



**Asymmetric dominance effect  
in choice for others**  
Arna Helgadóttir

B.Sc. í viðskiptafræði

Vor 2015  
Leiðbeinandi:  
Haukur Freyr Gylfasson

Arna Helgadóttir  
Kt. 221089-2789



## Formáli

Þetta rannsóknarverkefni er B.Sc. verkefni í viðskiptafræði við Háskólann í Reykjavík, sem var unnið á vorönn 2015. Höfundur er Arna Helgadóttir. Höfundur vill þakka leiðbeinandanum, Hauki Frey Gylfasyni, fyrir frábæra og skemmtilega leiðsögn. Einnig vill höfundur þakka Hafdísí Þórisdóttur fyrir andlegann stuðning og Helga Leifssyni og Aðalsteini Leifssyni fyrir að vera góðar fyrirmyndir þegar kemur að því að taka sig ekki of alvarlega.

Reykjavík, 15 maí 2015

---

Arna Helgadóttir

# Contents

|   |    |
|---|----|
| Introduction .....                              | 1  |
| Asymmetric dominance effect.....                | 2  |
| What is the asymmetric dominance effect?.....   | 3  |
| Choosing for self vs. others .....              | 6  |
| Limitations of asymmetric dominance effect..... | 9  |
| With these limitations, why even study it?..... | 11 |
| Method .....                                    | 12 |
| Participants .....                              | 12 |
| Procedure .....                                 | 12 |
| This study .....                                | 14 |
| Results .....                                   | 14 |
| Discussion .....                                | 15 |
| References .....                                | 18 |
| List of figures                                 |    |
| Figure 1 Movie comparison.....                  | 4  |
| Figure 2 Results.....                           | 15 |

---

When making choices the context of the offer influences how decision makers measure value. The asymmetric dominance effect is a theory of how choices change when a third and completely dominated decoy option is added to a two choice set, as a way for decision makers to simplify the decision. Choosing for others is a common occurrence, yet not widely explored in the literature. Results of an experiments showed that the asymmetrically dominated decoy has an effect when participants are choosing for themselves, however it did not have an effect for participants choosing for a friend. The results show that there is a difference between choosing for self and choosing for others.

---

Ákvarðanartaka getur verið erfið, og þegar til stendur að meta þó kosti sem eru í boði fer það allt eftir samhenginu hvað fólk velur. Áhrif ráðandi mishverfu (e. asymmetric dominance effect), lýsir því hvernig fólk breytir afstöðu sinni til tveggja valkosta, þegar þriðja kostinum, ginningarkostinum (e. decoy), er bætt við. Sá valkostur þarf að svipa mjög til annars hinna tveggja, en er þó nokkuð síðri. Með þessu móti einfaldast málið fyrir neytendanum. Það skiptir líka máli fyrir hvern er valið, hvort viðkomandi ætlar sjáfum sér, eða öðrum, það sem valið er. Val fólks fyrir aðra en sjálft sig hefur lítið verið rannsakað. Niðurstöður tilrauna leiða í ljós að ráðandi mishverfa í valkostum hefur aðeins áhrif á valið, þegar þátttakandur velja fyrir sjálfa sig, en ekki þegar þeir velja fyrir aðra. Það skiptir því höfuðmáli fyrir það hvernig fólk velur, hvort það ætli að velja fyrir sjálft sig, eða velja fyrir aðra.

---

## Introduction

Thinking is hard. Making decisions can be even harder. It takes cognitive effort to compare alternatives, keep goals in mind and trying to minimize risk (Kahneman, 2011). Not every decision will be worth the effort needed to think hard, and therefore in a lot of circumstances people will simplify their thinking and decision making using mental shortcuts. Heuristics are a mental tool, often called mental shortcuts, used to simplify problems and questions. Such as substituting a difficult question for an easier one, or using emotions or liking to determine inherent value (Kahneman, 2011). Many heuristics are well known and often talked about for example in relations to decision making, marketing and negotiations, such as anchoring, relying too heavily on the first piece of information received on a subject even if it is irrelevant (Tversky & Kahneman, 1974). Heuristics might make decisions much easier but they can also lead decision makers to choose less optimal options or even to repeat systematic errors (Tversky & Kahneman, 1974). Aside from heuristics, there are many biases and effects that have been shown to have an impact on decision making, they feel intuitive and right but are in fact as Dan Ariely's clever title of his 2008 book *Predictably Irrational*.

Everything is relevant. Contrary to what most people find intuitive, there is no built in value measuring device in the mind. To find the value of things we compare them to other things: that is how worth is measured (Ariely & Wallsten, 1995). How thorough decision makers are in how deeply they compare attributes and whether they fall into biases and shortcuts depends on a number of things, such as personality, cognitive ability, how invested they are and even when they last ate (Ariely, 2008). Marketers and others wishing to influence people can draw great benefit from studying decision making, the potential to sway people's choices is amazing when those who design offers understand the predictability of decision makers when faced with certain contexts.

