibility concerns) on participants' preferences. Specifically, the authors showed that participants were willing to take more risks in distant-future gambles than in the near-future. Participants were willing to bid and risk losing more money for low-probability (of winning) but high-payoff gambles (risky choice), as opposed to high-probability but low-payoff gambles (non-risky choice) in the distant-future. Furthermore the authors showed that the inverse was true for near-future gambles, i.e. people are less willing to take risks in near-future gambles as participants showed a higher preference for gambles with high-probabilities but low-payoff as opposed to gambles with low-probabilities but high-payoff in near-future gambles. However, two questions remain unanswered:

Is the CL effect apparent when people adopt different mind-sets? This can be rephrased in line with the reciprocal character of CLT (bi-directional relationship of mind-set and psychological distance, Trope & Liberman, 2010): Will an abstract mind-set increase risk-taking behaviour compared to a concrete mind-set in the gain domain? Previous research revealed that increasing temporal distance is linked to more abstract thinking (Förster, Friedman, & Liberman, 2004). Therefore, we are particularly

interested in whether people who adopt a concrete mind-set (after CL manipulation) are less willing to take risks than abstract thinkers. The second question is: What are the underlying psychological mechanisms responsible for this effect? These are not yet fully clarified.

The influence of CL on risk-taking is of great significance: First, because people are continuously confronted with risky situations and changing mind-sets simultaneously (e.g., driving a car on an icy road while thinking of the next summer holiday or planning what to buy at the grocery store); Second, environmental circumstances can easily and unexpectedly change the mind-set, for example when people are confronted with an activity (e.g., mountaineering), they may have an increased focus on the goal (e.g., to get the top; desirability). This is abstract in terms of CLT, but if CL influences risk-taking, then the focus on details (e.g., the trail, weather; feasibility) would decrease the risk-taking propensity. Therefore, it is proposed that this effect could increase safety. We aimed to investigate whether CL influences risk-taking behavior and whether different mechanisms would mediate this effect.

Potential Mediating Mechanisms of the CL Effect

Despite much research on CLT, the cognitive or affective processes responsible for different representations of targets are still not well understood. However, different parameters can be linked with CL effects, for example regulatory focus or mood. The idea of more risk aversion when the mind-set is concrete (vs. abstract), is supported by the regulatory focus theory (RFT; Higgins, 1997). The RFT provides a useful framework for investigating people's risk tendencies (Zou, Scholer, & Higgins, 2014), by distinguishing between two goal attainment strategies: promotion focus and prevention focus (Crowe & Higgins, 1997). The promotion focus is characterized by

eager approach strategies to goal pursuit (attaining gains). Within the prevention focus, safety (avoiding losses) is emphasized (Förster & Higgins, 2005; Bryant & Dunford, 2008). Research has indicated that a low-level construal processing style fits the prevention focus on safety, and that high-level construal processing fits the promotion focus on advancement (Förster & Higgins, 2005; Pennington & Roese, 2003; Lee, Keller, & Sternthal, 2010). For instance, participants who were primed with a promotion focus categorized objects more broadly (and into fewer categories: a typical indicator for high-level CL) than participants primed with a prevention focus (Lee et al., 2010).

Furthermore, Förster and Higgins (2005) revealed that the regulatory focus systems are related to either global (abstract) or local (concrete) processing styles. By measuring reaction time, these authors showed that local processing fits a prevention focus, whereas global processing fits a promotion focus. Furthermore, there is substantial empirical evidence that supports the link between a promotion focus and an increased willingness to take risks compared to a prevention focus (Werth & Förster, 2007; Crowe & Higgins, 1997; Grant & Higgins, 2003). Werth and Förster (2007) summarized that people with a promotion focus show a more risky approach compared to those with a prevention focus. However, recent studies limit this assumption to gains frames. Prior research showed that people have a general tendency to be risk averse in the domain of gains (e.g., Blais & Weber, 2006). More recently, Zou, Scholer and Higgins (2014) demonstrated that this tendency is moderated by the strength of the promotion focus, and not by the strength of the prevention focus. Scholer, Zou, Fujita, Stroessner and Higgins (2010) revealed that in situations involving loss, it is prevention focus and not promotion focus that predicts increased risk-taking when risk-taking appears to be the only possibility of returning to the status quo. When there was no

option to return to the status quo, prevention focus predicts risk aversion (Scholer et al., 2010). Zou and colleagues (2014) showed that promotion motivated participants to choose risky options in the domain of gains (when the stock portfolio remained unchanged; i.e., when there was nothing to lose but something to win) in no-change or minimal-gain situations, but participants switched to more conservative behavior when they had just experienced a large gain. Thus, increased risk-taking seems not to be rigidly linked to promotion focus. The respective context (domain and amount of gain vs. loss) and experience has to be considered.

Since the current study aims at replicating the findings of Sagristano and colleagues (2002) with a focus on the bi-directional character of CLT (i.e., focusing on the mind-set: abstract vs. concrete), we are particularly interested in the impact of promotion and prevention focus on risk-taking in the domain of gains. We predict that a focus on prevention or promotion is a potential mediator, and that reluctant risk-taking, as an effect of low CL, should be mediated by a prevention focus. Conversely, intense risk-taking, as a result of high CL, should be mediated by a promotion focus, in the domain of gains.

Furthermore, people's focus on the outcome (payoff vs. loss) could be another potential mediator. It could be assumed that a more concrete mind-set, which accompanies detailed thinking, leads to more salience of potentially negative outcomes (i.e., no-gain). This is empirically supported by Eyal, Liberman, Trope, and Walther (2004) who showed that high construals are related to a focus on considerations in favor of an action (pros) as opposed to considerations against an action (cons; Spassova & Lee, 2008). Hence, the focus on pros or cons could be a potential mediator of the CL

effect, in that less risk-taking due to low CL is mediated by a focus on the cons whereas intense risk-taking due to high CL is mediated by a focus on the pros.

