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Abstract

We report three studies demonstrating the "lure of choice": people prefer options that permit further choices over those that do not, even when those choices cannot improve the ultimate outcome. In Studies 1 and 2, participants chose between two options: one solitary item, and a pair of items between which they would then make a further choice. Participants were lured by choice: any given item was more likely to be chosen when it was initially part of a choice pair than when it was offered on its own. We also demonstrate the lure of choice in a four door version of the Monty Hall problem, in which participants could either stick with their original choice or switch to one of two unopened doors. Participants were more likely to switch if they could first 'choose to choose' between the two unopened doors (without immediately specifying which) than if they had to choose one door straightaway. We conclude by discussing theoretical accounts for the lure of choice, and argue that it is due to a choice heuristic that is very reliable in the natural world, but much less so in a world created by marketers.

The Lure of Choice

In a changing or uncertain environment, the most robust choices will be those that keep our options open rather than those that 'burn our bridges'. The potential superiority of choice flexibility is clear in every aspect of life. For instance, if you want to go to a movie but are not yet sure which, it is better, all things being equal, to go to a multiplex rather than a single-screen cinema. Suppose, however, that the movie you most want to see is only playing at the single-screen cinema. Should you go to the multiplex? Common sense suggests that you should not. Likewise, suppose that your movie is playing at both cinemas, but the single-screen cinema offers a better picture and a quieter audience. Again, it seems that you should go to the single-screen cinema. Is it possible, however, that you might nonetheless be attracted to the multiplicity of choices at the multiplex, even though you will only see one movie that trip, and it might be inferior to the one you could have had if you had gone somewhere else? This situation is examined in this paper, which addresses the question of whether the presence of choice can *lure* us into choosing in a way that we otherwise might not.

Some research in animals suggests that organisms are attracted to choice-qua-choice (see Catania, 1980, for a review). In the first such study, Voss and Homzie (1970) studied rats given a choice between two paths that ultimately led to the same food reward. One path was a direct line to the food, whereas another led to a choice between subpaths that all led to the food. Virtually all of the rats took the choice route. Catania (1975), Catania and Sagvolden (1980), and Ono (2000) all replicated this preference pattern in pigeons. The pigeons first chose to peck one of two *initial* response keys: the *no-choice* key led to a single key being lit, which they then pecked to receive a reward; the *choice* key led to *two* keys being lit, either of which could be pecked for a reward. Although the reward was the same regardless of which initial key had been pecked, the pigeons were more likely to peck the choice key.

Suzuki (1999) observed a similar attraction to choice in primates, and found that the attractiveness of choice depended on what the options were. Monkeys chose between a *no-choice* and a *three-choice* alternative. In one group, two options in the three-choice alternative were identical to the no-choice option and one was worse, while in a second group one option was identical and two were worse. Choice was preferred to no-choice in the first (two identical) condition, but not in the second (two worse) condition. Hence the monkeys did like choice, but only when most of the options were pretty good. In the only previous studies done with humans, Suzuki (1997; 2000) found that people were more likely to take a choice alternative when all of the options it led to were equal to (or greater than) the no-choice option.

One characteristic of these studies is that at least one option in the multiple-choice set was identical to that in the no-choice set. By opting for the choice alternative, therefore, the participants, whether animals or humans, never ended up with a different (and possibly suboptimal) alternative. To return to the cinema multiplex example, it is as if both the multiplex and the single-screen cinema were showing your favorite movie and both offered the same polite audience and large screen. Although you might not be sure what else the multiplex has to offer, it would do no harm (and might be beneficial) to choose it. These studies show that if an animal is offered a choice between A and {A, A}, where the curly brackets embrace a set of items offered as a choice, they are more likely to take {A, A} initially, and then choose A.

There is no harm in selecting a path that offers more choice, as long as this leads to the best possible outcome. An attraction to choice may not, however, be entirely benign. If we are always more likely to choose a choice over a no-choice path, then there will certainly be occasions when we choose the choice path but the no-choice path would have been better. We use the term *lure of choice* to describe situations where having a choice can change the likelihood that we will end up with a given option. To show what we mean, imagine a choice between A, B and C. If the likelihood that you will choose A when offered an initial choice between {A, B} and C is greater than when offered a choice between A and {B, C}, then choice has *lured* you in the direction of A[1].

The studies reported below investigate whether there is a lure of choice. Studies 1 and 2 are based on what we call a *floating lure* design. All participants chose between two target options and a lure which all varied along two dimensions. These were presented in such a way that participants chose between a target in isolation ($target_I$) and a further choice between the other target ($target_L$) and a lure. Both targets played the role of $target_I$ and $target_L$ for different groups of participants: for half of them the lure was paired with one target, and for the other half it was paired with the other target. The normative decision procedure for participants is straightforward and intuitively obvious. They should decide which of the three possible alternatives they prefer, and then follow the course of action that leads them to it, ignoring all irrelevant options.