Some people are more prone than others to be affected by heuristics. Those who have a personality type with a strong need for uniqueness are less likely to fall on heuristics and other mental shortcuts, because they prioritize the way they make decisions above using a simple and mindless way of choosing (Chang, Chuang, Cheng, & Huang, 2012). Those who have cognitive overload or ego depletion, which means in a sense are mentally tired, are more likely to simplify their choices by falling on mental shortcuts. Whilst those who have a low cognitive strain or a higher level of cognitive ability tend to have the mental energy to keep in

mind their mental goals and compare all the actual attributes rather than relying almost solely the context of the offers (Chang et al., 2012).

Consumer behaviour and decision making are interesting subjects not only for their practical uses in marketing, but also for the contributions they bring to the literature of how people choose. Understanding behaviour is a better way to design offers than guesswork. Despite considerable literature in this area, there are a number of avenues that may be researched farther and gaps in knowledge that may be filled. This gap has to do with the asymmetric dominance effect and whether it changes when decision makers are choosing for themselves compared to choosing for others.

## Asymmetric dominance effect

The story of the asymmetric dominance effect (ADE for short) begins with researchers Huber, Payne and Puto (1982) who experimented on a phenomenon known as regularity: Regularity is one of the main elements of the rational choice theory set forth by Luce (1977). Essentially, the theory of regularity is that when there is a choice set with two options adding an extra choice should not affect the likelihood that one of the original options will be chosen (Luce, 1977).

In the results of their research Huber et al. (1982) observed an effect which violated the regularity theory. They named it the attraction effect, but it would later be better known as asymmetric dominance effect. The study was not designed to create a marketing tool, but to demonstrate that theoretically regularity could be violated. However, Huber et al. where marketing scholars so they designed the experiments with regard to marketing and used consumer products when choosing their stimuli.

Although the effect was first documented in a marketing journal, over the past 30 years many researchers outside the field have added to the research. (Huber et al., 2014). For example, Ariely (1999) found that college students were influenced by the asymmetric dominance effect in rating how attractive they found other college students (Sedikides, Ariely, & Olsen, 1999). It has been argued that asymmetric dominance effect might be one of the biggest theoretical exports from marketing into other social sciences. Numerous reproductions of the experiments on asymmetric dominance effect have been conducted by using a variety of

choice problems in different conditions. That includes controlled laboratory settings as well as in-store and online conditions (Hedgcock & Rao 2009; Huber et al., 2014).

### What is the asymmetric dominance effect?

If there is a choice set with two alternatives that have trade-offs, then the asymmetric dominance effect can occur when a third alternative is added, if the third alternative is completely dominated by only one of the previous alternatives (Ariely & Wallsten, 1995; Huber et al., 1982, 2014). For example the choice on a Friday night to watch a comedy or a thriller. Imagine you could go for either genre, comparing them might take some mental effort. At this point your friend adds a third option to the choice set, another comedy that has gotten much worse reviews than the original comedy in the choice set. Comparing the two comedies is much easier than comparing the first comedy and a thriller. The mind simplifies the choice set by substituting the comparison of a comedy versus a thriller with that of a potentially good comedy versus a surely bad comedy. The choice has been made simple and the comedy from the original choice set is chosen and the thriller is ignored.

It is possible that your friend wanted to watch the comedy and used his knowledge of asymmetric dominance effect to influence your choice. Another way to explain it is to say that the asymmetric dominance effect occurs when there is a choice set with two products which preferably have about a percentage rate of being chosen at around 50%-50% and to which decision makers do not have a very strong prior preference (could go either way). Those two products will be called the target, which the researcher wants to gain in market shares (the comedy), and the competitor which the researcher wants to diminish in market shares (the thriller). The target will be called A, whilst the competitor will be called B. When choosing between A and B there are trade-offs, when choosing one there is something to lose and something to gain (funny versus exciting). The asymmetric dominance effect is in play when a *decoy* (the second comedy with bad reviews) is added to the choice set. The decoy is a product that is clearly dominated and inferior but very similar to the target, there should be little or no trade-offs between the target and the decoy. The decoy can then be represented by A- (Ariely & Wallsten, 1995; Huber et al., 1982, 2014; Simonson, 1989).