A further potential mediator could be a change in mood. However, research on the association of mood and CL is sketchy and ambiguous. Gasper and Clore (2002) showed that a positive mood is linked to a global (vs. local) processing style. Hence, a mood change when the mind-set is concrete (vs. abstract) could cause more risk aversion as people in a depressed mood are more conservative in risk-taking than those in an elated mood (Yuen & Lee, 2003). However, so far other attempts to show that differences in mood are related to people's CL have failed (Rim, Uleman, & Trope, 2009).

Hypotheses

In summary, research on the connection between different mind-sets (construal levels) and the desirability and feasibility of actions, as well as the focus on self-regulatory systems in goal attainment, suggests that CL has an impact on risk taking behavior. This relationship is expressed in the following formal hypothesis:

Hypothesis 1: Higher construal level will result in more risk-taking behavior than lower construal level.

Assuming that mind-set influences risk-taking behavior, then one aim is to investigate the potential mechanisms responsible for the CL effect. Sagristano et al. (2002) showed that participants who perceive a greater psychological distance have an increased preference for outcomes/payoffs over probabilities, compared to participants perceiving less psychological distance. Therefore, we aimed to explore whether a preference for probabilities or payoffs mediates the CL impact on risk-taking behavior. Furthermore, previous research showed that CL is linked to promotion and prevention

strategies (e.g., Förster & Higgins, 2005) and that in the domain of gains, promotion (vs. prevention) motivated participants to show increase risk-taking. In particular, a promotion focus seems to be linked to abstract thinking and a prevention focus to concrete thinking. Since these strategies are also linked to the willingness to take risks, we investigated whether they mediate the CL effect. Eyal et al. (2004) showed a relationship between CL and participants' focus on the pros vs. the cons of an action: participants found more pros and less cons for activities in the distant future. Finally, Gasper and Clore (2002) showed that a happy mood is linked to global processing and a sad mood to local processing.

We experimentally tested the impact of construal level on risk taking behavior in order to corroborate the notion that the level of mental construal influences risk taking. This was done via different priming methods and risk-taking tasks, and tests of the following potential mediators: attention to probabilities, outcomes, pros and cons of actions, as well as promotion and prevention strategies and mood.

Study 1

Study 1 investigated whether differences in CL of the mind-set (concrete vs. abstract), either as a trait or as a state, have an impact on risk-taking behavior. Participants' CL (trait) was measured, and after being primed in CL (state), they conducted a risk-taking task.

Method

Fifty-eight university students (54 female; age $M = 26.04$; $SD = 7.32$) were recruited on campus to take part in the study in exchange for course credit. A German version (Beckmann, 1993) of the Behavioral Identification Form (BIF; Vallacher & Wegner, 1989) was used to assess participants' tendency to either a concrete or abstract

mind-set (i.e., CL as trait). The BIF is a common instrument to measure abstraction (see Burgoon, Herderson, & Markman, 2013), and therefore, is suitable to measure CL. The ratio of abstract vs. concrete answers (higher values indicate more abstract thinking) was used as an indicator (cf. Luguri, Napir, & Dovidio, 2012) for abstract or concrete mind-sets (M = 0.51, SD = 0.17; Cronbach's α = .796).

Participants were randomly divided into two CL priming groups: abstract or concrete. CL manipulation was carried out via categorization priming (adapted from Fujita et al., 2006), which is a common CL priming method (see Burgoon et al., 2013), where participants are asked to name either a subordinate (*concrete CL*; e.g., rose) or a superordinate (*abstract CL*; e.g., plant) category for 30 different items (e.g., flower).

Risk behavior was measured using the Balloon Analogue Risk Task (BART; adapted from Lejuez et al., 2002), which has been shown to be a reliable measurement of risk-taking propensity (Lejuez, Aklin, Zvolensky, & Pedulla, 2003). Riskiness in the BART is positively correlated with risky behavior in real-life (e.g., gambling, alcohol and drug use; Chandler & Pronin, 2012; for an overview see, Hunt, Hopko, Bare, Lejuez, & Robinson, 2005). The aim of the BART is to inflate 30 computer-simulated balloons by clicking a "pump" button. With each click, a balloon inflates and the participant receives a virtual 5¢. The money accumulates until either that balloon bursts (too many pumps), which leads to a total loss of the accumulated money for that balloon, or the participant decides to finish the round and save accumulated money by pressing the *collect* button. The aim of the game is to collect as much money as possible. Since participants can only win or loose previously gained money, the BART can be regarded as a game in the domain of gains (vs. no gains). This is relevant to both replicating the findings of Sagristano and colleagues (2002), and in regard to the aspect

of CLT that predicts abstract construals (and promotion motivation) increases riskiness in the domain of gains.

Participants were informed in advance that the person with the highest score will be paid the winnings and that they will receive course credit for participation. Participants did not know how many pumps would burst a balloon. The number of pumps required to burst each of the 30 balloons was random but constant across participants.

Results and Discussion

Two different risk-taking indicators of the BART-data were calculated in order to determine whether a concrete mind-set leads to more risk aversion than an abstract mind-set. Following the recommendation of Lejuez et al. (2002), the mean number of pumps per balloon that did not burst and the total number of burst balloons were used as indicators of willingness to take risks. Furthermore, a risk index of the z-standardized means of both measures was calculated (c.f., Hiemer & Abele, 2012) as these indicators were sufficiently highly correlated, $r = .682$, $p < .001$.

