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Causal Attribution Beliefs of Success and Failure: A Perspective from Pakistan

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Abstract

Pakistani students at secondary school level were asked to respond to a self-reporting causal attributions beliefs scale. The scale measured eight causal beliefs about success and failure. Participants of the study included 1826 students from three districts in Punjab. Results showed that both male and female students endorsed internal attributions as possible reasons of their success as well as failure than external attributes. Influence of parents and teachers was considered as cause of success. Effort was considered as the most important cause of success as well as failure in school subjects such as English and Mathematics. The mean difference found was significant in almost all attributions of success and failure.

Keywords: Attributions, beliefs, internal, external, effort, Punjab, Pakistan

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Introduction

The world of today is a competitive world where possible outcomes are triumph and failure. Our reaction to either situation depends upon the way we interpret the causes of our success or failure. It is not necessary that we react to our failures and successes in exactly the same manner. It depends upon the situation and the outcome. We attribute the outcomes of our and others behavior to numerous reasons like ability, effort, difficulty of the task, and luck etc (Leferancois, 2000). These motives can be categorized along three-dimensional framework of locus of control, stability of the cause and controllability (Weiner, 1985). These dimensions are the cornerstones of Weiner's theory of motivation. According to Weiner (1985), locus is either internal or external. Sometimes causes of an event are internalized, especially when outcome is positive - like ability and effort i.e. factors within the person. On the other hand, when outcome is not favourable, people look for reasons in environment like luck or difficulty of the task etc to explain their failures by sustaining their self-esteem. Locus dimension is associated with feelings related to self-concept. The stability dimension is important and related to expectations of future achievements. Students believe that causal factors that contribute to their success and failure may be stable for over a long period of time (ability or aptitude) or unstable (mood or luck). The third dimension, controllability identifies the extent of a cause that whether it is controllable (hard work or effort) or uncontrollable (luck or intelligence).

To study causal attributions, three major methodological approaches are found in literature (Vispoel & Austin, 1995). According to Vispoel & Austin (1995), in situational study, participants are asked to study a detailed scenario about a hypothetical situation. Attributions are drawn from it and students respond to a series of attributions related to that particular scenario. Similarly, in a dispositional study, students receive several brief and vague descriptions of hypothetical achievement situations. These both types are experimenter-defined situations and lack the real-life situations and events. To overcome these short comings, Vispoel and Austin (1995) performed a critical incident method. In this method, they asked students to recall performance on one or more real-life tasks and attribute their success and failure in four subjects i.e. English, Mathematics, General Music and Physical Education. Ho, Salili, Biggs, and Hau (1999) studied attributions of Chinese students studying in Hong Kong. The results of their study showed that students attributed the causes of their success and failure to internal causes.

Attribution theory emerged in early years of twentieth century and soon became a hot pursuit of researchers. Many instruments were developed (*CDS* by Russell, 1982). Researchers around the globe developed measures to study the problems according to their own context and situations. This is the popularity of the construct that attribution theory is still an active field of inquiry (Weiner, 2008). In attribution theory, how and why types of questions pertaining to humans are dealt such as 'Why does he get higher marks than me?'. Being a cognitive theory of motivation, attribution perspective lies in constructivist framework, where the individual brings his own meanings to the environment (Pishghadam & Modarresi, 2008).

Keeping in mind the world perspective, we looked into the context of Pakistan by designing this study with two objectives. The first objective was to study the perceptions of secondary school students regarding attributions of their success and failures. To get a broader picture, we added four more causes to the traditional list of causes found in Weiner's attributional theory. In this way eight causes were presented to the students to describe their causal attribution beliefs in Mathematics and English at secondary level. The other purpose of this study was to find out the attribution patterns of success and failure of both male and female students in Pakistan.

Research Methodology

Sample

The sample was drawn from thirty-six randomly selected public sector secondary schools of three districts of Punjab, namely city district Lahore, Khushab and Mianwali. Twelve schools from each district were selected. Both male and female students participated in the study. Students studying in 10^{th} class in both urban and rural secondary schools responded to the questionnaire. There were 918 male students and 908 female students (1826 students in total). Data were collected from both science and arts students. Two sections of 10^{th} grade from each sample school were taken as sample. There were 1207 science students and 619 arts students in the sample. *Causal Attributions Beliefs Scale (CABS)* was administered in the company of concerned teachers of the school to maintain discipline in the classroom. The students had diverse family background in terms of their social and economic positions.

Table 1 describes the distribution of participants in the study.

Table1

Gender and District Wise Distribution of Sample

District	Gender	Total
Lahore	Female	316
	Male	384
Mianwali	Female	316
	Male	280
Khushab	Female	276
	Male	254
Total		1826

Development of the Instrument (CABS)

After an in-depth review of literature, researcher developed a questionnaire with taxonomy of eight types of causal attribution beliefs with four having internal locus (ability, strategy, effort and interest) and four having external locus (luck, family influence, task difficulty and teacher influence).

The initial draft of *CABS* was discussed with three experts for their expert opinion. This panel included Dr. Bernard Weiner, Dr. Dan Russell, and Dr. Donelson R. Forsyth-all the three experts are well known in the field of research on attribution. In the light of their suggestions, final draft of questionnaire was prepared. It was an adequate scale to trace the key theoretical causes for scholarly achievements as were identified in the classic attribution theories. The final instrument consisted of two forms-one containing success situations i.e. Mathematics and English success, and the other with failure conditions i.e. Mathematics and English failure. It was pilot tested and Cronbach's alpha was found to be 0.823 for the whole questionnaire (for details see, Farid & Iqbal, 2012).