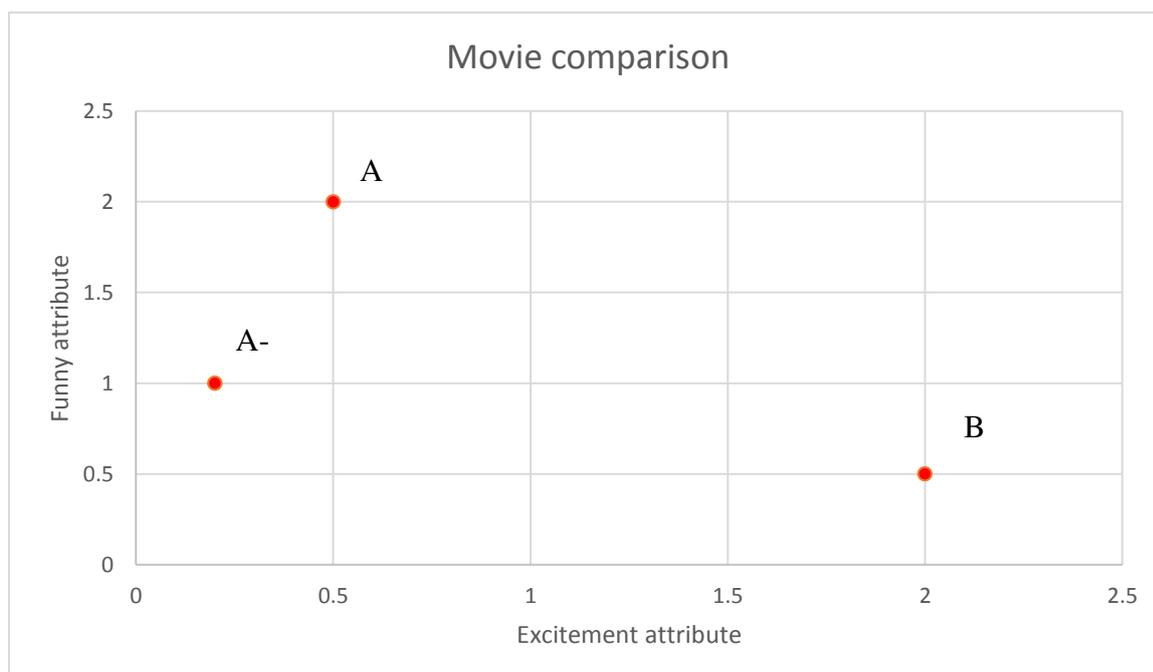


Figure 1: Showing attributes in a choice set of movies

When the decoy is added to the choice set the context of the offers change, the previous choice set involved the cognitive work of comparing A and B with trade-offs. The decoy offers a simplified comparison of A and obviously dominated A-, which can often leave B unexamined or forgotten. Comparing all three choices is costly in mental energy but simplifying the offer turns it into a no-brainer: the target clearly dominates the decoy. When making consumer choices the thought process is intuitive and happens fast, and decision makers do not go through complicated decision making models in their minds but rather when it suits them they jump to conclusions to save time and mental energy (Ariely & Wallsten, 1995; Corsetto & Gaudeul, 2014; Huber et al., 1982, 2014).

There are two parts to the asymmetric dominance effect that must be met for it to have any influence. First, the decision maker has to easily and intuitively identify the dominance of the target over the decoy. Secondly, they need to rule out the decoy which should lead to them to have a preference for the target. For the target and decoy to be easily compared, they need to have almost no or no trade-offs at all and should have similar but dominated attributes.

Studies and observations in the natural world point to the asymmetric dominance effect having more of an influence when attributes are harder to evaluate. When the choice is difficult it is much less costly in terms of cognitive energy to simplify the choice set (Corsetto & Gaudeul, 2014).

Simonson's (1989) added to the research and demonstrated that the asymmetric dominance effect was stronger when the decision makers have more motivation to make the right choice. Such as expecting to be scrutinized by superiors, friends or family members which adds a layer of complexity. Trying to take into consideration the preferences of others adds a level of uncertainty that is not present when choosing privately for oneself. When a decision maker is motivated to choose the best outcome and minimize risk, then he is more likely to study all the choices thoroughly and more likely to establish the dominance of the target, which should increase the effect. When having to justify a choice to others decision makers use the asymmetric dominance effect as a reason to choose the target. The fact of the target's dominance over the decoy is a logical reason that is easy to show when justifying a choice (Simonson, 1989). If there is no change in the original choice set when the decoy is added then it should be looked into whether the dominance was clear (Huber et al., 2014).

There is a similar effect as the ADE, which is used by decision makers in choice sets when there is not any obviously asymmetrically dominated option. It is called the compromise effect. The basic assumption of the compromise effect is that an option in a choice set will become the most popular when it is placed in a context where it is the middle option. The middle option feels safe because when uncertain of consequences people tend to avoid any extreme choices. Intuitively decision makers feel like a middle option is one that would be chosen by the most people. This effect, just as the ADE, violates regularity because an alternative in a two option set can gain more popularity when the third option is added. The main difference between the compromise and asymmetric dominance effect is dominance, in the compromise effect there does not need to be any clear dominance, just a middle option (Simonson, 1989).

