

What is loss aversion economics essay



According to the decision theory in economics, loss aversion is commonly referred to people's tendency to mitigate losses as much as possible to acquiring gains. Studies suggest that, psychologically, losses are twice as powerful as gains. Therefore loss aversion leads to risk aversion when people evaluate the possible gain (a risk averse person when presented with options would accept the option less in preference to the risky option) this is because most rather than make gains, they would rather avoid losses. This further explains the concave curve shape of the prospect theory utility graph; conversely people prefer to mitigate loss. Loss aversion can also be explained by sunk cost, economist defines sunk cost as costs which do not vary according to a particular decision. For example Kehinde pays 10 pounds for a shoe, and she develops blisters on her leg and continues to wear the shoe in order not to lose 10 pounds, relatively loss aversion implies that one who loses 10 pounds will lose more satisfaction than another person who gains 10 pounds. It is central to know that regardless of how a transaction is framed that is loss or gain it has a relevant effect on consumer behavior. However traditional economists consider this "endowment effect" (people are willing to pay more to retain for something they will own than to obtain something owned by somebody else) and any other effect of loss aversion is irrational.

The articles to be discussed will explicate further on the concept of loss aversion that is why people seem to hate losing more than winning by discussing how convincing the two studies are, one article is on "abstract reward and punishment representations in the human orbitofrontal cortex" and the other article is on "modeling loss aversion and reference

dependence effects on brand choices". We shall further consider what criticisms may be made to the two studies and consider to what extent their conclusions overlap, and what aspects of each study are unique to the approach used and what can be gained from that approach which would not be possible otherwise.

The study on the abstract reward and punishment representation in the human orbitofrontal cortex is based on neuroscience methodology and this we can say is experimental based on observation. It is measured in human subject by doing a visual reversal learning task in which choices of the correct stimulus led to monetary reward and incorrect choice of the stimulus led to a monetary loss. Neurophysiological investigations in non-human primates revealed that the reward value of taste, olfactory and visual stimuli is signified in the orbitofrontal cortex and some neurons respond only when reinforcement contingencies changes. Like PET (Positron Emission Tomography) imaging studies found that OFC can also be activated with monetary reward and hesitates on whether abstract punishment is activated by OFC. Monetary losses and gains were distributed ranging from rewarding stimulus (S+) and punishing stimulus (S-), choosing S+ larger reward and S- smaller punishment. The results showed that when the reward acquisition phase were compared to the punish reversal, there was a significant activated voxel in the medial OFC which was a genuine response to the receipt of a reward and the left medial OFC activation was correlated with the magnitude of the reward after the stimulus has been selected. Finding further indicated that an increase in neural activity in the medial OFC is related to magnitude of the reward. Comparing the punishing outcome of the

brain activity, there was activation in the right hemisphere, the lateral OFC, which was correlated with the magnitude of punishment as regards the stimulus selected. Findings from Edmund (2000) also realized that the ventral or object-processing visual stream, taste, olfactory and somatosensory inputs sends information to the orbitofrontal cortex. Further, it was seen that the orbitofrontal cortex was activated with pleasant touch and by rewarding and aversive taste. There was direct evidence that the reward value taste is represented in the orbitofrontal cortex and the responses are modulated by hunger. In agreement with this findings G Thul, et. al(1997) found that the orbitofrontal cortex is activated with a monetary reward . In overall, this indicates that some sense organs respond when a consumer gains and loose, and the magnitude of response of the nerves is increased or decreased according to the size or extent of gains or losses.

The study further reported that the lateral OFC is more involved in representing the punishing consequences of continuing to select the previously rewarded stimulus following reversal, this justifies the difficulty in reversing responses to the old S+ following reversal and this explains why consumers feel more pain when faced with a loss compared to when they realize a gain. Furthermore, Elliot et. al (2000) reported a disassociation between the medial and lateral OFC saying that the medial OFC is involved in monitoring and holding in mind reward values and direct evidence indicates the medial OFC was activated by monetary reward and showed less bold signal relative to the baseline following the punishment of monetary loss. This explains further the reason why people seem to hate losing more than they love to win as the medial OFC is acclimatized to receive reward and

thus when the occurrence of a punishment occurs, the consumers feel more hurt as a result of the loss unexpected. Also the activation of the lateral OFC even after a previous reward is reflective of the punishment through the monetary loss felt.

However, some critics were found, it was recognized that the region as a whole receives highly processed sensory afferents which participates in high-level cognitive and emotional processes (Ongur and Price 2000). As some other voxels like the inferior prefrontal sulcus was activated during reward reversal and punishment acquisition and this may be involved in inhibiting inappropriate behavioral strategies, such as to switch behavior. This therefore means that, it cannot be emphatically concluded that the activation of those nerves were as a result of the reward or loss, but other emotion related feeling led to the choices selected.