Study 1

Method

Separate groups of participants answered questions constructed using a floating lure design. There were two separate scenarios, the *nightclub* and *bank* scenario. The two scenarios were tested on different days by approaching members of the public at a shopping center. The nightclub question was answered by 150 participants, and the bank question by 100 participants.

In the *nightclub* scenario participants were told that "It is getting late one Friday night and you are out with a group of friends in the center of your town. You need to decide where to go next to continue the evening's entertainment. The town has only three nightclubs, two in the north (*south*) and one in the south (*north*). All are about a half-hour taxi ride away." The three nightclubs comprised two targets and one lure, all varying on dimensions of *cover charge* and *quality of experience*:

Target, Club Cherish: This club is cheap (£4) but does not play very good music.

Target, Club Diesel: This club is moderately expensive (£12) but plays great music.

Lure, Club Atom: This club is expensive (£15) but plays great music.

Note that the lure is dominated by one target (Club Diesel) but not by the other.

For half the participants, the lure (Club Atom) was paired with Club Cherish, thus making this $target_L$ in that condition (and hence Club Diesel was $target_I$), and for the remainder the lure was paired with Club Diesel. The sides of town where $target_L$ and $target_I$ were located were systematically varied between participants. After deciding the direction of the taxi, participants who opted for the side of town with two clubs then chose the specific one they preferred ($target_L$ or the lure).

In the *bank* scenario, participants were asked to imagine that they had inherited some money, £5,000 of which they had decided to invest in a savings account. Their choice had been narrowed down to three savings accounts in two banks, with one bank offering two possible accounts, the other offering one. As before, the three available options comprised two targets and one lure:

Target, Account A: High interest (6.1%) with 60 days notice for withdrawals.

Target, Account B: Low interest (5%) with instant access for withdrawals.

Lure, Account L: High interest (6%) with 45 days notice for withdrawals.

Note that the lure is not dominated by either target. Account A is better than the lure on interest dimension, but worse on the accessibility dimension, while Account B is worse on interest and better on accessibility.

For half of the participants Account A played the role of $target_L$, and for the remainder it was Account B. Participants first decided which bank they would visit, and if they selected the two-account bank (i.e. $target_L$ and lure) they then chose one of the two accounts in which to deposit their money.

Results of the Nightclub Scenario

Figure 1 shows the proportion of participants choosing each target when it was $target_L$ (number followed by asterisk) and when it was $target_I$. As can be seen, for both scenarios the proportion choosing a given target was substantially higher when it was paired with a lure than when it was presented in isolation.

The statistical analysis of these data is complicated by the fact that the lure is chosen occasionally, and the consequent necessity to decide what would have been chosen if the lure was not available. There are three possible statistical tests that differ in their assumptions concerning this counterfactual choice. The *conservative* test combines the lure and $target_I$ choices together. This test assumes that those who chose the lure would have chosen $target_I$ if the lure had not been available (i.e., their preference order was lure $\succ$ $target_I$ $\succ$ $target_L$), thus it is biased against demonstrations of the lure of choice. Another *liberal* test, which compares the proportions choosing the paired choice in the two conditions, assumes that those who chose the lure would have chosen $target_L$ if the lure had not been available (lure $\succ$ $target_L$ $\succ$ $target_I$). The liberal test is biased in favor of supporting the lure of choice. We adopted an intermediate *third-way* test, which includes only those who chose either the $target_I$ or $target_L$. This test assumes that the population contains a roughly even mix of people with the two preference orders described above.

A chi-square analysis on the Nightclub scenario revealed that the distribution of choices differed between conditions, χ^2 (2) = 12.42, $p < .002$. As can be seen in Figure 1, the overall market share of both clubs was increased when they were paired with the lure (i.e. when that club was $target_L$). A further third-way analysis revealed that significantly more people chose the same club when it was $target_L$ than when it was $target_I$ (χ^2 (1) = 4.42, $p < .05$). Excluding the choice of the lure option, 62% of participants preferred Club Diesel when it was $target_L$, compared with 44% when it was $target_I$. Similarly, 56% opted for Club Cherish when it was $target_L$, but only 38% when it was $target_I$. Another noteworthy finding is that there appears to be a non-trivial number of participants selecting the lure option, especially when it is paired with the non-dominating target option. We return to this later.

Results of the Bank Scenario

Results are summarized in the lower part of Figure 1. An overall Chi-square analysis revealed that the distribution of responses differed between conditions (χ^2 (2) = 6.87, p < .05). The graph show that far more people chose each target account when it was paired with a lure than when it was in isolation – the advantage was 26% for the high interest account, and 16% for the low interest account. Consistent with this observation, a further third-way analysis revealed a significant effect of condition (χ^2 (1) = 4.93, p < .05). In other words, ignoring those who selected the lure account, 76% preferred the high interest account when it was $target_L$, compared with 52% when it was $target_I$, and 48% preferred the low interest account when it was $target_L$, compared with 24% when it was $target_I$.

The findings of Study 1 offer a clear demonstration of the lure of choice. Whether options are offered as part of a choice set or on their own can influence people's choice behavior. People appear to like options that offer them choice, even when this does not mean that they are ultimately better off.