The compromise effect is a reaction to decision makers needing to deal with uncertainty and the prospect of regret. Decision makers are always trying to maximise perceived benefits while at the same time trying to reduce losses. Loss aversion is a part of prospect theory, which shows that the psychological pain of a loss is greater than the psychological reward of a gain of the exact same size, therefore decision makers try to minimize risk to avoid losses (Novemsky & Kahneman, 2005). Decision makers are more likely to take risk to avoid loss than to increase gain. For example, they are more likely to prefer a 75% chance of losing nothing and a 25% chance of losing 100\$ over a sure loss of 25\$, while they are likely to prefer a gain of 25\$ over a 75% chance of gaining a 100\$ and a 25% of gaining nothing (Novemsky & Kahnemann, 2015). It is probably not a coincidence that the last message

coming from Prime Minister David Cameron on election day in England a few days ago was “don’t do something you’ll regret”, as the message is likely to have played on the electorate’s loss aversion. All extremes by definition have greater losses and rewards, but due to loss aversion and the risk of regret there is a tendency to avoid extremes (Simonson, 1989). When there is no obvious dominated option as in the ADE, the middle option is viewed as the least risky, which results in the compromise effect (Chang et al., 2012).

The compromise effect is less robust in laboratory experiments than the asymmetric dominance effect (Huber et al., 2014). However in real market settings retailers have used the compromise effect more to push consumers towards certain offers and regularly use extreme avoidance to push certain products. Both these concepts add to the literature and understanding of choosing and both provide strong evidence and insight into context and how preferences are constructed by it (Huber et al., 2014). The compromise effect however has been researched in context with choosing for self vs. choosing for others (Chang et al., 2012). The asymmetric dominance effect has not been researched in context of choosing for self vs. for others, it is a gap in the literature for the asymmetric dominance effect.

## Choosing for self vs. others

When choosing an offer there is almost always some level of uncertainty about the actual attributes of the offer and the consequences of choosing it, and even to preferences that might change in the future. It is impossible to know beforehand what will result in the greatest value, but there are ways of minimizing the risk (Chang et al., 2012).

In societies where there is a custom for gifts and souvenirs. Consumers do not only have to choose for themselves, they very often have to choose for others. Studies have shown that people do not always choose for others what they would have chosen for themselves. This may explain why thousands of Icelanders received foot massage machines for Christmas some years ago! Furthermore people may give advice sometimes opposed to what they themselves would have chosen to do. This stems from wanting to protect themselves, if evaluated for their decision, from their lack of knowledge of other’s goals and attitude towards risks. When choosing for others there is a higher uncertainty than when choosing for oneself. Since greater uncertainty has been shown to increase the use of heuristics and generally increase the compromise effect, that was introduced above, that means that most

likely there is a difference in the way these effects influence decision makers when choosing for themselves and for others (Chang et al, 2012).

Even though choosing for others is an act most people perform on a regular basis, there is not much literature on the topic. Chang et al. (2012) address in their paper the differences in the strength of the compromise effect on decision makers choosing for themselves and choosing for others, with different levels of perceived uncertainty by choosing for others with a variety of closeness in relationships. They focus on three factors of uncertainty in decision making to the compromise effect; the likelihood of being influenced by the social aspects of relationships, being accountable for the choices and the expected regret of choices.

Studies on the differences of choosing for self or others have found many reasons for the differences, the weightiest of which is the level of uncertainty. The uncertainty stems from the decision maker feeling as if his knowledge about the other's preferences and reactions might be insufficient and the results could be unpredictable (Chang, et al. 2012). The decision maker might not be aware of the other's preferred level of risk taking or their goals for the outcome. Choosing for yourself and for others will never be the same process because of course it is easier for decision makers to take into account their own preferences, needs, goals and feelings than those of other people. One of the ways decision makers deal with this uncertainty is to minimize the risk of loss by avoiding any extreme. This can be done by choosing an alternative that they believe is the most popular by social standards (Chang et al., 2012).

When deciding for oneself then the consequences of the choice are most important, but when choosing for others another influence factor is keeping up ones image. When a decision maker is choosing for another person he is contributing to the other's image of him as a person (Blustein, 1999). Furthermore, another difference in the process of choosing for oneself versus for another person is that the decision maker is more accountable for his choice when choosing for others. When choosing for others decision makers are in some way expected to justify that choice. Furthermore, social norms are a more prevalent factor for decision makers when they know they have more accountability (Choi, Kim, Choi & Yi, 2006). Research by Simonson (1989) shows that the asymmetric dominance effect is magnified when participants were told that they would have to justify their choice to another person, but those choice where choices made for self. The consideration of image, accountability and justification point towards decision makers being very invested in the decision when choosing for others,

because the future consequences of the choice can affect them socially and hurt their relationship, status or image.

