



Strong Assurance And Its Role in Development of Superstitious Believes.

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ABSTRACT : It is intrinsic to human mind that, to establish something as a believe, it requires a guided experience. The experience becomes a connecting link between the external factor and our believes, by which, we assure ourself that, the experience we had, is a property unique to the provided experience, and thus we, or rather our brain, establish it as a 'believe' that, for this particular experience we expect; this- our established believe; to happen. For example, say for consumption of a medicine, if it happens to be of bad taste, the experience suggested that, consumption of medicine make your tongue taste bitter. The experience, assured or convinced that the medicine will taste bad.

Could this then be falsified, that is, can it happen, that an externally provided strong assurance, establishes such believes, that holds no scientific background, but is purely hypothetical, an idea based only on claims made upon the context it is provided in, in essence, superstitious believes. The investigation and the survey conducted was based on what explained aforementioned.

Introduction.

Superstitions – defined, as an act of believing something which is not based on human reason or scientific knowledge, but is connected with old ideas^[1]. Although definition may vary a less or more, if we check other reputed sources^{[2][3]}, commonly, it is defined somewhere near the provided definition. Though, as presented in the definition itself, these are 'based' on old ideas and/or philosophies, that for instance; could be 'I must wear a red shirt all the time or else the witch would catch me'. And as obvious, by the statement it is, they are not based on scientific knowledge. But have one thing in common, is that, to the believers, it sounds more truer than an actual scientific argument would do. This begs a question. Why do they believe in it at the first place? Why any superstitious believes are even there? For that, we investigated; where we could find the best of these superstitious believers and their believes. The cults; namely, the Jonestown cult^[4], The Ant Hill's Cult ^[5], and the observation of Festinger, Riecken and Schachter – When Prophecy Fails, about the Chicago cult, Doomsday Cult or commonly called the UFO cult.^[6]

We found a very similar practice, that was, to make them believe; with absolutely no reason given, that what is said by the leader of the cult, is true – as in Jonestown Cult, it happened to be taking the followers, in an isolated area^[7]; in the Chicago cult and in Ant Hill's cult, it happened to gain the followers' believe that their leader is the messenger of, God. Which all, by definition seems, pretty easy to deny at the first place. But the fact it was not denied and the fact that participants were not illiterate, make the whole situation an open question. Can these superstitious believes be imposed by just a statement which sounds assuring, and true for in the context it is stated in, with either no background of scientific evidences or with the support of pseudo-scientific dialogues.

Hypothesis.

Based on what we have found, while investigating the three, prior mentioned cults, along with reference to other prominent results and effects found in this field of study, as such in Placebo Effect^[8] and in the test performed by Freedman^[9]; we propose the hypothesis as thus:

Hypothesis : Strong assurance have the tendency to develop superstitious believes.

We've used the word assurance as in – to gain the confidence of; to convince or persuade, to facilitate the impression of superstitious believes, those which we wish to^[10]. In contrast to the hypothesis proposed, the null hypothesis automatically calls out to be that we would not see any significant result. The significance would then be calculated as per the standards sets.

We would define that, in order to reject null hypothesis, the population proportion must be greater than 0.5; and with our full conscience, we would like the value to be 0.6 . That is, the true probability of a success according to the null hypothesis, is 0.6.

Methodology.

The survey conducted; for the investigation mentioned above, was in the form of Google Sheets, in essence, the survey was conducted as an online forum [11]. The online form was developed solely by the author. Though; to the participants, the survey form was promised to be about addiction and influence, but the overall questionnaire was actually a disguise for the actual question hidden somewhere between the form; which should not be misinterpreted, or confused, by that we never asked the question directly, and are making untrue assumption. The question asked, and the response given was, both done directly. The method of disguising the question was used, so that the participants do not give biased answers, that is as they think the question, an unimportant one, they are more likely not to be biased about the response.

Since we have to know about whether a strong assurance could develop superstitious believes, we must have a statement that represents, the statement of strong assurance. And also that, its meaning, as we investigated above, must come from the context and not from any scientific evidences. For the purpose stated, we used the following statement as to represents aforementioned; ~ “Everyone is addicted to some sort of thing or another, ain’t they not?”

