

The Involuntary Nature of Beliefs

By Caroline Jiang

Author Bio

Caroline Jiang is currently a sophomore at The Bronx High School of Science in the Bronx, New York. She is a writer and a poet with over ten collections of work (one consisting of more than seventy pages), and looks forward to exploring the breadth of her voice. She enjoys spending time with her family and her dog. She also loves delving deep into new things. Currently, she is immersed in the history of Ancient Rome and the complexities of the Classics. She also aspires to explore computer science with interdisciplinary lenses; learn multiple languages; learn Ecclesiastical Latin and Colloquial Latin after completing her current studies of Classical Latin; and read into philosophy.

Abstract

Beliefs are fundamental to an individual's behavior and identity, yet they cannot be picked and chosen by an individual. This paper reviews the role of the individual's voluntary choice and control in the formation of beliefs. It is concluded that the formation of beliefs, consisting of five main stages (Connors & Halligan 2017), is involuntary. Cognitive biases and heuristics and external influences are innate features of the human mind and the nature of beliefs, rendering extensive control over beliefs impossible. Moreover, conscious awareness of involuntary influences is not thorough and does not induce will or control over changing and interfering with the process of belief formation. Though the limitations of the mind and the inability for control seems unfavorable and undesirable, developing an open and adaptive mindset proves to be even more significant. Acknowledging the involuntary nature of beliefs cultivates a perspective that allows for effective examination upon the execution and application of beliefs.

Keywords: Beliefs, Belief Formation, Cognitive Biases, Consciousness, Control, External Environment, Mindset, Heuristics, Volition

Introduction

The desire for control is deeply rooted within human nature. Rather than passive observers, humans are casual agents in their interactions with their environment, and control allows them to optimize rewards and minimize punishments (Leotti et al., 2010). People do not enjoy being, or even the mere prospect of being, held hostage by other influences other than themselves. However, during stressful situations, there is less room for deliberate reflection and controlled response. Instead, an internalized script formed from beliefs is promptly enforced. Given that beliefs dictate how people think and respond in their environment, do individuals themselves have a say in controlling the formation of beliefs? In this paper, I will analyze the process of belief formation, demonstrating how this process is involuntarily shaped by internal factors, such as confirmation bias and the availability heuristic, and external influences, including cultural values and practices. Despite this involuntary nature, an adaptive mindset proves as beneficial for executing individuals' will after the formation of beliefs.

Belief Formation

Beliefs can be considered as propositions that one regards as true or probably true, even without full intellectual knowledge (Seitz & Angel, 2020). Beliefs are fundamental to the reality of individuals, allowing them to develop a personal affective stance and interpretation of their environment (Seitz & Angel, 2020). Beliefs guide behavior and the decision-making process, especially when decisions have to be made instantaneously and in the spur of the moment (Leicester, 2008). Individuals can trust their beliefs at any given time, despite incomplete or possibly unreliable knowledge, to react quickly and accordingly.

The formation of beliefs is an involuntary process. There are five main stages that account for the process of forming beliefs (Connors & Halligan 2017). The first stage is a precursor that shapes the content of a future belief (Connors & Halligan 2017). This involves direct experience or any external influences. The second stage is a search for meaning to account for the precursor (Connors & Halligan 2017). Meaning is found from pre-existing beliefs, emotions

that arise, and the surrounding environment. The third stage is an evaluation of the belief to maintain internal consistency (Connors & Halligan 2017). This evaluation is based on the degree of satisfactory explanation for the precursor, the positive or negative mood of the subject, and the coherence of the belief associated with pre-existing beliefs. The fourth stage is accepting and holding the belief (Connors & Halligan 2017). Beliefs may be held with varying levels of conviction, depending on the evaluation criteria of the third stage. The fifth stage is the consequential effects of holding the belief (Connors & Halligan 2017). The higher level of conviction and the greater the relevancy of this newly formed belief in the environment may result in radical changes in the subject's cognitive processes, reality, behavior, and even memory. Despite this seemingly deliberate process, subjects can still remain unaware that they hold a particular belief. This kind of belief will simply be assumed to be an accurate view of reality, even without the subject's will or conscious choice to do otherwise.