Study 2

Scenarios such as the bank and nightclub ones described above are motivating and have high external validity. Nonetheless, they are vulnerable to alternative interpretations which are difficult to eliminate without making the problems absurd and cumbersome. For instance, the lure of choice in the bank scenario may be attributed to the inference (by participants) that a bank offering two accounts is better than one offering one. Likewise, the effect in the nightclub scenario can be attributed to the expectation that if the preferred nightclub is full, then you can always go to the other. In Study 2 we eliminated such possibilities by testing the lure of choice using a *casino* scenario that incorporated easy-to-control, albeit potentially less motivating, hypothetical gambling problems for financial payoffs. Participants were 257 undergraduate management students who volunteered to take part. They were randomly allocated to conditions.

Method

Participants were asked to imagine they were at a casino which included roulette-type games. In each condition they could choose to play their final game at one of three wheels of fortune (spinners), of which two were targets and one a lure. The instructions were "imagine that you are at a casino. You are about to leave and you have one token left. Near the exit there are two tables offering a chance of winning a prize in exchange for your token. You can get one spin of the wheel in exchange for your token, and if the pointer ends up in the light section, you win the amount specified. Choose the table at which you would like to spend your token." One of the tables had two spinners, $target_L$ and the lure, while the other table had $target_I$. Figure 2 shows an example of one experimental condition. The position of each table (left or right of the page) and the spinners on each table (top or bottom), were fully counterbalanced. If the participant initially selected the choice table (with two spinners), they were then asked which spinner they would ultimately play.

For both conditions, the two targets were:

Spinner A: 45% chance of £50 (and 55% chance of winning nothing).

Spinner B: 37.5% chance of £60 (and 62.5% chance or winning nothing).
These target options have the same expected value (£22.50). In the *dominated lure* condition the lure was:

Lure D: 37.5% chance of £50 and 62.5% chance of winning nothing (EV = £18.75).
Note that Lure D is weakly dominated by both targets. In the *conflicted lure* condition the lure was:

Lure C: 47% chance of £40 (EV = £18.75).
This lure was in conflict with both targets, in that it offered a higher probability of winning, although a lower potential payoff. For the participants in half the experimental conditions the lure was on the same table as Spinner A, thereby rendering it $target_{L,}$ and for the others it was paired with Spinner B.

Results of Study 2

Figure 3 shows the pattern of choices in both conditions. This pattern is now familiar. For the dominated lure condition (n = 130) we see a (non-significant) increase in preference for a given target whenever it was $target_{L.}$ A third-way analysis, excluding those selecting the lure, shows that when Spinner A was paired with the lure it was chosen by 54% of the participants, compared with 43% when it was presented alone. Similarly, when Spinner B was presented as $target_L$, it was preferred by 57%, compared with 46% when it was alone (χ^2 (1) = 1.6, p = .21).

The conflicted lure condition (n = 127) shows a stronger lure of choice effect (χ^2 (2) = 7.53, $p < .05$). A third-way analysis revealed that 65% preferred Spinner A when it was $target_L$ compared with 39% when it was $target_I$. In the same way, 61% chose Spinner B when it was $target_L$ compared with 35% when it was presented alone (χ^2 (1) = 7.45, $p <$ .01). Once more, a minority in both conflicted conditions selected the lure item – which we address in the discussion section.

Study 3

This study was designed to test the generalizability of the lure of choice effect to a different domain. We used a variant of a problem that has undergone considerable academic scrutiny – the Monty Hall Problem. Participants were 373 undergraduate management students who took part during class time, allocated randomly to one of three experimental conditions.

Method

We tested three versions of the Monty Hall Problem. The first was the traditional 3-door problem. The others were 4-door problems, with and without a lure of choice component.

In the traditional two-stage Monty Hall Problem a contestant (or participant) is shown three doors, behind one of which is a prize. The contestant is told they will win the prize if they select the right door. They first choose a door. This door is not opened, however, but the knowledgeable host opens *another* door and reveals it does not conceal the prize (this is always the case, as the host has prior knowledge). Now there are two unopened doors, the chosen and unchosen one. The contestant is then given the option of sticking with their originally chosen door, or switching to the unchosen one. The correct, but strongly counter-

intuitive, solution is to switch (c.f., Mosteller, 1965; Selvin, 1975; Shaughnessy & Dick, 1991). The probability of winning after switching is two thirds, compared with one third by sticking.

The scenario was described to the participants in a class context using boxes to represent the doors. An experimenter explained the scenario to participants in the following way: "I want you to imagine a TV game show. In the show the contestant who wins in the early rounds gets a chance to go for the star prize. On the game show set there are three (*four*) doors, represented by these three (*four*) boxes. The host says that the star prize, a Ferrari, is in one of the boxes and that if the contestant chooses correctly they will win it. The other boxes contain goats, which are the booby prizes. He then asks the contestant to choose a box". At this stage one participant was asked to choose a box and the experimenter then put this box to one end of the line, identifying it as the chosen box. The experimenter then opened one of the other boxes that did not contain a prize. The experimenter then said "The host now says 'you have chosen this box but before you open your box, I'm going to give you the chance to change your mind'". Participants were then asked to turn to the experimental questionnaire and answer the questions inside. In the questions, the originally chosen box was labeled Box K and the remaining box(es) Box M (and Box L, for 'lure').