Loss aversion is one of the most prevalent biases, it is a natural reaction where losses bring about more psychological pain than the reward of a gain (Novemsky & Kahneman, 2005). Loss aversion has proven to replicate and is very robust. It has been shown however that choosing for others results in much less loss aversion than when choosing for oneself (Polman, 2012). Loss aversion would point towards decision makers being less invested in choices for others because they will not need to live with the consequences. They rather look for a comfortable solution and are less motivated because they do not feel the same psychological pain for others losses as for their own (Novemsky & Kahneman, 2005).

The less the decision maker knows the other person they are choosing for socially the more uncertainty about their tastes, goals and so forth. The closeness of the relationship largely determines the level of knowledge of the other person since closeness tends to result in more interactions. There is less uncertainty when choosing for close relationships rather than strangers or acquaintances. Furthermore, those people view those they have close relationships with as resembling themselves in character and taste. They tend to guess the risk level of those close to themselves as similar to their own. The closer the relationship, the more likely the decision maker is to really examine the goals and values of the person they are choosing for. The decision maker will be less concerned and less motivated to ensure a positive outcome when it comes to distant relationships or strangers. When the uncertainty is very high, decision makers might perceive the situation to very much out of their own control and revert to heuristics to reduce risk (Chang et al., 2012).

Chang's et al. (2012) results show that the compromise effect is greater when choosing for others than when choosing for one self. The greater uncertainty of the other's preferences and the consideration of the possible negative outcomes caused the compromise effect to occur more frequently. They also found that the compromise effect was strongest when choosing for an acquaintance, less when choosing for family members and friends and least when choosing for oneself. Furthermore their research shows that accountability for the choices caused participants to choose more like they would for themselves and less likely to use the compromise effect.

## Limitations of asymmetric dominance effect

The most likely mistakes that are made when constructing asymmetrically dominated offers is in connection with the decoys. When working with a decoys there are a number of methodological difficulties. There have been some opposing researchers, such as Frederick, Lee and Baskin (2014), who have questioned the practical validity of the asymmetric dominance effect. Their research does contribute to the existing literature by showing that the effect replicates but there are also moderators, or boundary conditions, that can decrease or increase the size of the effect. They argue that the restrictions for the effect are so impractical that the research is not relevant to market practice. Huber et al. (2014), the creators of the effect remain convinced of the value of the effect for both theory development and efforts to help shape preferences. They claim that opposing researchers have only demonstrated the effect can be weakened and is sometimes reversed, with rich stimuli.

Huber et al. (2014), through their own research over the last 30 years in addition to other's research and opposing researchers, have found the five ways the asymmetric dominance effect is most likely to be diminished or inhibited. These five properties are; prior trade-offs; strong preferences between target and competitor; a dominance relationship between the decoy and target that is hard to identify; a strong disliking or liking for the decoy (Huber et al., 2014). When designing offers with decoys it is crucial to find a target, competitor and decoy that do not fall into these categories.

First of all, the asymmetric dominance effect will evidently be dulled when the decision maker has a greater propensity to one of the choices, in such cases the effect of the decoy will have less influence, but it can still have some influence. At the same time, when there is little or no predisposition for the choices then context, rather than taste or memory of a product, will be much more relied upon to give value to the choices (Huber et al., 2014). An example of this would be a horror movie buff who is faced with a choice set of a comedy (target), a less funny comedy (decoy) and a horror movie (competitor). The dominance relationship might influence him, but it is less likely because he has a greater propensity for the horror movie.

By finding an offer which has the probability to be chosen at 50%-50% there is less probability of a pre-existing bias for one of the choices. One way to test if an offer has strong prior trade-offs for decision makers it is good to compare the effect of A- or B- on the original

choice set a comparison of A, B, A- and A, B, B-. It is not a perfect test, but does give a more accurate picture of whether the effect.

Not only can participants in studies or consumers in the market environment carry with them their own strong prior trade-offs, they can also be influenced by earlier tasks they have had to carry out or questions that they have been subject to. They can be anchored to certain values with prior questions. Furthermore, their value assessment can change if they are asked to assess the value of the qualities or features of the choices before making a choice, as they then use more cognitive effort and are less likely to take the short cut of only comparing the decoy and the target (Huber et al., 2014).

Secondly, the ADE will be dulled if decision makers have a strong prior preference and are not willing to change them, even if the beginning split between target and competitor is 50%-50%. Preferably the decision maker should not have constructed preferences beforehand. This will make the effect more likely to take place. Products that decision makers are likely to have a strong prior fondness for or brand loyalty, such as cigarette brands, and are unlikely to change are not optimal candidates for an asymmetric offers (Huber et al., 2014).

