

## Moderation Role of Effects of Forms of Upward versus Downward Counterfactual Reasoning on Gambling Cognition and Decision of Nigerians

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**Abstract :** There is growing public and mental health concerns over the availability of gambling platforms and shops in Nigeria and the high level of youth involvement in gambling. Early theorizing maintained that gambling involvement driven by the quest for resource gains. However, evidences show that the economic model of gambling tend to explain the involvement of the gambling business owners (sport lottery operators: SLOs) as most gamblers lose more than they win. This loss, according to the law of effect, ought to discourage decisions to gamble. However, the quest to recover loses has often initiated and prolonged gambling sessions. Therefore, the need to investigate mental contemplations (such as counterfactual reasoning (upward versus downward) of what “would, should, or could” have been, and feeling of the illusion of control; IOC) over gambling outcome as risk or protective factors in gambling decisions became pertinent. The present study sought to understand the differential contributions and conditional effects of upward versus downward counterfactual reasoning as pathways through which the association between IOC and gambling decision of Nigerian youths (N = 120, mean age = 18.05, SD = 3.81) could be explained. The study adopted a randomized group design, and data were obtained by means of stimulus material (the Gambling Episode; GE) and self-report measures of IOC and Gambling Decision. One-way analysis of variance (ANOVA) result showed that participants in the upward counterfactual reasoning group (M = 22.08) differed from their colleagues in the downward counterfactual reasoning group (M = 17.33) on the decision to gamble, and this difference was significant [ $F(1,112) = 23, P < .01$ ]. HAYES PROCESS macro moderation analysis results showed that 1) IOC and upward counterfactual reasoning were positively associated with the decision to gamble ( $B = 14.21, t = 6.10, p < .01$  and  $B = 7.22, t = 2.07, p < .01$ ), 3) upward counterfactual reasoning did not moderate the association between IOC and gambling decision ( $p > .05$ ), and 4) downward counterfactual reasoning negatively moderated the association between IOC and gambling decision ( $B = 07, t = 2.18, p < .05$ ) such that the association was strong at a low level of downward counterfactual, but wane at high levels of downward counterfactual reasoning. The implication of these findings are that IOC and upward counterfactual reasoning were risk factors and promote gambling behavior, while downward counterfactual reasoning protects individuals from gambling activities. Thus, it is concluded that downward counterfactual reasoning strategies should be included in gambling therapy and treatment packages as it could diminish feelings of both IOC and negative feelings of missed positive outcomes and the urge to gamble.

**Keywords :** counterfactual reasoning, gambling cognition, gambling decision, nigeria, youths

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