Cognitive Biases

Belief formation suffers from inherent limitations, namely biases. Throughout this process, the mind takes certain mental shortcuts of heuristics, cognitive strategies that allow for quick judgments without deliberation, and biases to reduce cognitive efforts (Tversky & Kahneman, 1974). Cognitive biases, the systematic but flawed patterns of responses in judgment and decision-making (Wilke & Mata, 2012), prove that beliefs are susceptible to involuntary processes beyond an individual's immediate control. I will outline the involuntary nature of several common biases: confirmation bias, anchoring bias, and representativeness heuristic.

Confirmation bias is the tendency to search for information that supports existing beliefs and ignore or distort data contradicting them to create a consistent internal environment (Peters, 2022). Confirmation bias is prominent throughout the process of belief formation, as pre-existing beliefs and perceptions dictate many of the stages involving internal consistency and reasoning of belief. This bias is an innate feature of the mind, independent of intelligence, cognitive ability, or motivation to avoid it (Peters, 2022). For instance, a researcher studying Alzheimer's disease may hold the belief that

memory games improve and delay memory loss. Due to confirmation bias, the researcher actively seeks evidence confirming this belief and interprets results in accordance with this belief, while discounting opposing perspectives. This is not necessarily a reflection of the researcher's competence, intelligence, or motivation to avoid bias, as confirmation bias is often unconscious and unintentional.

Individuals have the tendency to resist change after an initial hypothesis is formed due to anchoring bias (Lehner et al., 2008). Anchoring bias is mainly involved in the later stages of belief formation (stages three and four) as beliefs are evaluated and held. Prior beliefs overpower and shield the impact of subsequent beliefs, thereby hindering the acceptance of new information and new beliefs. Anchoring bias is difficult to control. An individual may unknowingly be affected by this bias, providing no reason to change their beliefs. Without conscious or voluntary will, fallacious and harmful beliefs may be formed and accepted.

Representativeness heuristic is a cognitive strategy for making categorical judgments about someone based on how closely they match a generalization (APA Dictionary of Psychology, n.d.). This heuristic mainly causes individuals to form stereotypes and prejudices. Individuals will tend to make generalizations that guide perceptions without deliberate thought or choice. For instance, individuals with multiple piercings and tattoos are often stigmatized and perceived as less professional. Under the influence of the representativeness heuristic, an employer may perceive a job candidate with such appearances as unsuitable and unprofessional.

Despite limited knowledge or narrow perspectives, new beliefs are formed depending on pre-existing beliefs to maintain internal consistency with the overall belief system (Tversky & Kahneman, 1974). The development of cognitive biases and heuristics is challenging to prevent— it is a built-in responsive system, akin to the “fight or flight” response, serving as an evolutionary and adaptive feature. These biases operate at a subconscious level, shaping beliefs without deliberate volitional control.

External Influences

Similar to how an individual's environment cannot be controlled, the formation of an individual's belief also cannot be controlled. External influences of the social environments cause belief formation to be involuntary. These influences play a role in all five stages of belief formation, and are responsible for forming and reinforcing beliefs. Direct experience encompasses external influences, and is the strongest effect since it provides a natural credulity and an innate tendency to believe (Sathyanarayana Rao et al., 2009). These experiences are acquired through an individual's upbringing and social interactions, independent of choice. The beliefs of significant others surrounding an individual during childhood, such as a parent, can be adopted and can influence one's perception of reality. In a study by Frome and Eccles (1998) investigating the effect of parents' perception on their children's grades and self-perception, it was found that parents are determining factors of how a child perceives reality. Thus, the formation of beliefs are heavily influenced by interference of others in childhood development and in the social environment, mainly those who hold great significance and impact (such as close relationships, with great emotional significance).

Culture provides a shared system of values, beliefs, and practices, affecting people's behavior and their mind (Gao et al., 2022). This shared system affects one's perception and stance on an issue and shapes a person's beliefs through the lenses of a particular group. Herd mentality, “the tendency of the people in a group to think and behave in ways that conform with others in the group rather than as individuals” (Merriam-Webster, n.d.), describes the innate drive to submit to the majority of a society and culture at the expense of individuality. For example, many Chinese smokers have adopted the cultural belief that smoking is a sign of maturity, is stylish, and is socially beneficial, causing them to continue smoking despite the harmful health effects (Ren et al., 2019). This shows how beliefs are guided and reinforced through social and cultural conditioning.