Regression analysis with independent variables of CL as state (mindset contrast coded: abstract [-1] vs. concrete [1]), CL as trait (BIF, z-standardized) and the product of CL as trait and state were conducted to assess the respective predictive influence. A significant effect of CL as state on riskiness was evident on the indicators *mean clicks*, $B = -2.10$, $t(54) = -2.40$, $SE = 0.87$, $p = .019$, *bursts*, $B = -1.44$, $t(54) = -2.37$, $SE = 0.60$, $p = .021$, and the risk index, $B = -0.28$, $t(54) = -2.61$, $SE = 0.11$, $p = .012$, indicating that abstractly primed participants took more risks than those who adopted a concrete mind-set (see Table 1 for means). These results support Hypothesis 1, i.e., a higher construal level leads to more risk taking behavior than lower construal level.

**** Please insert Table 1 here ****

CL as trait only showed a significant influence on riskiness on the indicator *mean clicks*, $B = 2.05$, $t(54) = 2.32$, $SE = 0.88$, $p = .024$, indicating that more abstract thinking as a trait leads to more riskiness. However, there was no significant effect of CL as trait on the other two indicators, *p*s >. 122. Furthermore, there was no significant interaction of CL as trait and state on riskiness, *p*s > .390. Thus, we conclude that there might be an effect of CL as trait on riskiness but this effect should be investigated with a larger sample size in order to get convincing evidence.

Interestingly, there were no significant differences in the total amount of money that participants accumulated during the task (concrete priming: \$11.33, $SD = 4.61$; abstract: \$12.00, $SD = 3.30$), $p = .531$), although the way in which it was accumulated varied. It is important to note that the nature of the BART task produces similar amounts of gains for both risk-seeking and risk-avoiding participants, in that, those who take more risks gain more money per balloon, but have more total losses, whereas those who avoid risk have low gains per balloon, but constantly earn money. Overall both strategies (types of behavior) lead to similar winnings. However, the current study did not focus on the result (total gains) but on the means (risk-taking behavior). Study 2 further assessed the influence of CL as a state on risk-taking behavior by using different priming and risk task.

Study 2

Study 2 builds on Study 1, and aims to show that low state CL results in less risk-taking by using both a different priming method and a different risk-taking measurement. As in Study 1, participants worked on a risk-taking task after construal level priming.

Method

In Study 2, the priming task was a combination of a process vs. goal simulation task (based on Taylor, Pham, Rivkin, & Armor, 1998) and a "why/how" priming (adapted from Freitas, Gollwitzer, & Trope, 2004). Participants were either asked to think about the process (concrete) or goal (abstract) of an action (i.e., process: preparing for an exam vs. goal: achieving a good university degree) and to write down the thoughts that come to mind. Participants subsequently answered six *how* (concrete) or *why* (abstract) questions concerning different activities (e.g., taking part in a competition). Both procedures (simulation task and, in particular, the *why or how* task) are established tasks to manipulate CL (see Burgoon et al., 2013 for a review). Furthermore, the priming was pretested (N = 20). In the pretest, participants were randomly assigned to either concrete or abstract priming and then asked to give probability judgments of the six best differentiating items of Wakslak and Trope´s (2009) Studies 1 and 3. Participants rated the probability of occurrences of fictitious events (i.e., "Scott is deciding whether or not to join a cooking class. How likely is he to sign up?" p. 54) on a seven-step rating scale (1 = *very unlikely*, 7 = *very likely*). In line with previous research, results showed that participants' probability judgments within the concrete condition (M = 4.45; SD = 0.49) were significantly higher than those of the abstract group (M = 3.84; SD = 0.64), $t(18) = 2.275$, $p = .035$, $d = 1.08$. Results indicated that this priming, which is different from the priming used in our Study 1, also led to the adoption of different CL mind-sets.

Forty university students (26 female; age M = 23.02; SD = 3.03) were randomly assigned to either the abstract or concrete priming group. After priming, participants completed 30 rounds of the Angling Risk Task (ART, adapted from Pleskac, 2004). The

ART is a more recent measure of risk propensity and conforms to the general scheme of the BART. The aim of the ART is to win money by fishing in a virtual pond on a computer screen by clicking the *go fish* button (each click catches one fish). In each round, there are 64 fish in the pond: 63 *good* ones yielding 5¢ each and one *bad fish* leading (cf., balloon bursting) to a loss of the accumulated money in that round. Participants could neither see the fish nor know the probability of catching a *bad fish* (cloudy condition). Furthermore, they had the opportunity to stop each round and save the already gained money by clicking the *collect* button. Participants received course credit.

Results and Discussion

As in Study 1, two risk behavior indicators were calculated to test whether a concrete mind-set leads to more risk aversion than an abstract mind-set. The mean number of clicks within rounds in which no *bad fish* were caught was taken as the first indicator of willingness to take risk. The second was the total number of *bad fish caught*. Furthermore, a risk index of the z-standardized means of the indicators was calculated as the two measures were highly correlated, $r = .751$, $p < .001$.

Regression results showed that participants with an abstract mind-set took higher risks. This was indicated by a significant difference in the indicators *mean clicks*, $B = -4.88$, $t(38) = -2.36$, $SE = 2.06$, $p = .023$, *bad fish*, $B = -2.55$, $t(38) = -2.37$, $SE = 1.07$, $p = .023$, and the risk index, $B = -0.70$, $t(38) = -2.55$, $SE = 0.27$, $p = .015$ (see Table 1 for means). As in Study 1, the results of Study 2 confirmed Hypothesis 1, i.e. low level construals (concrete mind-set) lead to more risk aversion compared to high level construals (abstract mind-set).

The difference in gains was marginally significant between the concrete group (*M* = $17.57, *SD* = 3.98) and the abstract group (*M* = $19.90, *SD* = 4.36), *t*(38) = 1.76, *p* = .086, *d* = 0.56. As with the BART (Study 1), it is inherent to ART that different types of risk-taking behavior can lead to similar gains. Although results from Study 2 indicate that a higher risk taking approach within the ART is more advantageous, this is not necessarily the case, because taking higher risks can in turn also lead to higher losses. However, as in Study 1, Study 2 did not focus on the total gains but rather on the risk-taking behavior. Thus, in the following studies the amount of gained money was not of interest.