The questions began with the statement "You are a contestant in the game show described. Initially you have chosen box K". In the three door version participants were asked whether they wished to stick with Box K or switch to Box M. In the four door version of the problem, without a lure option, the question was identical in form but with an extra option to choose Box L. We refer to this as the Choose-A-Door condition (CAD). In the other four door version, which included a lure of choice component, participants had the option to either stick with Box K or "Choose to switch to one of the other two boxes (L or M). You don't need to decide yet which box you will finally choose". Participants then turned the page and were asked "If you chose to switch boxes please now choose" and were asked to choose between Box L and Box M. We refer to this as the "Choose-A-Choice" condition (CAC). As in the three door version, participants increase their chances of winning by switching, although this is still counter-intuitive; the probability of winning by switching in the four-door version is 3/8, compared to 2/8 for sticking[2]. The lure of choice predicts that the likelihood of switching will be highest in the CAC condition.

Results of Study 3

Figure 4 shows the proportion choosing to switch in the three conditions. Only a small minority of participants (14%) switched in the three-door condition. This is the standard findings in Monty Hall Dilemma studies (e.g. Granberg & Brown, 1995). The number switching increased, albeit non-significantly, in the CAD condition[3], and yet again in the CAC condition. The increase from the CAD to CAC was statistically significant (χ^2 (1) = 5.13, $p <$ .05), supporting our view that people were attracted to the prospect of making a further choice between two doors in the CAC condition.

Note that the lure of choice in Study 3 is sufficiently strong that it leads to a violation of regularity, according to which the market share of an option cannot be made larger by adding options to a choice set (Shafir, Simonson & Tversky, 1993; Tversky & Simonson, 1993). When option L was added in the Choose-A-Choice situation, the proportion choosing M or L

was more than doubled relative to the proportion choosing M in the three-door version of the problem. This occurred even though the value of M was devalued, from a 2/3 chance of winning to a 3/8 chance.

Summary and discussion

In three studies we showed that there is a 'lure of choice,' meaning that the frequency with which an option is ultimately chosen is increased when it is first offered as part of a choice (between it and a lure) compared with when it is offered alone. We demonstrated this in studies with both gambles and more realistic scenarios. These studies showed that when an identical set of items are on the table, with two offered as a choice pair and one offered alone, a target item will be chosen more frequently when it is offered as part of a pair than when it is offered separately. Study 3 showed that people were more likely to switch from their original choice in a variant of the Monty Hall problem when given the option of switching to a choice set (from which a single option will ultimately be chosen) than when the final choice had to be specified immediately. In general, a shift in preference could be created by taking the identical set of items, and making different partitions of them into choice and no-choice sets. If an item was in a choice set it was more likely to be chosen than if it was in a no-choice set.[4]

In this discussion we identify some plausible accounts of the lure of choice. These explanations include choosing to defer commitment, choosing to prolong anticipation and using a heuristic to minimize cognitive effort.

The first possible explanation is that the lure of choice is a manifestation of a more general desire to defer commitment for as long as possible. This may be related to a phenomenon previously discussed by Bastardi and Shafir (1998; see also Shafir, Simonson & Tversky, 1993), in which people like to search for information beyond the point where it is beneficial. For instance, to use one of Bastardi and Shafir's examples, a student deciding whether to take a course might wait to find out whether the professor has a good or bad reputation, even when the knowledge is irrelevant to his or her decision. Bastardi and Shafir's studies suggest that people often delay commitment until all information is in, even if the information is useless. Deferring choice can have negative consequences, not least being the possibility that opportunities will be lost as time passes.[5] Choosing choice gives people another way to defer making a final and irrevocable commitment. It does not eliminate all commitment, of course, since choosing choice (in our experiments) did mean the loss of potentially desirable outcomes that were not part of the choice pairs ($target_I$).

A closely related explanation, which is especially applicable to the Monty Hall and three-spinner problems above, is that choosing choice allows you to 'stay in the game' longer. Once the final option is chosen you may have to face the reality of losing, and can no longer derive pleasure from anticipating what it would be like to win (Elster & Loewenstein, 1991). People might therefore prefer selecting a choice in this situation because it allows them to enjoy the possibility of winning for longer. To illustrate, imagine a choice between a lottery ticket that is going to be played immediately, and one that will be played in a week. An expected value maximizer who discounts future outcomes would naturally take the immediate payoff ticket, but we suspect that most people will take the delayed one. The pleasure from a (non-winning) ticket is eliminated once the numbers are drawn. The pleasure of anticipation and of exploring future possibilities is illustrated in other ways, such as the old adage that "it is better to travel in

hope than to arrive". Other examples include the preparations for major festivals such as Christmas (where many people enjoy the preparations only to find the actual event comparatively disappointing) or spending time considering and discussing options on restaurant menus.

