Superstitions and cohesion to decision making

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# Abstract

This paper attempts to delve into the significance of superstitions and it’s branching into different decision-making patterns. The existence and the persuasion to follow superstitions is prevalent in human culture since time immemorial, however although they’re often regarded as obstacles to rational decision-making, at times, they can also augment confidence and help persons face their fears untethered. This paradoxical nature and different abilities to perceive superstitions may give rise to various consumer behaviors and how marketeers can tap into the potential of these psychological constructs to make more appealing brand images. Decoding a person’s decision-making approach increases the susceptibility of devising a better course of action in situations. The paper also explores the involvement of schemas, heuristics and selective distortion in relation with the above-mentioned subject.

Keywords: superstitions, consumer behaviors, decisions, brands

**1. Introduction**

Superstitions are based more on cultural habits than conscious belief [1]. They are orally propagated in our daily lives to a point one can barely even notice them. Be it phrases like “Break a leg” or carrying a lucky charm. These preconceived notions intend to give a person an illusion of being able to control or manipulate future events through menial actions, further branching into tendencies of self-efficacy. They need not only be associated to out worldly phenomena like the paranormal, but a form of it is also reflected in the day-to-day decisions we make. To account for their significance, superstitions have persisted since time immemorial finding a notable space in cultures ranging from the Egyptians, Assyrians to the Greeks too. However, traditions and superstitions are often confused to be the same but on the contrary traditions can be called superstitions but not the other way around. This is because traditions are intricately interwoven with culture, religious practices, devoid of logic and rationales, on the other hand superstitions are regarded as “notions maintained despite evidence to the contrary”

We remain fixated on certain choices because of factors called “luck”. Luck, again is one side of the coin of superstition. The rigidness to which is immensely reflected in the perspective. To elaborate further, in case of a specimen who lays their belief in superstition, they will tend to associate the occurrence of future events with the present [2]. This prognosticator-like attitude may severely impact the specimen’s problem-solving abilities. Using exhaustive studies and knowledge of the specimen’s inclination on superstitions, the experimenter might also be able to determine the most probable solution chosen out of several equally apt solutions available at their disposal, during times of circumstances, thus deciphering thinking patterns.

On the other hand, a specimen not laying belief in the same, tends to hold a more pigeonhole approach, susceptible to a rather pragmatic inclination. Cognizance of this can assist in prediction of economic decisions and dynamics of various macroeconomic environments.

For example, superstition believers have gained more traction in communist countries. This is a testament to the fact, how a political regime can originate from the thought process pertaining to superstitions. [3]

These mental frameworks implicitly play an important role in our day to day purchasing decisions and have an active underlying role in consumerism.

**2. Consequences of Superstitions**

2.1. Creation of a Psychological Bias

Repeated encounters with a problem tend to the narrowing down of approaches to find a solution. This can be a consequence of the creation of a psychological bias or the development of a “I did it last time, must work this time” intuition.

This is what companies base their brand building on, since it is easier to appeal to the existing mindset of the audience than inculcate new beliefs. All they have to do is make a one-time intensive investment into reaching the gaze of the consumer base, through market researches, surveys, evaluating competitors and their shortcomings. Subsequently, consumers base a lot of their preferences on the first-time experience of the product/service. [3]. A pleasant experience instills a bias which compels them to have an overall good impression of the product/service. This bias is nothing short of a by-product of superstition created in the mind of the consumer. Once settled in the mind, these preconceived notions become the consequences of various decisions. It seems only natural to perceive superstitions to branch out into a plethora of thought patterns, assuming these biases to serve as a foundation. [4]

2.2. Augmentation in Performance (at times)

Although the existence of superstitions might seem redundant, instances of a surge of optimism, positivity and a sanguine attitude can be observed in individuals. Though, rather an illusion is created before the individual, logically the more people take confidence in their inherent abilities to get through a task, the better they can perform and hence yielding desirable results [5]. Studies of Buhrmann and Zaugg (1981) cited that superstitious behavior patterns are observed in highly acclaimed basketball players and teams too.

It can be withdrawn that enforcement of superstitions and performance of the individual work in a positive loop, and hence create a psychological bias for the person in question during future recurrences too. [6]This affinity towards superstitions is manifested in various forms by association with tangible objects such as lucky charms or repetition of a routine. This physical manifestation soon emerges to create a dependence.