Study 3

In addition to replicating the finding that a concrete mind-set leads to less risk-taking behavior than an abstract mind-set, we aimed to explore the psychological mechanisms responsible. Sagristano et al. (2002) have shown that temporal distance influenced participants' preferences for outcomes and probabilities regarding risky choices. With the bi-directional character of CLT in mind, we explored risk-taking by different mind-sets. In particular, whether abstract thinking increases the focus on payoffs (i.e., the desirability of the outcome of games of chance - amount of gained money) and decreases the focus on probabilities (i.e., feasibility of attaining the payoff - likeliness to win) compared to concrete thinking. As in the previous studies, participants worked on a risk-taking task after construal level priming.

Method

Sixty-two university students (32 female; age *M* = 24.72; *SD* = 6.04) were randomly assigned to either the abstract or concrete priming group. As a priming task, participants answered the six *how* (concrete condition) or *why* (abstract condition)

questions of Study 2. After priming, participants completed 20 rounds of the BART. Afterwards participants answered short questions about potential mediators. In order to explore whether CL manipulation influences the focus on outcomes and probabilities, participants were then asked the following four self-formulated questions about their focus during the BART task: *how much did you focus on*: a) gains, b) losses, c) winning probability and d) loosing probability (e.g., *during the game I predominantly focused on gains*). The answer format was a rating scale (ranging from 1 = *no agreement* to 7 = *full agreement*).

The BART-screen normally shows an information box, which displays the sum of gained money, rounds played, and, if applicable, number of clicks since the last balloon burst. To investigate whether the CL effect is evident or even enhanced when this information is not provided, the info box on the screen was covered by a sheet of paper. The expectation was that participants would focus more on their estimated likelihood (the risk) that a balloon will burst, rather than assessing the burst risk probability from previous rounds. Without the info box, no descriptive information on past events was available except in participants' memory.

Results and Discussion

As in Study 1, the indicators *mean clicks* and number of *bursts* were used to calculate a risk index (correlation of *z* standardized indicators was sufficient; $r = .656$, $p < .001$). Regression results showed that abstract thinkers took more risks than concrete thinkers (marginally significant on the indicator *mean clicks*, $B = -3.05$, $t(60) = -1.93$, $SE = 1.57$, $p = .057$, and significantly on the indicators *bursts*, $B = -1.48$, $t(60) = -2.02$, $SE = 0.73$, $p = .047$, and the risk index, $B = -0.49$, $t(60) = -2.19$, $SE = 0.22$, $p = .032$; see Table 2 for means). Thus, as in Studies 1 and 2, Hypothesis 1 was confirmed.

**** Please insert Table 2 here ****

In relation to potential mediating mechanisms, regression results showed no significant CL effect on the focus on gains, losses, and probability of winning or losing, *p*s > .354 (see Table 2). However, participants paying more attention to gains (*z* standardized) generally showed more risk affinity (*mean clicks*, $B = 1.92$, $t(60) = 2.46$, $SE = 0.78$, $p = .017$; *bursts*, $B = 0.80$, $t(60) = 2.17$, $SE = 0.36$, $p = .033$; risk index, $B = 0.28$, $t(60) = 2.57$, $SE = 0.11$, $p = .013$). Thus, we cannot conclude that attention to payoffs or probabilities mediate the CL effect.

Covering or displaying the info box seemed to have no impact (i.e., ANOVA results of z standardized *mean clicks* of Study 1 and Study 3 showed no significant difference, $p = .635$). The reason for covering the box was that without any descriptive information on previous rounds, participants would have to rely on their own estimates of burst probabilities. However this did not seem to be the case. Findings of Study 3 showed that abstract (vs. concrete) thinking and paying more attention to winning increased risk-taking.

Study 3 did not replicate the findings of Sagristano et al. (2002) who showed that high CL (high psychological distance understood as abstract thinking) increases attention to payoffs and decreases attention to probabilities. One explanation could be the use of different CL manipulations: we used a more direct manipulation via priming, whereas Sagristano and colleagues used a more indirect method (i.e., temporal framing). Another possible explanation is the potential differences between real vs. intended behavior and past vs. future. We assessed participants' foci after they had completed a real task, and they commented on their own past behavior. Sagristano et al. measured participants' foci for intended future behavior. In the present research, we used self-

reports as a measure of participants' sensitivity to payoffs and probabilities. Perhaps participants did not have introspective access to their level of information processing. To summarize, it remains speculative as to whether, and indeed why, the different methods were responsible for the different outcomes. Future research is warranted to explore these effects in more detail. Overall, the question as to which psychological mechanisms mediate the CL effect on risk-taking remains unclear.

Study 4

An additional study was conducted to investigate the mediating mechanisms responsible for the CL effect on risk-taking. In this study, the participants' promotion and prevention foci as well as participants' preferences for explicit safe or risky game strategies were examined as potential mediators. As in Studies 1 and 3, participants worked on the BART after receiving CL priming.

Method

Fifty-seven university students (37 female; age $M = 23.05$; $SD = 3.43$) were randomly assigned to either the abstract or concrete priming group. Participants received course credit for participation. Procedure, CL manipulation and assessment of potential mediators were the same as in Study 3, except that the info box of the BART was visible again. Participants' prevention and promotion strategies were assessed with the regulatory focus questionnaire (RFQ, adopted from Higgins, Friedman, Harlow, Idson, Ayduk, & Taylor, 2001). Participants' preference for safe or risky game strategies were assessed with two items: *Strategy A: Few pumps, constant winnings of small amounts and little losses*; *Strategy B: Many pumps, high gains but also more losses*. Participants answered how much they applied each strategy on a seven step rating scale (1 = *not at all*; 7 = *totally*).