A third account of the lure of choice is that decision makers may not give full consideration to all the options in advance, and choose choice based on the heuristic that it is better than no choice. Payne, Bettman & Johnson (1993) have emphasized the role of minimizing the cognitive effort involved in choice, and have argued that, all things being equal, an easier to implement choice procedure will be chosen over a more taxing one. One way to simplify choice is to conduct only a superficial examination of available options, using a search criteria based on a heuristic such as 'it is better to choose from a larger than a smaller selection.' An easy way to choose a cinema, for instance, is to choose the one with the most screens, without bothering to consider what is showing on those screens. Such a mechanism may account for why more participants in Study 1 ended up selecting the lure (Club Atom) when it was paired with the 'cheap and cheerful' conflicting Club Cherish than when it was paired with Club Diesel. This kind of asymmetry, also reflected in the bank scenario in Study 1 (and to a lesser degree in the conflicted lure condition of Study 2) suggests that people are not thinking through all the options before making their decisions, but are first making the very simple decision of choosing on the basis of the presence or absence of choice, and only after they have taken the choice path do they give in-depth examination to the options that are now available. This suggests that a lot of the decision making in the choice conditions of these studies was driven by a preference for choice *qua* choice, and not by the options on offer.

The effort-conserving argument just offered begs the question of why the favored low effort strategy would be to choose choice, rather than to take the no-choice alternative ($target_l$) that eliminates all need for further effort. We suggest that a preference for choice over no-choice is a heuristic that has emerged because, in the past, it has usually led to the best outcome. Our ancestors would have quickly learned that it is better to hunt in an area where there is a choice of prey (both in number and species), than in an area where there is little if any choice. Indeed, it is likely that they would not have had to learn at all – the research showing that animals prefer choice over no-choice paths (Catania, 1975, 1980; Suzuki, 1999; Voss & Homzie, 1970), suggests that the preference for choice may be a fundamental part of our natural endowment. It is difficult to think of a natural environment in which there would be a zero, or even negative, correlation between choice and the value of the ultimate outcome. The evolutionary environment, in which our preferences were developed, would have rewarded falling prey to the lure of choice with an increased probability of survival and reproduction.

In our experiments we placed people in situations very different from their ancestral environment. We deliberately engineered the situation in such a way that the lure of choice could lead people to take alternatives that they would not otherwise want. In some cases (Studies 1 and 2) this led to them to potentially less favorable outcomes, whereas in Study 3 it led them towards the normatively correct, but counter-intuitive and subjectively least preferred solution. The design of the studies permitted us to distinguish between preferences for choice *per se*, and preference for the final outcome. While such situations are unlikely to be encountered in the environment created by disinterested nature, they are very likely to be

encountered in many of the *artificial* environments that we face as consumers. There are an abundance of situations in which we face decisions between choice sets that have been created for us by far-from-disinterested marketers. To name but a few, there are the movies at a multiplex, the groceries in a supermarket and the dishes on a restaurant menu. There is a clear trend in these marketing areas to offer increasingly large selections (Kahn & McAlister, 1997). Often, this is at a cost to the consumer in the form of greater distances to travel, more time spent in queues and higher prices. Moreover, in almost all categories relatively few goods take the greatest share of the sales, and in some cases the goods are almost indistinguishable anyway. The needs of most consumers, therefore, could be met by offering much less choice than there is. Yet the inherent attractiveness of choice, even when it is disconnected from any ultimate benefits, leads retailers to offer it and consumers to be lured to it.

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Voss, S.C. & Homzie, M. J. (1970). Choice as a value. *Psychological Reports,* **26**, 912-914.

[1] One possible consequence of the lure of choice is that it can lead to violations of the regularity condition of choice, according to which the market share of an option cannot be made larger by adding options to the choice set (Shafir, Simonson, & Tversky, 1993; Tversky & Simonson, 1993). The regularity condition states that the proportion of times A is chosen from the choice set {A, B, C} cannot exceed the proportion of times it is chosen from the choice set {A, B}. If there is a lure of choice, however, it might work in the following way. Imagine that the preference ordering between the three alternatives is A, B $\succ$ C (i.e. A and B are both preferred to C, although the relationship between A and B is unspecified). In a choice between A and {B, C} the fact that B is associated with choice makes {B, C} more attractive than B would be alone. Once {B, C} is selected however, the only attractive option left is B, and so it is chosen.

[2] The formula for calculating the probability of winning by switching, reported in Selvin (1975) and accredited to D. L. Ferguson, is (N-1) / [N(N-n-1)], where N = total number of doors and n = number of incorrect alternatives revealed.

[3] This result is in line with those of Granberg & Dorr (1998) who found no difference in switching behavior in the initial choice of participants in conditions with three, five and seven doors.