And for the context it provided, we performed two things. One, that we initially asked them, the participants, that what addiction do they have. Two, that we encouraged the seemingly truthful part of the statement, by not just directly putting it into a question box, but by providing a small dialogue, between two hypothetical men, Kevin and Dutton [11].

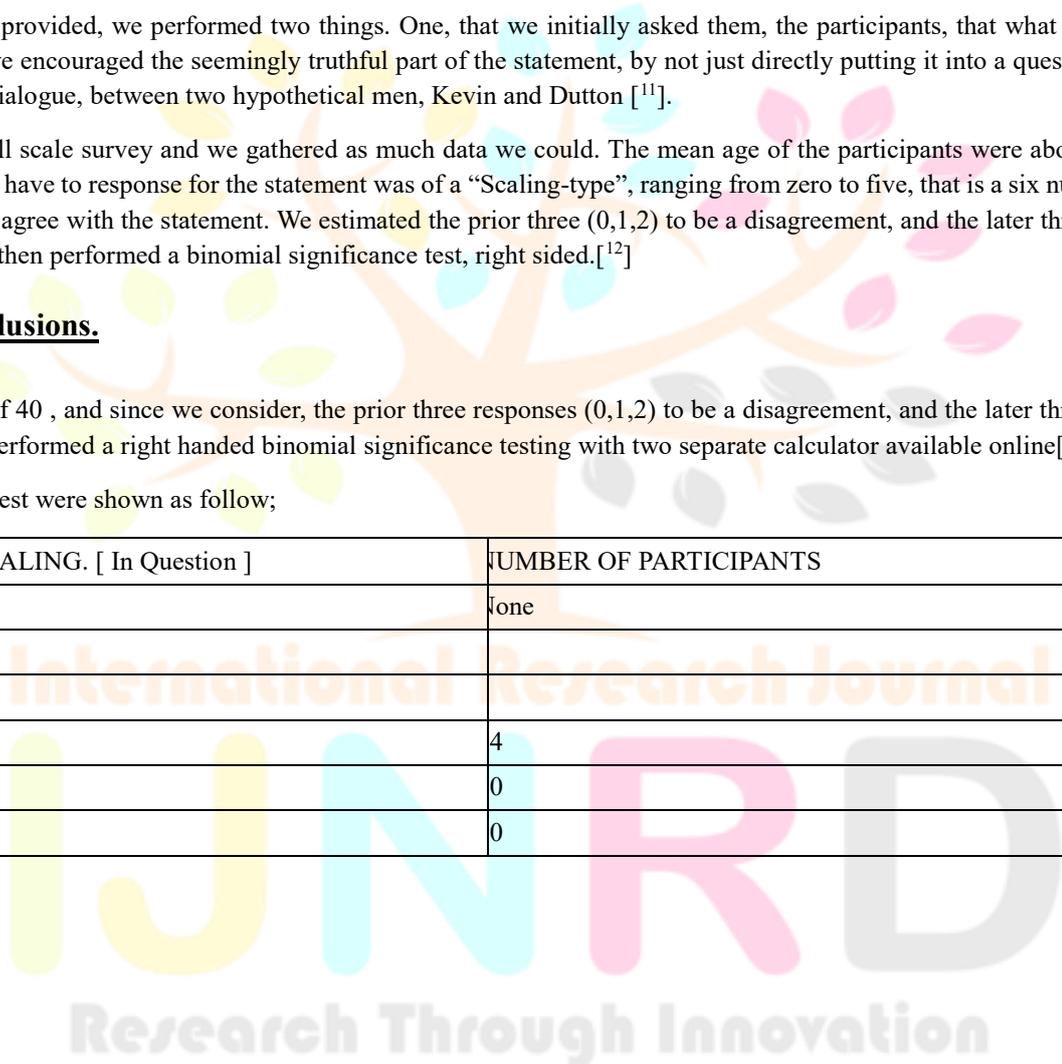
Our survey was a small scale survey and we gathered as much data we could. The mean age of the participants were about 23.4. The question in which they have to response for the statement was of a “Scaling-type”, ranging from zero to five, that is a six number range; for how much do they agree with the statement. We estimated the prior three (0,1,2) to be a disagreement, and the later three (3,4,5) to be an agreement. And then performed a binomial significance test, right sided.[12]