Results and Discussion

As in Study 1 and 3, the indicators *mean clicks* and number of *bursts* were used to calculate a risk index (correlation of *z* standardized indicators was sufficient; $r = .727$, $p < .001$) as an indication of risk propensity. Regression results showed that abstract thinkers took more risks than concrete thinkers, on the indicator *mean clicks*, $B = 5.01$, $t(55) = 2.63$, $SE = 1.90$, $p = .011$, and the risk index, $B = 0.50$, $t(55) = 2.09$, $SE = 0.23$, $p = .041$, but not on the indicator *bursts*, $B = 0.82$, $t(55) = 1.28$, $SE = 0.64$, $p = .205$ (see Table 3). Thus, Hypothesis 1 was essentially confirmed.

**** Please insert Table 3 here ****

Furthermore, results showed that concrete thinkers scored higher on the prevention focus (z standardized) compared to abstract thinkers, $B = -0.55$, $t(55) = -2.15$, $SE = 0.25$, $p = .036$ (see Table 3). However, results of linear regressions showed that the prevention focus did not influence risk-taking behavior (*mean clicks*, *bursts*, risk index, all *p*s > .466). Moreover, there was no difference on the promotion focus by different mind-sets, and no significant effect of promotion focus on riskiness, all *p*s > .117.

To explore the effect of game strategy on risk-taking, the difference value between strategy A and strategy B was calculated (i.e., *strategy A minus strategy B, z* standardized). Regression results showed a significant difference between CL groups on mean strategy difference, $B = -1.01$, $t(55) = -2.11$, $SE = 0.48$, $p = .039$ (see Table 3). The difference was significantly higher for concrete thinkers (indicating less risk preference) than for abstract thinkers.[1]

[1]Since separate analysis for strategy A and strategy B showed basically the same effect, we decided to only report the effect of the difference value of strategy A minus strategy B.

A mediation analysis (Baron & Kenny, 1986) was conducted to test whether the mean strategy difference carries the effect from CL (IV) to risk taking (DV). Without a potential mediator, *game strategy* regression results showed that the independent variable CL was significant on *mean clicks* and the risk index, but did not influence *bursts* (see Table 4).

**** Please insert Table 4 here ****

When controlling for the mediator *mean strategy difference,* the CL effect on *mean clicks* was reduced to marginal significance, while the regression weight for the mediator *mean strategy difference* remained significant. Furthermore, CL no longer predicted the risk index, but the regression weight of *mean strategy difference* was still significant. Thus, the variable *mean strategy difference* worked as a mediator for the CL effect on risk-taking behavior. We are well aware that considering game strategy as a kind of mediator could be criticized as the used measure was essentially participants' self-reports of the behavior they engaged in. Nonetheless, it is interesting that participants also showed differences, not only within their behavioral data, but also in the self-reports. Thus, we conclude that the CL effect might be consciously accessible. This is of great importance to the practical value of these research findings. The ability of people to be aware of their risk strategy may prove useful in increasing safety. We discuss this further in the General Discussion.

In summary, Study 4 confirmed the effect of CL on risk-taking behavior by showing that concrete thinkers were more risk averse than abstract thinkers. Even more important, results showed that game strategy can be seen as a kind of mediating mechanism for the CL effect on risk-taking. An abstract mind-set favored a risky game strategy, whereas a concrete mind-set favored a safe strategy. Results further showed

that preference for a safe strategy reduced risk-taking, whereas preference for a risky strategy increased risk-taking. Thus, it is proposed that CL triggers different game patterns leading to differences in handling risky situations.

Furthermore, results indicated that a concrete (vs. abstract) mind-set led to more preventive strategies. Results for both the promotion and prevention foci, however, failed to explain why concrete thinkers were less risk seeking than abstract thinkers. However, results indicated that although concrete thinkers paid more attention to prevention than abstract thinkers, they did not differ on promotion focus.

Study 5

Another look at participants' game strategies is warranted as both Study 4 and previous research (Higgins & Förster, 2005) indicated that a concrete mind-set is linked to preventive (safe) strategies. In Study 5, participants' preferences for explicit safe vs. risky game strategies were explored again. Furthermore, participants' foci on pros and cons of outcomes were also questioned in an attempt to identify mediating mechanisms of the CL effect. Eyal et al. (2004) showed that psychological distance (i.e., temporal distance) is linked to a focus on pros (of an action) over cons. Accordingly, abstract thinkers should focus more on the positive aspects of a risky task than concrete thinkers do.

Additionally, the impact of CL on participants' mood was assessed as another potential mediator. Gasper and Clore (2002) showed that a positive (vs. sad) mood is linked to a global (vs. local) processing style (which is assumed to be equivalent to an abstract mind-set). Furthermore, Yuen and Lee (2003) showed that a negative mood can be linked to less riskiness. Therefore, the effect of CL manipulation on mood changes and, in turn, risk-taking behavior was also explored. Furthermore, as the results of Study

3 do not agree with the findings of Sagristano et al. (2002), the effect of CL manipulation on participants' foci on outcomes versus probabilities was re-addressed with the aim of replicating (or otherwise) the results of Study 3. In doing so, we hoped to shed some light on this issue.

In order to explore the outlined questions, participants' mind-sets were primed before carrying out the BART. Afterwards, they were asked to what extent they pursued a safe or risky game strategy during the task. In addition, their focus on positive and negative aspects of the game, their current mood and their focus on payoffs (i.e., gains or losses) and on probabilities (i.e., winning or losing) was assessed. Again participants received course credit for participation.