Limitations

The relationship between consciousness and will may be disputed in my argument. It may be pointed out that humans are capable of willful cognitive change. In the preliminary stages of belief formation, sensory inputs from the environment enter an individuals' brain, and beliefs filter out which information should enter conscious awareness (Sathyanarayana Rao et al., 2009). When an individual changes their thinking and becomes more open and receptive, they can access the information filtered out and change their beliefs (Sathyanarayana Rao et al., 2009). Thus, it may be concluded that heuristics and biases in this process can then be reassessed and beliefs can be critically re-examined.

However, conscious awareness of all external stimuli does not guarantee that beliefs will be formed void of interference. It is even not guaranteed that the filtered information induces conscious will. Considering the possibility of unbiased sensory information, the internal influences still cannot be assessed, as cognitive processes will persist in biased ways.

Emotion, a strong and often imprecise factor that ignites positive or negative perceptions, obstructs the mind's ability to reflect critically. Emotions are involuntary and do not involve the act of the will to affirm or deny (Schmitter, 2021). Emotion serves as an essential motivating factor in shaping interpretations and perceptions, directly and indirectly affecting the process of belief formation. Beliefs are formed to align with the subject's current emotion or mood (Connors & Halligan, 2017). Without any deliberate or critical thought, explanations of sensory inputs that offer emotional benefits like comfort or certainty are more likely to be accepted as true and formed into a belief than equally plausible explanations that do not offer these benefits (Connors & Halligan, 2017).

Furthermore, individuals' identity and sense of self is a driving internal involuntary force. When confronted with contradictory information, individuals experience cognitive dissonance. Festinger (1962) describes cognitive dissonance as things that are not psychologically consistent with each other, like simultaneously holding conflicting beliefs. Dissonance reduction is then employed to

reduce this uncomfortable mental state, involving rejecting or rationalizing information that challenges previous beliefs (Festinger, 1962). This impedes the genuine consideration and assessment of alternative viewpoints. However open and receptive anyone can be, the foremost concern of the mind is to avoid cognitive dissonance and maintain internal consistency.

While the prospect of gaining control over belief formation is appealing, thoroughly examining all sensory information entering the brain during belief formation is simply not feasible. Sensory inputs are filtered to reduce cognitive efforts— the mind can only consciously reflect on so much information (Schwitzgebel, 2021). With constrained attention and processing capacity, human cognition faces various limitations (Marois & Ivanoff, 2005). The mind is bombarded with an overwhelming amount of information daily, making it impractical to evaluate every piece of encountered information comprehensively. Consequently, even with the desire to change beliefs, the sheer volume and the flowing pace of information makes it challenging to uncover and assimilate all the relevant filtered information that could potentially alter beliefs.

Though the relationship between consciousness and will is not linear, the idea of changing mindsets can be drawn from this argument. Internal and external influences will invariably initiate and interfere with the formation of beliefs, but by changing perceptions of these influences, the maintenance and execution of beliefs can be controlled according to will. As the state of the world changes, individual realities transform with evolving thoughts. By acknowledging the hand-in-hand relationship between change and the involuntary, individuals can adopt an accepting mindset and choose how they perceive it. This prompts the development of a management system that can establish a standard for optimal and desired response to beliefs.

Conclusion

Beliefs play a fundamental role in shaping individuals' personal identity and influencing how they perceive and interact with the world around them. I have presented evidence supporting the involuntary nature of belief formation, stemming from internal

influences of cognitive biases and heuristics, and external influences of social and cultural conditioning. The impact of emotions and cognitive limitations further hinders the ability to consciously evaluate all incoming sensory inputs. Though the absence of complete control in forming beliefs is evident, I advocate for the development of an evolving mindset. As control is desirable and the removal of control is aversive for human beings, I emphasize that the will has the power to manage and execute beliefs. Just as it is adaptive in forming beliefs to automatically respond to the environment, it is equally crucial to appropriately modulate those responses within the given context. By acknowledging the involuntary aspects of belief formation and embracing the capacity to exert influence over beliefs, individuals can cultivate a mindset that fosters critical thinking, self-reflection, and the ability to adapt and evolve their beliefs. Ultimately, it is through this conscious effort of managing and executing beliefs that they can navigate the complexities of life and make informed decisions that align with their values and aspirations.

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