[4] In certain situations the lure of choice effect can produce results which are superficially similar to the asymmetric dominance effect (Huber, Payne & Puto, 1982), or attraction effect (Simonson, 1989). However the lure of choice effect differs from these in that it is an emergent characteristic of the *decision structure* rather than of the *number of items* in the choice set and their comparative *characteristics*. The ADE is found for choices between two options that vary on two dimensions. Introducing a third option that is dominated by one of the options but not the other will increase the market share of the dominant option (e.g., Herne, 1998; Shafir, Simonson & Tversky, 1993; Slaughter, Sinar & Highhouse, 1999). The ADE would predict no differences in the preference for the same options presented in different decision structures, as in our studies.

[5] Bastardi and Shafir (1998) suggest that people can often be drawn by new information into making choices that they otherwise would not, and should not, have made. Learning that a professor has a bad reputation may make a student not take a course that is vital to his or her degree.

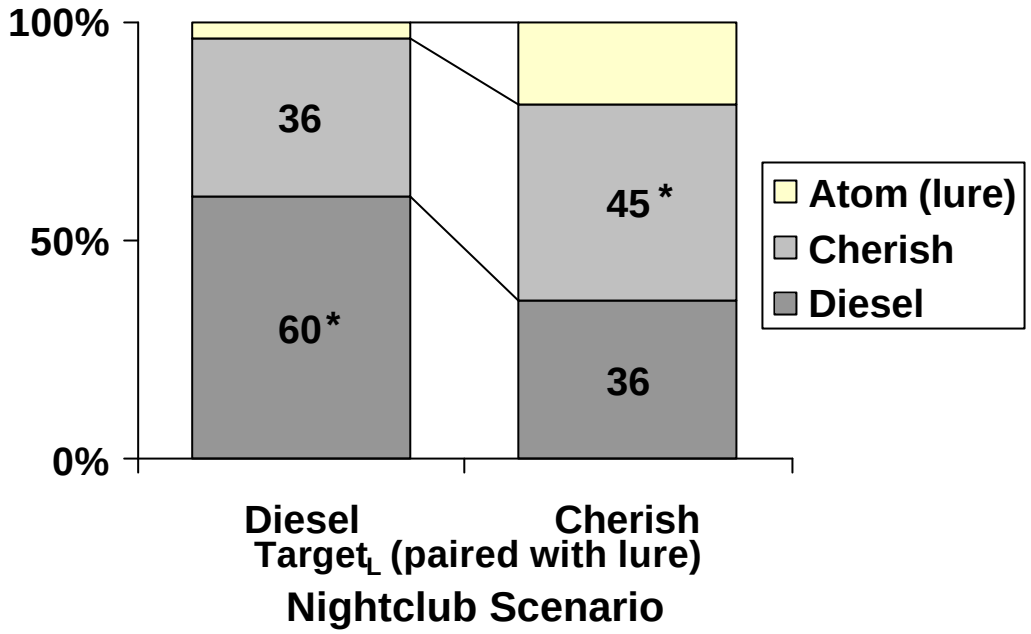
Figure Captions

Figure 1. Results from Study 1, Nightclub and Bank scenarios. The columns are broken into segments corresponding to the percentage participants choosing each alternative. Asterisk (*) indicates percentage selecting the alternative playing the role of $Target_L$.

Figure 2. Example of presentation of choice options in Study 2 (dominated lure condition - Spinner A paired with lure D on left hand side and Spinner B presented alone on right hand side).

Figure 3. Results of Study 2, Casino scenario; dominated and conflicted conditions. Columns show percentage participants choosing each alternative. Asterisk (*) indicates percentage selecting the alternative playing the role of $Target_L$.

Figure 4. Results of Study 3. Numbers represent total percentage participants sticking with original selection or switching in 3-door and 4-door Choose-A-Door (CAD) and Choose-A-Choice (CAC) conditions. In the CAD condition participants switched to a named alternative, in the CAC condition they switched to either alternative, without first specifying which. Asterisk (*) represents mean predicted to be highest given a lure of choice.


100%
50%
0%
36
60*
45*
36
Atom (lure)
Cherish
Diesel
Diesel
Cherish
Target$_L$ (paired with lure)
Nightclub Scenario