By definition the asymmetric dominance effect will only influence decision makers if they can identify that there is asymmetric dominance in the offer. Decision makers cannot act on a relationship they do not perceive, and therefore a decoy that is not obviously dominated by the target will not have the influence it should (Huber et al., 2014).

Finally, the decoy will not fulfil its duty if it is either too disliked or too liked. If the decoy is too repellent it might push decision makers to the competitor. Using the movie example if the decoy comedy is extremely crude and offends the decision maker's sensibilities it might put him off comedies altogether for the night. If the attributes compared between the target and decoy are negative, then the gain from the target might not give the same emotional boost as it would with positive attributes. The asymmetric dominance effect will be stronger when the decision makers feels rewarded by the relationship between the decoy and the target.

Reversely, it would be difficult to increase the share of the target if the decoy took any share at all. The best way to minimise the competitive impact of the decoy would be to make it completely or almost completely dominated by the target. A key factor is that the dominance has to be asymmetric in that the decoy option would clearly be dominated by the target A but not the competitor B. A comparison between the decoy A- and the competitor B would still

require trade-offs, but no trade-offs should be needed between the decoy A- and the target A (Huber et al., 2014).

If the decoy is not obviously dominated and is too close a competitor with the target then individual preferences could overpower the dominance relationship. Most of the decision makers who chose the decoy do it because they can't quickly and obviously identify the dominance relationship, or the decision maker lacks time or attention to spend on the choice. It is important to design an offer where the decoy is almost never chosen. Decoys should be chosen close to never when the decision maker understands the dominance relationship (Frederick, Lee, & Baskin, 2014).

Problems with the decoy are not the only things that can influence the strength of the asymmetric dominance effect. The simple change in the size of the choice set might have influence on its own (Crosetto & Gaudeul, 2014; Frederick et al., 2014).

The asymmetric dominance effect has practical uses in business, where it can be used as a way to increase sales of a profitable product by adding a decoy to draw consumers towards the target. This might be non-cost effective if a product has to be produced that is obviously inferior and will not sell, but in online markets and online offers where the physical products needs not be visible there is little cost (Huber et al., 1982).

With these limitations, why even study it?

The asymmetric dominance effect may not be widely used in today's marketplace, but it could be and more importantly it adds to the shared knowledge of decision making and context. It adds to the evidence that task and framing effects matter, indicating that preferences are often constructed and relative (Ariely & Wallsten, 1995). Context matters, and often how an offer is presented has more of an impact on decision makers than the actual attributes of the products (Huber et al., 2014). People make difficult decisions every day seemingly without much effort. It is much more difficult to understand how people make decisions than it is to make a decision (Ariely & Wallsten, 1995). The most important thing that has been learned is that preferences are often constructed, both in theory and in practice. This helps in understanding decision making and may contribute to helping people about making better decisions and marketers to designing more effective offers.

Laboratory experiments are well controlled, but in the marketplace there are so many factors and attributes that make it very difficult to use the asymmetric dominance effect. Furthermore, there are many factors such as brands which already are strong preferences in the minds of consumers. That can cause the dominance relationship to be ambiguous. The main problem of the using the asymmetric dominance effect in a competitive market place is that a completely dominated decoy is not likely to survive long and the cost of producing it might be high (Huber et al., 2014).

Utilizing the asymmetric dominance effect in offers becomes much easier to perform and monitor in the digital market place, especially with web retailers where star reviews give consumers an easy way to categorize and compare attributes. In the digital marketplace it is easy to control offers, and even possible to use algorithms to personalize offers to certain target groups or even individuals (Huber et al., 2014).

ADE has been researched and documented for over 30 years, yet it is still not widely used or known. This can be due to authors overgeneralizing, that is when authors come to conclusions based on results that are not specific enough. However the results have shown that ADE is replicable, it is predictable and has boundaries, it adds to the concept that people construct preferences as well as supports research that shows that preferences are constructed and are sensitive to context (Huber et al., 2014).

## Method

### Participants

Three hundred and eighty six undergraduate students were recruited from the University of Reykjavik chosen from convenience. The study was distributed by the university e-mail service. The participants received no compensation. Participants were 55% women and 45% men. Most participants, or around 42%, were between the age of 18-24 years.

### Procedure

Two factors were controlled and manipulated in a 2x2 design, comparing choice for self vs. other in a two or three option set of offers, between-participants. The participants were

randomly assigned to one of four scenarios and asked to choose the offer in a choice set which seemed most attractive to them. The participants were asked to imagine they were in an actual retail situation when choosing among the offers. The structure of the four scenarios was; choose between two alternatives for self, choose between two alternatives for others, and choose between three alternatives with one asymmetrically dominated for oneself and choosing between three alternatives with one asymmetrically dominated for others. In each condition the participants were required to choose one option. The asymmetric dominance effect was measured by comparing the choice preferences in percentages between the competitor and the target with and without the choice of the added decoy.