2.3. Self-Efficacy

As the term iterates “self”, it basically leads up to the meaning of having control or authority over one’s own consequences. Superstitions are known to inculcate a sense of self-efficacy by maintaining a link between present and future events. [7] This illusion can either prove to be detrimental or augment the individual’s performance (as mentioned in the section above). Dysfunctional persistence and helplessness are causes of extremities of self-efficacy. To sum up, belief in superstitions can implore one’s self efficacy to extremities, which can, at times lead to hampering one’s decision-making abilities to a great extent. [8]

2.4. Functional Fixedness

A cognitive bias called functional fixedness has an effect on a person's capacity for creativity. Because function fixedness limits creativity, it is sometimes used to explain why someone becomes unable to use something in more creative ways than they are typically intended to. Functional fixedness is a condition in problem-solving psychology that impairs a person's capacity for originality and creativity when tackling problems. A cognitive bias known as functional fixedness has a detrimental impact on a person's capacity for problem-solving and innovation. The bias prevents a person from generating practical answers to their situation because it forces them to view it from only one particular perspective, thus serving as a bold, high wall. Functional fixedness can have an impact on a person's academic performance, professional development, and personal relationships. [9] When trying to solve a problem, a person's creativity is constrained and their prospective ideas are limited by their incapacity to see alternate alternatives, otherwise in popular terms known as “the inability to think outside the box”. This creates a myopic view in the mind of the consumer, psychologically restricting their choices.

2.5. Placebo Effect

The Placebo Effect is viewed as a superstitious response towards inert treatments [10]. This psychological phenomenon is known to generate neurological and neuropsychological responses which are triggered indirectly by external stimuli. It is known to significantly alter behavioral actions by simply making oneself believe what they perceive to be true. Research has indicated that the placebo effect is known to dominate the thought process of a superstitious person rather than a non-superstitious one. The foundation of both relies on the single fact of effectiveness of the solution [11]. They nurture a reward-reaction mechanism and are perpetually applied by the subject until the duration of obtaining the desired results lapses. [12]

**3. Heuristic problem solving (Kahneman & Tversky, 1982)**

One of the most essential steps to approach a problem is to be open to a horizon of solutions and to gauge every solution with utmost scrutiny leaving aside any biases. One such natural and practical method is the Heuristic approach to problem solving. Often called mental short-cuts, it largely relies on intuitive judgements, hunches, intuitions and past experience. The primitive structure of “schemas” are involved in origin of these judgements. Schemas are mental structures that represent organized knowledge about a concept, object, event, or situation. They are essentially cognitive frameworks that help us categorize and interpret incoming information quickly. These cognitive tools do not guarantee perfect and error-free judgements but rather focus on offering quick, hastle-free judgements as facing a multitude of options can be deliberating for a person. Hence, a major element of heuristic approach are psychological biases and pre-existing superstitions.

Heuristic problem solving has two branches:

3.1. Availability Heuristics (Tyler & Cook, 1984)

This approach benefits from the easiest solution available at one’s disposal. More often than not, the easiest solutions are based on the thoughts and opinions we need not take the effort to construct, analyze and winding back to square one in case of a miss, thus summing up to be a very computationally expensive process. [13] Hence it resorts to the ones which are the most closely appealing to the superstitions set into the brain since one’s upbringing. Availability heuristics at times have often caused overestimation of occurrence of incidents having a very low probability.

For e.g; People often fear getting struck by lightning during a thunderstorm but measuring the actual probability of its occurrence makes one realise the chances of this event occurring are nothing more than one in a million. Such assumptions and dependence on availability heuristics makes one adopt a presumptuous mindset, thus creating a bias.

3.2. Representativeness Heuristics (Kahneman, D. and Tversky, A., 1972)

The prediction and consideration of an event using only the limited knowledge of an event without the prior probability of its occurrence, falls under representativeness heuristics. This occurs through mentally tracing non-existent pathways of a theory via the aid of pre-existing notions and past experiences, this is a more calculated approach compared to Availability Heuristics, backed by rationality. It uses relational, grouping and capabilities of comparison to draw links among different concepts and groups as we try to grasp at various links to reach conclusions.