Method

Sixty university students (52 female; age $M = 22.75$, $SD = 5.94$) were randomly assigned to either the abstract or concrete priming group. The same priming task as in Study 4 served as a CL manipulation. For measuring risk-taking behavior, participants played 30 rounds of the BART with an uncovered info box. Participants' preference for safe and risky game strategies was measured as in Study 4. Participants were also asked how much they agreed with the following two statements: A) *I predominantly focused on positive aspects during the game*; B) *I predominantly focused on negative aspects during the game,* so as to assess the influence of CL on focusing on pros over cons. The answers format was a rating scale (from 1 = *no agreement* to 7 = *full agreement*). As a measure for mood, participants then answered the German version of the positive affect negative affect schedule (PANAS; Grühn, Kotter-Grühn, & Röcke, 2010). The answer format was a rating scale (1 = *very little or no intensity* to 5 = *very strong*). Finally

participants answered the questions concerning focus on outcomes and probabilities used in Study 3.

Results and Discussion

Again, the *mean clicks* and number of *bursts* indicators were used as dependent variables for risk-taking to calculate a risk index (correlation of *z* standardized indicators was sufficient; $r = .803$, $p < .001$) as a further indicator for risk propensity. Regression results indicated that abstract thinkers took more risks than concrete thinkers. However, this effect was only significant for *mean clicks*, $B = 3.25$, $t(58) = 2.04$, $SE = 1.59$, $p = .046$, and marginally significant for the risk index, $B = 0.44$, $t(58) = 1.85$, $SE = 0.24$, $p = .068$. The *bursts* indicator showed no significant difference, $B = 1.33$, $t(58) = 1.48$, $SE = 0.90$, $p = .144$ (see Table 3 for means). Thus, Hypothesis 1 was essentially confirmed.

As in Study 4, a mediation analysis (Baron & Kenny, 1986) was calculated to test whether *mean strategy difference* mediated between CL (IV) and risk taking (DV). As in Study 4, regression results showed that game strategy mediated the CL effect on risk-taking (see Table 4).[2] Next, we investigated whether a focus on pros or cons mediated the CL effect on risk-taking. Regression results showed that abstract thinkers focused more on pros (i.e., positive aspects of the game) than concrete thinkers, $B = 0.86$, $t(58) = 2.47$, $SE = 0.35$, $p = .016$. However, further regression analyses revealed that a focus on pros did not predict risk-taking propensity (*mean clicks*: $B = 0.66$, $t(58) = 1.46$, $SE = 0.58$, $p = .256$; risk index: $B = 0.08$, $t(58) = 0.99$, $SE = 0.08$, $p = .323$). The participants' focus on cons (i.e., negative aspects of the game) indicated no difference between

[2] As in Study 4, separate analysis of strategy A and strategy B showed basically the same (mediating) effect. Therefore, we again decided to only report the mean difference value. Both results are provided in the supplementary material.

abstract and concrete thinkers. There was no relationship between a focus on cons and risk-taking, all *p*s > .526. Thus, we could find no support for the assumption that attention to pros or cons mediates the CL effect.

In further search of mediating mechanisms, we also explored the influence of participants' mood. Regression results showed no CL impact on the positive affect (PA), $p > .472$. However, abstract thinkers scored significantly less on the negative affect (NA) dimension than concrete thinkers, $B = -0.25$, $t(58) = -2.24$, $SE = 0.11$, $p = .029$, but neither NA nor PA predicted risk-taking (for *mean clicks* and risk index all *p*s > .430). Thus, the assumption as to whether mood is a mediator of the CL effect could not be supported.

Finally, we re-examined whether focus on payoffs (i.e., gains or losses) and probabilities (i.e., loosing or winning) mediated the CL effect on risk-taking behavior. Regression results showed no effect of CL on attention to gains, winning probability, losses, and loosing probability, *p*s > .271. Thus, again the findings of Sagristano et al. (2002) that temporal distance is associated with intended risk behavior could not be replicated in the context of mind-set manipulation on risk-taking behavior.

In summary, Study 5 supported the findings of Studies 1 to 4 in that CL affects risk-taking behavior. Abstract thinkers took more risks than concrete thinkers. Furthermore, Study 5 replicated the findings of Study 4 in that *game strategy* mediates the CL effect on risk-taking behavior. Abstract thinkers pursued a more risky game strategy whereas concrete thinkers preferred a safe game strategy. These strategies resulted in either more (abstract thinkers) or less (concrete thinkers) risky behavior. The interesting point here is that the CL manipulation not only influenced risk-taking, but participants were also aware of the kind of strategy they pursued. These results also

revealed that abstract thinkers focused more on the pros of an action than concrete thinkers. These findings are in line with results from Eyal et al. (2004) who showed that psychological distance is linked to a focus on pros over cons (i.e., the more distant future is associated with pros). However, there was no CL effect on participants' focus on the cons of the game. One explanation for this might lie in the operationalization of assessing participants' foci on pros and cons. In contrast to Eyal et al. (2004), we assessed participants' foci with two proximal questions concerning their explicit attention to positive and negative aspects. Perhaps there is a ceiling effect for the focus on cons due to social desirability. However, this is speculative and should be clarified in future research.

Furthermore, participants' focus on pros had no effect on risk-taking. Accordingly, a focus on pros did not mediate the CL effect on risk-taking. In relation to participants' mood, results showed that there was no CL effect on positive affect, but abstract thinkers showed a less negative affect than concrete thinkers. Gasper and Clore (2002) found that participants in a sad mood were less likely to focus on abstract targets and more likely to focus on concrete targets compared to participants in a happy mood. Rim et al. (2009) found no link between mood and CL. Our results add to these ambiguous findings by showing a relationship between CL and mood by using an inverse approach (i.e., influence of CL on mood) to that used by Gasper and Clore (2002). Interestingly, however, mood had no effect on riskiness and thus did not mediate the effect of CL on risk-taking.