In the condition where participants chose for themselves they were told to imagine they were in need of a camera memory card, while when asked to choose for others they were asked to imagine they needed to advise a friend who was in need of a camera memory card.

The offers were designed to be similar to those used by Hubert et al in their original 1982 study of the asymmetric dominance effect, with first a binary choice set to set a base line of the popularity of each choice and then adding a third decoy option into the product category.

Brand familiarity has been noted to reduce the asymmetric dominance effect (Ariely, 1995), as if those who have great prior product knowledge can easily access information from memory that is irrelevant to the study and view the product in a more holistic way. If the decision makers already has great familiarity with one or more of the products then he will evaluate them asymmetrically and will automatically add set greater value to the attributes he knows and has gained a liking for. This means they are more likely to have a strong prior preference and are less likely to fall on heuristics and the asymmetric dominance effect. Therefore no brand names were mentioned or used as attributes. The products chosen were memory cards for a camera, a product many use and buy but few have strong personal prior preferences which means attributes should be judged symmetrically, furthermore fashion fluctuations are minimal. Memory size was the one attribute described in the offers in the choice set as well as price.

Competitor: A camera memory card with 69 GB storage for \$80

Target: A camera memory card with 40 GB storage for \$60

Decoy: A camera memory card with 30 GB storage for \$65

## This study

The goal of this study is to test two hypotheses. One, that the asymmetric dominance effect holds true with the product offer set forth (H1.) And two, in line with Chang et al. (2012) and Crosetto and Gaudeul (2014), that when choosing for a friend it should lead to a stronger asymmetric dominance effect (H2).

*H1: The asymmetric dominance will hold and the addition of a decoy A- will change the percentage of times A and B are chosen.*

*H2: Choosing for a friend will increase the asymmetric dominance effect that was shown in H1.*

## Results

Analysis of variance revealed that the number of options had an effect on how many participants chose the target ( $F(1, 386) = 4.76, p=.03$ ) when the options were three the participants chose the target more often than when the options were two (see figure two). There was no difference in how many chose the target depending on whether they were choosing for themselves or for a friend ( $F(1, 386) = 0.53, p=.47$ ). Figure two shows the effect of the number of options appears to be stronger when participants chose for themselves than when they chose for a friend, but that interaction was not statistically significant ( $F(1, 386) = 1.12, p=.29$ ).

Using independent samples t-tests, when participants chose for themselves and also when they chose for friends, revealed that participants chose the target more often when there were three options than when there were two when they chose for themselves ( $t(176) = 2.30, p=0.023$ ). But when the participants chose for a friend there was no difference in whether they had two or three options ( $t(185) = 0.78, p=0.44$ ). Consequently, H1 was supported, that is the asymmetric dominance effect was reproduced when participants chose for themselves. H2, however, was not supported, participants were actually less likely to succumb to the asymmetric dominance effect when choosing for a friend.



Figure 2: Percentages of participants who chose the target for self or friends

## Discussion

The research has theoretical implications for the asymmetric dominance effect in decision making, self-other differences and on how value is context based. The asymmetric dominance effect has up until now been studied with regard to choosing for oneself, both in marketing and other contexts as well as measuring its strength (Ariely & Wallsten, 1995; Crosetto & Gaudeul, 2014; Huber et al., 1982, 2014; Simonson, 1989). Research has shown that differences between choosing for oneself and choosing for others varies in many situations and with context. As well self-other differences have been found in relationship with the compromise effect (Chang et al., 2012). The purpose of this paper was to ask a question that has not been answered by the literature and explore the relationship between the asymmetric dominance effect and self-other differences in choices.

The study's results show that the asymmetric dominance effect influenced participants when choosing for themselves which is consistent with previous findings (Ariely & Wallsten, 1995; Crosetto & Gaudeul, 2014; Huber et al., 1982, 2014; Simonson, 1989), But the results also showed that when participants were asked to choose for a friend it mattered little if there were

two (target and competitor) or three choices (target, competitor and decoy), the results were almost the same. That is inconsistent with what could be expected based on previous findings for the compromise effect (Chang et al., 2014).

The literature on choosing for others, and choosing for others with regard to the compromise effect, seemed to point towards the uncertainty included when choosing for others should have led participants to be influenced by the decoy (Chang et al., 2012). Instead it seems as if the uncertainty, accountability for another, thought of having to justify the choice and wanting to reflect well on the other person may have pushed the participants to put more effort and thought into the choosing process. It would seem that the participants compared all three choices, and after establishing the dominance of the target over the decoy they compared the target and the competitor and chose the similar to how they would have chosen for themselves.