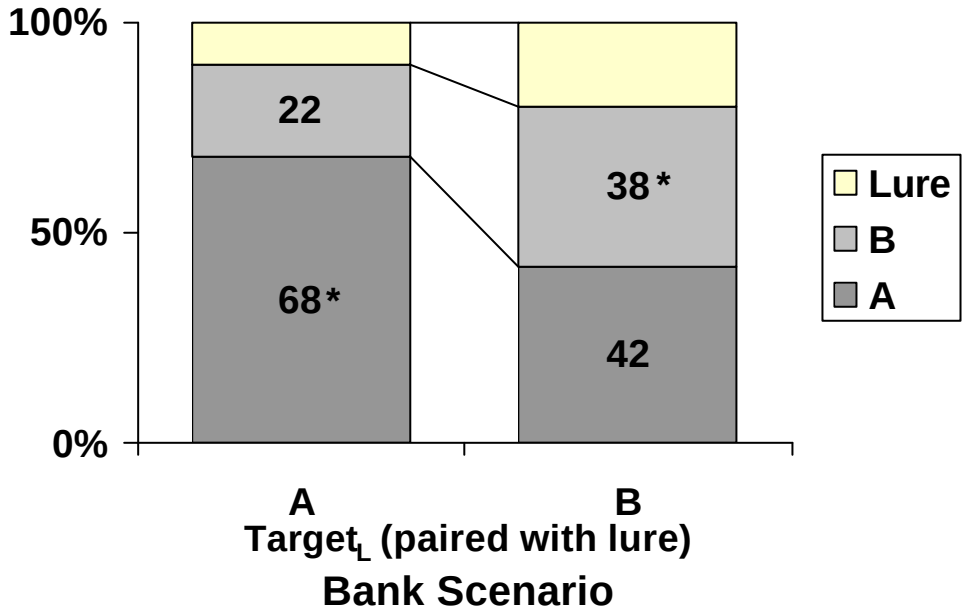

100%
50%
0%
22
68*
38*
42
Lure
B
A
A
B
Target$_L$ (paired with lure)
Bank Scenario