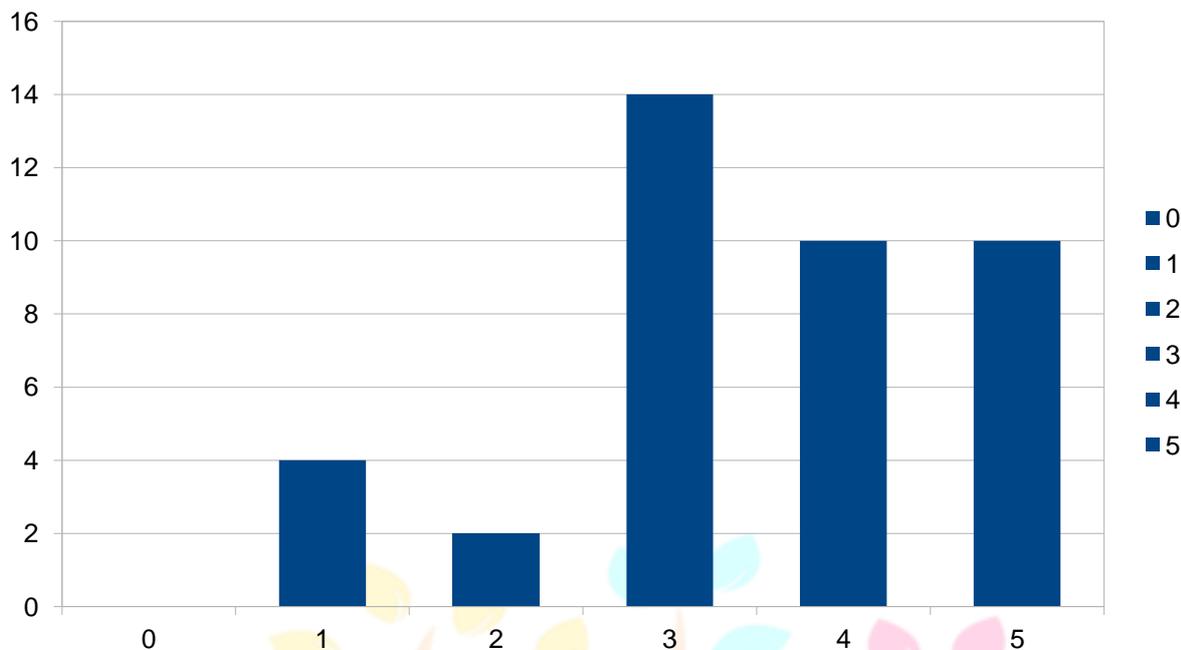
Results and Conclusions.

Our sample size was of 40 , and since we consider, the prior three responses (0,1,2) to be a disagreement, and the later three (3,4,5) to be an agreement, we performed a right handed binomial significance testing with two separate calculator available online[13] [14].

The results as per the test were shown as follow;

CHOICE AS PER SCALING. [In Question]	NUMBER OF PARTICIPANTS
	None
	4
	0
	0





If we let the sample size be called (n), and the number of successes be called (X), then, by the data we collected, then we define, calculate binomial significance, we divide the values in set of agreement and disagreement, where prior three refers to disagreement of the participant, and later three then be the agreement, then the number of successes X is (14+10+10) and the number of trials (n) are 40, and portability of success is (0.6), then;

By the binomial significance calculator we used^[14], which states as thus;

[sic] When the observed number of 'successes' $X = 34$, the sample size/number of trials $n = 40$, and the population proportion of successes according to the null hypothesis/the true probability of a success according to the null hypothesis is 0.6, the right sided p value is equal to 0.000595. That is, the probability of finding the observed number of successes X of 34 or a larger number, if the null hypothesis were true, is equal to 0.000595.

Thus allows us to successfully reject the null hypothesis. Which, must mean that, there is a certain level of significance of these strongly assuring sentences to build up superstitious believes, we does not, however emphasize on what it may further mean. Although, we would like to emphasize that the null hypothesis has been successfully rejected.

Additional information.

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Data Availability:

all the data have been collected by the author during the survey. The data was maintained in the form of (a) Google Sheets Automated Responses Section, and (b) Google Sheets.

Competing interests:

The author hereby declare that no competing interests exist.

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