General Discussion

The present research (Studies 1-5) reveals a consistent pattern of the influence of the mind-set (abstract vs. concrete) on risk-taking behavior. All studies showed that

concrete thinking decreases risk propensity compared to abstract thinking. Although, we could not directly replicate the findings of Sagristano and colleagues (2002), we could show that the bi-directional character of CLT also holds for risk-taking behavior. Sagristano and colleagues (2002) have shown that, by manipulating time-frames, low-level construal lead to less riskiness compared to high-level construals. We addressed this issue by manipulating participants' mind-sets (i.e., abstract vs. concrete) and could consistently show that a concrete mind-set leads to less riskiness than an abstract mind-set.

However, despite replicating some findings from previous research, most of our attempts to discover applicable mediating mechanisms failed. First, our CL manipulation did not influence participants' foci on payoffs and probabilities (Studies 3 and 5). Second, results showed that abstract thinkers scored lower on the prevention focus dimension than concrete thinkers (Study 4) but there was no difference in the promotion focus between CL groups. Third, our results showed that abstract thinkers focused more on pros (of an action) than concrete thinkers (Study 5), and there was no difference in the focus on cons between the CL groups. Fourth, concrete thinkers showed higher values on the negative affect dimension than abstract thinkers (Study 5), but there was no difference on the positive affect dimension between abstract and concrete thinkers. Fifth, only game strategy (measured as a self-report of the participants' behavior) mediated the effect of CL on riskiness, as abstract thinkers had a higher preference for risky strategy and a lower preference for safe strategy than concrete thinkers. Risky strategy was linked to more risk-taking and the safe strategy to less risk-taking. Finally, the present research indicates that CL considered as a trait (Study 1) has an effect on risk-taking. However, the influence of CL as a trait could only

be found on one out of three risk-taking indicators and should be further researched with larger sample sizes in order to make empirically satisfactory conclusions.

This research adds some important theoretical implications for CLT. First, it was shown that CLT is an important perspective in studying risk-taking. This is significant as CLT is not traditionally considered in risk research. Although risk has become a very popular area of research, the reasons why people show inconsistencies in their handling of risk are not yet clear. It is, however, generally agreed that "different *who*s react differently to different *when*s" (Figner & Weber, 2011, p. 211). Consequently, a particular focus on people's mind-sets is essential for a better understanding of how people handle risk. Thus, we believe that consideration of CL in future research would make a decisive contribution to risk research, and, in doing so, enhance existing insights. However, a better understanding of the mediating mechanisms responsible for CL effects is also necessary. We present this research as a contribution to this enterprise.

Second, our results give further empirical support to the reciprocal (bi-directional) character of CLT. CL effects are not limited to variation of psychological distance (i.e., temporal distance). They can also be found after a mind-set manipulation, and on the behavioral level. Our research shows that mind-set manipulation influences people's risk propensity. However, further research is needed to combine present and previous research findings into an integrated framework for a better understanding of risk-taking. For instance, future research should investigate whether the bi-directionality of CLT also holds for risk estimation. In particular, whether the CL effect on real risk-taking is mediated by changes in risk perception.

Furthermore, some practical implications emerge from our research. The results support the suggestion that a concrete thinking leads to more risk aversion relative to

abstract thinking. Therefore, it is assumed that CL is a very important aspect in safety considerations. In line with Chandler and Pronin (2012), who showed that thought speed influences risk-taking, we propose that interventions designed to boost concrete thinking would decrease people's tendency to put themselves at risk. These findings emphasize the trainability of risk-behavior skills, especially in contexts where less riskiness is more advantageous. This is, for example, of particular relevance to motorcyclists, and road traffic in general, sports (e.g., mountaineering) or decision-making in private and business contexts (e.g., taking out insurance). These findings could, for instance, be incorporated into road safety trainings with the aim of increasing safety by teaching road users how they can activate a concrete mind-set while driving. It would also be useful in high-risk sports to know whether one can increase safety by activating a concrete mind-set. As a concrete example, mountain guides could be given a guideline prompting them to carefully reconsider their situation in detail at certain intervals during the trip.

Limitations. Some limitations of the study have to be mentioned. First, we want to emphasize that our results of the CL effect on risk-taking behaviour are limited to the domain of gains (vs. no gains). Although the risk measures used in the present research correlate positively with risky behavior in real-life (Hunt et al., 2005), it has to be noted that both the BART and the ART are games in the domain of gains (because participants can only loose what they have previously won). Second, we did not succeed in defining mechanisms to explain the CL effect on risk-taking. The found mediator *game strategy* is not ideal since our measure was solely a self-report of the behavior participants had engaged in. It is interesting that participants are consciously aware of their chosen risk strategy, but game strategy is no real mediator in the proper sense. Third, we could not

replicate the findings of Sagristano and colleagues (2002) regarding participants' focus on payoffs and probabilities. This may well be down to the fact that we used a different measure (i.e., self-reports) and that participants had not introspective access to their level of information processing. Fourth, for future research (especially regarding investigation of CL as trait), larger sample sizes are recommended in order to increase study power.

Although we could only show that game strategy mediated the CL effect, we suggest that CL influences various variables, which separately or in combination result in more willingness to take risks (e.g., the interaction of more negative mood, higher need for prevention and less focus on pros of an action for concrete thinkers than for abstract). This presents another promising topic for future risk research, viz investigation of influences like *consideration of future consequences* (CFC; Strathman, Gleicher, Boninger, & Edwards, 1994), or learned carelessness (Frey & Schulz-Hardt, 1996), which appear to be promising constructs for a better understanding of how people handle risk. It is speculated that different mind-sets are related to, for instance, different levels of CFC and thus, influence risk propensity.