The second article which is modeling loss aversion and dependence effects on brand choice illustrates the notion that consumers often evaluate product attributes relative to some reference level and not just in terms of absolute attribute levels. These suggest that changes from these reference points may be valued differently depending whether they are gains or losses relative to some reference point. It is commonly known that consumers use a reference price when assessing price from different ranges of price. That is that consumers put more emphasis on price above the reference price (perceived losses) than prices below it (gains) (Marko and Marje 2009).

Dynamic pricing problem reported that consumers purchase decisions are dependent or represented by their past purchase price called reference price, and it is assumed that consumer reference price is a weighted average

of the lowest and last price. Gains or loss perceptions with respect to this reference price are based on consumer purchase choices (Javad and Ionna 2009).

One important characteristics of the value function of a single attribute case is loss aversion. The value function is steeper for losses than for gains, in order words a loss decreases value more than an equivalent sized gain will increase value. The illustration from the paper considers the product orange juice with two attributes price and quality, with price labeled so that a lower price is better and three reference point p q and r. This reference point are all equivalent on quality but differing on price, introducing product x and y, when evaluated from a reference point q, a consumer is indifferent as to any of the two. Therefore loss aversion suggests that indifference curves are steeper that is they slope downward when they represent losses relative to the reference point. And when evaluated from reference point r, the consumer prefers x, because y has a disadvantage (loss) on price and x loses its price advantage. So the shift in the reference point removes x price advantage and create a price disadvantage for y of the same magnitude. This loss aversion indicates that the new disadvantage of y outweigh the forfeiture x's price advantage inferring on the reason why consumer hate losing than they enjoy winning.

The findings indicated that when quality and prices are higher people steal share from lower price, but when prices are lower there is a little switching down by consumers. The intuition of loss aversion is explained by asymmetric response to price promotion as the case study for orange juice market which was used where Tropicana Regular, the lower price and Minute
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Maid, the higher price and the reference brand which was Citrus Hill. Minute Maid could draw more consumers to their product by a 12 percent cut which is sufficient to move the brand on the same indifference curve as the reference brand. While Tropicana Regular was low in quality and could not match the reference brand therefore still governed by loss aversion for quality. Since the loss aversion coefficient for quality is much greater than that for price, the equivalent price cut leaves Tropicana Regular still relatively unattractive. Therefore implies that consumers are loss averse to quality and hate to suffer losses as regards quality than enjoy gaining or winning a lower price for a low quality product relative to their reference brand. However criticisms has been made saying that the definition of the reference brand is imperfect and further improvements can be made as the justification to the reference brand is just simple operationalization. Also the model assumes homogeneity in response to marketing mix variables but the model captured heterogeneity in household's response to marketing variables therefore suggesting that estimates of loss aversion coefficient will decrease when such heterogeneity is modeled. In addition homogeneity in each loss aversion coefficient was assumed for each attribute but it would be better to allow them vary across households and observed that the degree of loss aversion may be common across individuals and some may be individual specific. Lastly the model did not allow test of diminishing marginal sensitivity and therefore it is important to note that relative and absolute evaluations must play a role in consumer choice.

Conclusion:

Both approach to assess the degree of loss aversion were unique as the neuroscience explains that different nerves in the brain explains the response to stimulus of receiving a reward or a punishment and the continuous act of selecting previous stimulus explains the degree of loss aversion. While the traditional approach explains the degree of loss aversion as regards quality and price and noted that the degree of loss aversion is much more related to quality than price. Both studies overlap in the sense that they were able to point out the extent of loss aversion and emphasized that it is the magnitude of the loss or gain obtain that accentuates the responses of the nerves for the neuroscience and the choice to be made by consumers for the traditional approach. The critics from the paper has we have seen earlier for the neuroscience investigation does not give a conclusive fact as other voxels are been activated during the process. So the activation of the supposed voxels signifying loss or gain is compromised with other related emotions that are explained as inappropriate behavior strategies that cause switch in consumer behavior. And for the traditional approach, the critics referred that the reference brand may vary between consumers and therefore we cannot conclude that all consumers place their reference brand based on recently purchased brand and therefore we are not able to specify the degree of the loss aversion to different individuals.

In summary, the gains from both study revealed to us that there is a resulting effect of whatever stimulus or choice been selected by consumers and this could be a gain or a loss and the degree or extent of gains or loses is felt by consumers as it shows how much they hate to lose to winning.