Even though loss aversion is stronger when choosing for self rather than others (Novemsky & Kahneman, 2005), other factors seemed to have more influence. To understand the underlying processes of how decision makers prioritize and think when choosing for others more research must be done.

This study is not without limitations. First, though the scenario presented to participants was simple and similar to real life decisions it was still imaginary and should not be overgeneralized to describe actual consumer behaviour. In store experiments would be wise to compare and contrast to laboratory conditions, where involvement of participants can be vastly different in an actual shopping situation. Second, there was only one choice set with one type of product, which may limit the validity of the results. It would be wise to reproduce the effect with different choice sets and product types.

In future research the study should be replicated to see if the results stand. Furthermore, influence of how the closeness of the relationship to the other for whom the decision maker is choosing. Choosing for a stranger, a colleague or a close friend has vast differences in involvement and motivation (Chang et al., 2014). Moreover, it would be interesting to push the idea of decision makers fearing social punishment and wanting to protect their image by seeing if their choice behaviour would change if the person for which the choice is being made did not know who was making the decision; that is whether the identity of the decision maker was private or public. Additionally, researching the effects on the decision maker on whether expected the feedback given by the other person would be private or public.

The differences in decision making when choosing for another with decision maker's own money or the other person's money should also be explored. In these two scenarios the accountability level is not the same and could influence the amount of cognitive work the decision maker puts into the choice.

## References

- Ariely, D. (2008). *Predictably irrational*. New York, N.Y.: HarperCollins Publishers.
- Ariely, D., & Wallsten, T. (1995). Seeking subjective dominance in multidimensional space: An explanation of the asymmetric dominance effect. *Organizational Behavior and Human Decision Processes*, 63(3), 223-232. doi:10.1006/obhd.1995.1075
- Blustein, J. (1999). Choosing for others as continuing a life story: The problem of personal identity revisited. *The Journal of Law, Medicine and Ethics*, 27(1), 20-31. doi:10.1111/j.1748-720x.1999.tb01432.x
- Chang, C., Chuang, S., Cheng, Y., & Huang, T. (2011). The compromise effect in choosing for others. *Journal of Behavioral Decision Making*, 25(2), 109-122. doi:10.1002/bdm.720
- Choi, J., Kim, B., Choi, I., & Yi, Y. (2006). Variety-seeking tendency in choice for others: interpersonal and intrapersonal causes. *Journal of Consumer Research*, 32(4), 590-595. doi:10.1086/500490
- Crosetto, P., & Gaudeul, A. (2014). *Testing the strength and robustness of the attraction effect in consumer decision making* (Jena Economics Research Papers 2014-021). Jena, Thuringia: Friedrich Schiller University and Max Planck Institute of Economics. Retrieved May10, 2015 from <http://www.econstor.eu/bitstream/10419/104571/1/796700958.pdf>
- Frederick, S., Lee, L., & Baskin, E. (2014). The limits of attraction. *Journal of Marketing Research*, 51(4), 487-507. doi:10.1509/jmr.12.0061
- Hedgcock, W., & Rao, A. (2009). Trade-off aversion as an explanation for the attraction effect: A functional magnetic resonance imaging study. *Journal of Marketing Research*, 46(1), 1-13. doi:10.1509/jmkr.46.1.1
- Huber, J., Payne, J., & Puto, C. (1982). Adding asymmetrically dominated alternatives: Violations of regularity and the similarity hypothesis. *Journal of Consumer Research*, 9(1), 90. doi:10.1086/208899
- Huber, J., Payne, J., & Puto, C. (2014). Let's be honest about the attraction effect. *Journal of Marketing Research*, 51(4), 520-525. doi:10.1509/jmr.14.0208
- Kahneman, D. (2011). *Thinking, fast and slow*. New York: Farrar, Straus and Giroux.

- Luce, R. (1977). The choice axiom after twenty years. *Journal of Mathematical Psychology*, *15*(3), 215-233. doi:10.1016/0022-2496(77)90032-3
- Novemsky, N., & Kahneman, D. (2005). The boundaries of loss aversion. *Journal of Marketing Research*, *42*(2), 119-128. doi:10.1509/jmkr.42.2.119.62292
- Polman, E. (2012). Self–other decision making and loss aversion. *Organizational Behavior and Human Decision Processes*, *119*(2), 141-150. doi:10.1016/j.obhdp.2012.06.005
- Sedikides, C., Ariely, D., & Olsen, N. (1999). Contextual and procedural determinants of partner selection: Of asymmetric dominance and prominence. *Social Cognition*, *17*(2), 118-139. doi:10.1521/soco.1999.17.2.118
- Simonson, I. (1989). Choice based on reasons: The case of attraction and compromise effects. *Journal of Consumer Research*, *16*(2), 158. doi:10.1086/209205
- Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, *185*(4157), 1124-1131. doi:10.1126/science.185.4157.1124