This ability is known to ameliorate over the years as the individual approaches adulthood. [14] this is suggested by an experiment conducted Kahneman and Tversky (1973), it involved the inclusion of adult participants presented with a comprehensive description of a person pursuing engineering as an occupation supposedly. They were further informed that the probability of picking an engineer among the sample space was only 30% as compared to 70% of that of a lawyer. It was noticed that people preferred foregoing the chances of considering probability or logic in order to fit characteristics under their pre-existing notions.

3.4. Anchoring and Adjustment Heuristics (Tversky and Kahneman, 1974)

This type of heuristic heavily relies on the available fact available at the disposal and looks at the other option only in comparison to the existing alternative. For example, when we look for a more viable alternative among diesel or petrol, we often reject the former due to the fact that it utilizes more air for combustion, elevates the number of chemical reactions and consequently causes less pollution. However, we are falsified in the fact of assuming petrol to be a good fuel because of the negligence to the large scale emission its combustion releases on a day-to-day basis.

These heuristics more or less are fitting into the definition of superstitious beliefs that was iterated earlier. A possible was to analyse this can be linking the umbrella term of “superstitions” to accommodate the above two types of heuristics. Every experience creates a lasting impression. Consider an example, the compromise of traffic laws in a populous country can lead to a detrimental rabbit-hole of road accidents and dissatisfaction among users. Lack of check-posts can cause drivers to evade main routes and traverse through unmonitored laws, thus acting on their availability heuristics by choosing an option easiest available at their disposal to elude the imposition of fines. Similarly, imposition of a nominal fine or giving the heave-ho to violators will create less-lasting experiences in minds of violators having little or no regard for traffic discipline. Thus they will associate every violation like their previous impact less punishment, relating it to grouping via representativeness heuristics.

4**. Understandings derived from these concepts**

This knowledge about the consequences of superstitions combined with our existing reservoir of knowledge about heuristic problem solving can be correlated to pan out branches of decision making.

When a consumer is presented with two products A and B where both the products are identical and the probability of each being chosen is equal. To predict the inclination of the consumer towards any of the products, a marketeer would consider psychological factors such as consumer’s motivation, learning, socialization, attitudes, and beliefs. Here, a primary driving factor can be **selective distortion** the perceptual process which occurs when people subconsciously try to make new information fit their old ideas about something. This happens through creation of “schemas”, which also form the bases of heuristic problem solving.

If product A has a brand image that fits into the consumer’s schema, then it is likely they incline towards A but in situations when two products A and B are equally new and identical the consumer prefers to take a “chance” and this is influenced by the following possible existing factors:

* Perception of luck and control: superstition beliefs might find their way into this situation as luck is considered as an irrational construct. A person who believes in fortunate charms, for instance, could feel more at ease making a purchase if they have their lucky object on hand. On the other hand, they can refrain from buying on days or hours they believe to be unlucky.
* Decision-Making Bias: Beliefs in superstitions can produce biases in judgement. Instead of focusing simply on objective considerations like quality or price, consumers may place an excessive amount of weight on superstitious beliefs when evaluating goods or services.
* Brand and Product Associations: Some brands or goods may come to be linked to superstitions. Superstitions may be included into business marketing plans to evoke strong feelings in customers. A product might be promoted, for instance, as a lucky charm that will bring the consumer luck.
* Timing of Purchases: Superstitions may affect a consumer's decision to make a purchase. For instance, during holidays or other special occasions, customers can be more likely to purchase goods they think will bring them luck or shield them from bad results.

**5. Existing Application of the concept:**

Superstitious beliefs are frequently used by brands to develop compelling marketing campaigns that connect with customers and appeal to their emotions. The following are some typical marketing strategies used by companies to appeal to superstitious beliefs:

* Lucky Charms and Symbols: Businesses include good luck-related charms, motifs, and symbols on their products and packaging. Horseshoes and four-leaf clovers, as well as fortunate numbers and animals, are a few examples of these symbols.
* Limited Editions & Special Dates: On days seen as lucky in various cultures, such as the Chinese New Year or Friday the Thirteenth, brands release limited-edition products or special promotions. Customers are enticed to buy products connected to the auspicious date because of the exclusivity this provides.
* Interactive campaigns: Companies design promotions that allow people to participate in superstitious activities. A company might, for instance, run a competition where people share their lucky customs or play a game of chance to win prizes.
* Brands create tales that centre on superstitions and good fortune. Customers who connect emotionally with these tales are more likely to recall and interact with the brand.