Table 1

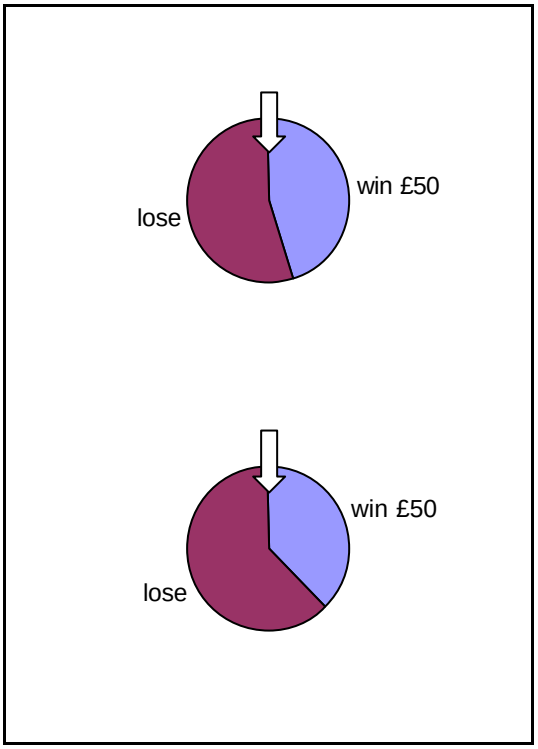
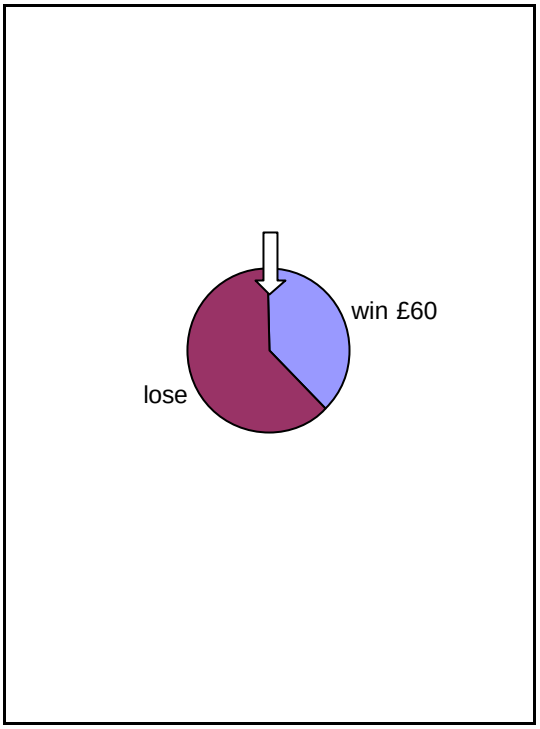
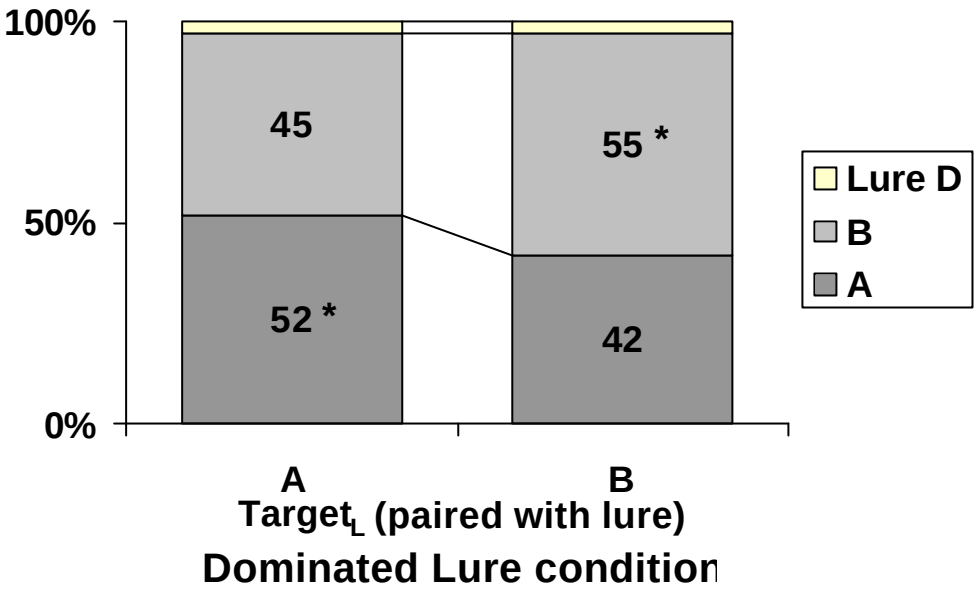
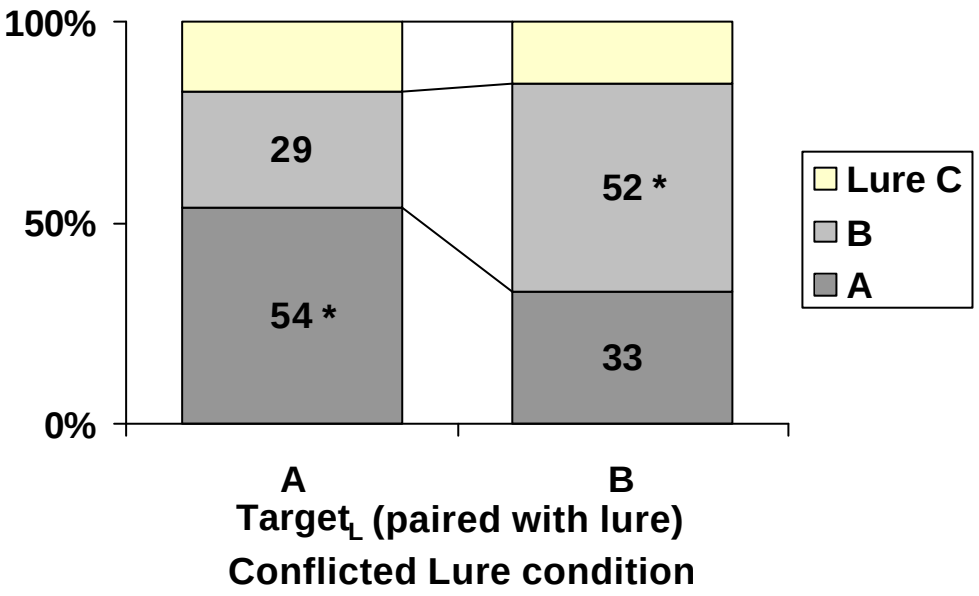
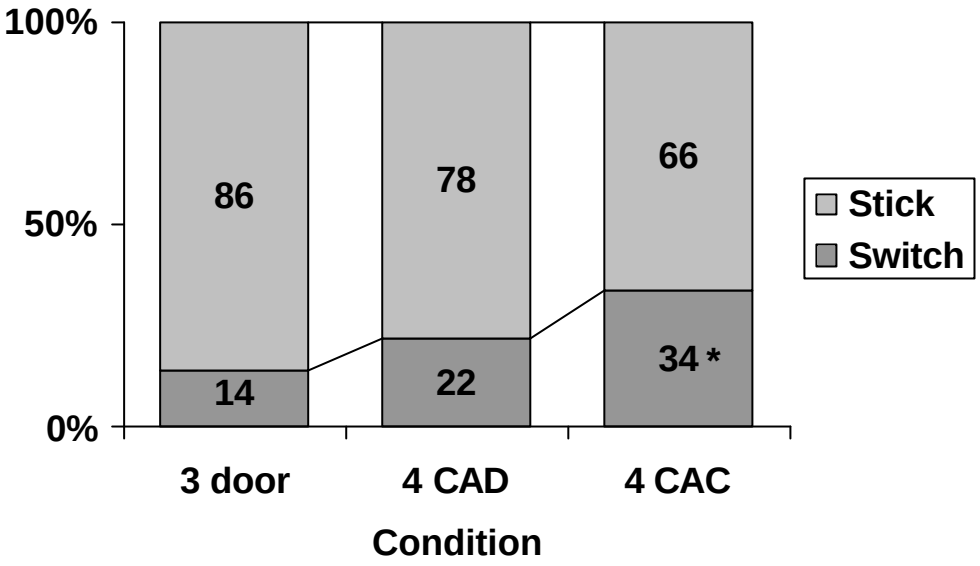


Table 2




100%
50%
0%
45
52 *
55 *
42
Lure D
B
A
A
B
Target$_L$ (paired with lure)
Dominated Lure condition


100%
50%
0%
29
54 *
52 *
33
Lure C
B
A
A
B
Target$_L$ (paired with lure)
Conflicted Lure condition


100%
50%
0%
86
78
66
14
22
34 *
Stick
Switch
3 door
4 CAD
4 CAC
Condition