Furthermore, it would also be interesting to explore which daily activities or situational variables activate concrete or abstract mind-sets. Moreover, although the chosen instruments (i.e., BART and ART) seem to be reliable for measuring risk-taking propensity, the CL effect should also be investigated in real-life settings. Another argument for real-life settings in future studies is the desire to assess the mediators between the priming task and participants' behavior. We refrained from this favored method due to our specific experimental setting, in that participants were not familiar with the risk task (i.e., BART and ART). It would be interesting to investigate our

findings with a natural target group that is confronted with real risks (e.g., with drivers during road-safety training).

In conclusion, our results shed some light on the question as to why people differ in risk-taking. Apparently, differences in mind-set can influence risk-taking behavior. If less risk-taking is favorable or desired, then a concrete mind-set should be adopted. In contrast, an abstract mind-set is favored for more risk-taking. Given that different game strategies (safe vs. risky) mediated the CL effect on risk-taking, further research on cognitive influences could help understand and improve our behavior in risky situations.

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Table 1

CL (state) Effect on Risk-taking (Studies 1 and 2)

	Mind-set			
	Concrete (Study 1: *n* = 30) (Study 2: *n* = 20)		Abstract (Study 1: *n* = 28) (Study 2: *n* = 20)	
	M	*SD*	*M*	*SD*
Study 1				
Mean pumps	12.67	5.82	16.47	7.72
Bursted balloons	11.03	4.38	13.86	4.75
Risk index	-0.37	0.73	0.16	0.93
Study 2				
Mean clicks	19.60	7.28	24.49	5.70
Bad fish	10.90	3.99	13.45	2.66
Risk index	-0.25	1.02	0.44	0.67

Note. Concrete = Low CL mind-set priming group; Abstract = high CL mind-set group.

Table 2

CL (state) Effect on Risk-taking and Focus on Payoff and Probability (Study 3)

	Mind-set			
	Concrete (n = 31)		Abstract (n = 31)	
	M	*SD*	*M*	*SD*
Risk-taking				
Mean pumps	12.57	6.65	15.63	5.72
Bursted balloons	7.35	3.20	8.83	2.51
Risk index	-0.24	0.99	0.24	0.75
Attention to				
Gains	4.48	1.84	4.80	1.37
Winning probability	5.00	1.36	4.93	1.65
Losses	3.45	1.85	3.38	1.60
Loosing probability	3.67	1.73	4.09	1.79

Note. Concrete = Low CL mind-set priming group; Abstract = high CL mind-set group.

Table 3

CL (state) Effect on Risk-taking, Prevention and Promotion Focus, and Strategy in Study 4 and on Risk-taking, Strategy, Mood, Focus on Pros and Cons, and Attention to Payoffs and Probabilities in Study 5

	Mind-set			
	Concrete (Study 4: *n* = 28) (Study 5: *n* = 30)		Abstract (Study 4: *n* = 29) (Study 5: *n* = 30)	
	M	*SD*	*M*	*SD*
Study 4				
Risk-taking				
Mean pumps	10.67	4.83	15.68	8.86
Bursted balloons	7.00	2.21	7.82	2.63
Risk index	-0.25	0.72	0.24	1.04
Promotion focus	3.68	0.61	3.67	.057
Prevention focus	3.88	0.52	3.50	0.78
Strategy difference (*z* standardized)	0.25	3.26	-1.58	3.30
Study 5				
Risk-taking				
Mean pumps	12.61	4.15	15.86	7.66
Bursted balloons	12.00	3.18	13.33	3.76
Risk index	-0.22	0.72	0.22	1.09
Strategy difference (z standardized)	0.53	1.89	-0.47	1.72
Mood				
Positive affect	3.00	0.74	3.13	0.65

Negative affect	1.33	0.60	1.08	0.14
Attention to pros	4.50	1.54	5.37	1.12
Attention to cons	2.37	1.27	2.53	1.47
Attention to				
Gains	5.17	1.39	5.47	1.07
Winning probability	4.93	1.76	5.03	1.42
Losses	3.23	1.54	2.80	1.47
Loosing probability	3.53	1.65	3.47	1.97

Note. Concrete = Low CL mind-set priming group; Abstract = high CL mind-set group.

Table 4

Regression Results for CL and Strategy A minus B on Risk-taking (Studies 4 and 5)

	B	*t(df)*	*SE*	*p*
Study 4				
CL (IV) → mean clicks (DV)	5.01	2.63 (55)	1.90	.011
CL (IV) → bursts (DV)	0.82	1.28 (55)	0.64	.205
CL (IV) → risk index (DV)	0.50	2.09 (55)	0.23	.041
CL (IV) → SA-SB (mediator)	-1.01	-2.11 (55)	0.48	.039
CL and SA-SB → mean clicks				
CL	3.27	1.82 (54)	1.80	.074
SA-SB	-1.71	-3.52 (54)	0.48	.001
CL and SA-SB → risk index				
CL	-0.21	1.04 (54)	0.20	.299
SA-SB	-0.28	-4.98 (54)	0.05	.000
Study 5				
CL (IV) → mean clicks (DV)	3.25	2.04 (58)	1.95	.046
CL (IV) → bursts (DV)	1.33	1.48 (58)	0.90	.144
CL (IV) → risk index (DV)	0.44	1.85 (58)	0.24	.068
CL (IV) → SA-SB (mediator)	-1.00	-2.11 (56)	.0.47	.039
CL and SA-SB → mean clicks				
CL	1.36	0.93 (55)	1.46	.355
SA-SB	-1.81	-4.58 (55)	0.39	.000
CL and SA-SB → risk index				
CL	0.13	0.61 (55)	0.21	.539
SA-SB	-0.29	-5.05 (55)	0.05	.000

Note. CL = Construal level (abstract vs. concrete); SA-SB = Strategy difference (z standardized); IV = Dependent variable, DV = Dependent variable. Mediator analyses were only calculated for the variables *mean clicks* and risk index because CL had no significant impact on bursts.