For e.g; Brands like Cadbury heavily capitalize on the superstition that consumption of something sweet before an auspicious occasion brings good fortune, hence majority of their marketing campaigns are centered around this idea.

* Rituals and Traditions: Brands may develop new rituals or traditions that are connected to superstitions or associate themselves with them. As customers include the brand in their own routines, this may boost brand loyalty.

**6. Experimental Survey: (Refer Appendix A)**

**Method:**

**Participants and Design**

We conducted a survey among 51 University students (21 males, 30 females) aged above 18 years to trace their adherence to superstitious beliefs and testing with their insights during a problem-solving situation.

When asked about how many persons believe in superstitions the following statistics were obtained:

**Fig 1: A question displayed in the questionnaire stating “Would you call yourself to be a believer in superstitions?” yielded the following response.**

**Fig 2: A question displayed in the questionnaire stating “How frequently do you think superstitions affect your problem solving abilities?” yielded the following response.**

In addition to this, the following question was surveyed to assess how people apply their superstition beliefs and react in situations or cases of options available at their disposal.

**Fig 3: A question displayed in the questionnaire stating “Consider a lottery, are you likely to pick a ticket that has your “lucky” numbers or a randomised one?” yielded the following response.**

**5. Results**

Calculation of the extent of association between belief in superstitions and option chosen in the above mentioned question which is either siding with luck or relying on a randomized option, using the chi-squared test of independence.

Null Hypothesis: There is no association between belief in superstitions and course of action chosen by the sample. If the p value obtained via the test is less than 0.05, we will reject the null hypothesis.

Alternative Hypothesis: There is association between belief in superstitions and course of action chosen by the sample.



The formula used for obtaining Expected Values is:

Expected Value = $Row Total×Column{Total}/{Overall}Total$



Here;

 O- Observed Value

 E- Expected Value

The degrees of freedom of df is calculated by;

 df=(Number of rows-1)×(Number of columns-1)

The p value obtained through the case is **0.04096**

Since 0.04096<0.05, the Null Hypothesis is rejected

Hence, there is exists an association between superstitious beliefs and the course of action adopted by a person.

Statistically proven above, this degree of association between the two heavily hampers a decision making pattern. While a believer would first consult their ethics, a non-believer relies on shrewd practicality and rationality. Theoretically, believers would incline to prefer their lucky numbers which may be numbers they share a history with, maybe it could be a significant number like a birth-date. All these traces to frame the “lucky” number are purely based on past experiences, faith, irrationality and simply chalking up to conclusions. There is no credulous or concrete proof leading to this framing, hence the involvement of a superstitious perspective. Secondly, a believer may also choose a randomized number, over the lucky ones as rationality precedes their superstition beliefs, leading to the fact that the influence of superstitious thoughts is absolutely controllable. On similar lines, some non-believers may have also opted for lucky numbers, displaying a risk-taking attitude and leaning towards luck as a lottery such as in this case is assumed to be an experiment free of any external influence. Contrarily, non-believers who chose randomized numbers stay strong on their traits of rationality and pragmatic thought patterns.

**5. Conclusions**

This reflects back to the distinction in the decision making patterns observed in believers as well as non-believers of superstitions. A believer may look at things at a narrower perspective as the person’s thought process becomes more encapsulated bounded by their ethics and some untold factors we do not question. These are termed as Superstitions. They can take multiple forms through various mediums and reside in almost all minds, the only difference being a person’s extent of controlling their expression and influence in our everyday decisions. The existence of these beliefs in our lives is undeniable, but the line of demarcation between a believer and non-believer is simply that of the control established over the prevalence, priority and dependency that one opts.

Moreover, certain people function on intuitions whereas some on pragmatism. These underlying thought processes although stemming from the same belief system branch out into a plethora of perspectives and problem solving approaches, and to decipher these a detailed sequential study into the origin and how they have established a key position in human civilization is a pressing need. In closing, the paper has attempted to explore superstitions, the predominant effects of the same and the involvement it exhibits in thinking patterns and decision making approaches people adopt.

## Appendix A

The survey responses as well as the questionnaire of the experiment conducted are enclosed in the excel sheet, the link of which is mentioned below.

<https://docs.google.com/spreadsheets/d/1spyjIbKzuUgId0j8uq_pUIaLRmUJ-hDzEQ5jIdjwdzw/edit?usp=sharing>

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