Results

Tables 2 describes perceptions of students about failure in Mathematics.

Table 2

Students Perceptions Regarding Failure in Mathematics

	Male students (918)				Female students(908)		
Rank	Attributions	Mean	SD	Rank	Attributions	Mean	SD
1	Effort	3.26	1.268	1	Effort	3.11	1.262
2	Strategy	3.17	1.320	2	Interest	3.01	1.334
3	Interest	3.16	1.355	3	Task difficulty	3.01	1.320
4	Task difficulty	3.04	1.348	4	Strategy	2.93	1.329
5	Parent influence	2.85	1.451	5	Luck	2.74	1.317
6	Ability	2.80	1.360	6	Teacher Influence	2.71	1.382
7	Luck	2.79	1.297	7	Ability	2.66	1.241
8	Teacher influence	2.67	1.468	8	Parent Influence	2.31	1.424
Internal causes 12.39 (5.303)					Internal causes 11.71 (5.166)		
External causes 11.35 (5.564)					External causes 10.77 (5.443)		

Both male students and female students ranked lack or absence of effort as the major cause of failure in Mathematics, followed by strategy, interest and task difficulty. The sum of mean scores of internal causes was more than sum of mean scores of external causes, indicating that students considered internal causes as key reason of their failure in Mathematics.

Table 3 describes perceptions of students about failure in English.

Table 3

Students Perceptions Regarding Failure in English

	Male students (918)				Female students (908)		
Rank	Attributions	Mean	SD	Rank	Attributions	Mean	SD
1	Interest	3.16	1.389	1	Effort	2.96	1.338
2	Effort	3.14	1.256	2	Task difficulty	2.87	1.359
3	Task difficulty	3.05	1.326	3	Interest	2.77	1.397
4	Strategy	3.03	1.315	4	Strategy	2.76	1.392
5	Teacher influence	2.85	1.488	5	Luck	2.62	1.199
6	Ability	2.80	1.373	6	Teacher influence	2.56	1.451
7	Luck	2.77	1.280	7	Ability	2.51	1.245
8	Parent influence	2.65	1.461	8	Parent influence	2.38	1.418
Internal causes 12.13 (5.333)					Internal causes 11.00 (5.372)		
External causes 11.32 (5.555)					External causes 10.43 (5.427)		

As far as failure attributions in English were concerned, it was found that male students considered lack of interest as most important failure cause; while females quoted lack of effort as root cause of their failure. For male students, other important failure causes in English were lack of effort, task difficulty and strategy. Female students considered task difficulty, lack of interest and strategy as important failure causes in English. Students considered internal causes as root cause of their failure in English. Here again, the sum of mean scores of internal causes was greater than the sum of mean scores of external causes, indicating that students considered internal causes as root cause of their failure in English.

Tables 4 & 5 describes students' success perceptions in Mathematics and English.

Table 4

Students' Success Perceptions in Mathematics

	Male students (918)				Female students (908)		
Rank	Attributions	Mean	SD	Rank	Attributions	Mean	SD
1	Effort	4.10	1.029	1	Effort	4.19	0.928
2	Teacher influence	4.10	1.183	2	Teacher influence	4.19	1.078
3	Parent influence	4.00	1.207	3	Parent influence	4.12	1.137
4	Interest	3.93	1.136	4	Strategy	4.07	0.957
5	Ability	3.92	1.200	5	Interest	4.06	1.077
6	Strategy	3.90	1.089	6	Ability	3.95	1.109
7	Luck	3.62	1.251	7	Luck	3.79	1.101
8	Task difficulty	3.36	1.334	8	Task difficulty	3.53	1.254
Internal causes 15.85 (4.454)					Internal causes 16.27 (4.071)		
External causes 15.08 (4.975)					External causes 15.63 (4.57)		

Both male students and female students considered effort as main cause for success in Mathematics, followed by teacher's influence, and parent's influence. The sum of mean scores of internal causes was greater than mean scores of external causes, indicating that students considered internal causes as root cause of their success in Mathematics.

Table 5
Students' Success Perceptions in English

	Male students (918)				Female students (908)		
Rank	Attributions	Mean	SD	Rank	Attributions	Mean	SD
1	Teacher influence	4.16	1.153	1	Teacher influence	4.30	0.994
2	Effort	4.08	1.044	2	Effort	4.20	0.933
3	Parent influence	4.02	1.208	3	Parent influence	4.18	1.059
4	Ability	3.93	1.213	4	Interest	4.13	0.967
5	Strategy	3.89	1.092	5	Ability	4.09	1.019
6	Interest	3.87	1.151	6	Strategy	4.07	0.936
7	Luck	3.61	1.202	7	Luck	3.74	1.079
8	Task difficulty	3.47	1.286	8	Task difficulty	3.59	1.198
Internal causes 15.77 (4.5)					Internal causes 16.49 (3.855)		
External causes 15.26 (4.849)					External causes 15.81 (4.33)		

As far as success attributions in English were concerned, a similar pattern of attributions was found. Teacher's influence was ranked as most important cause for success in English by students, followed by effort, and parent's influence. The sum of mean scores of internal causes was greater than the sum of mean scores of external causes, indicating that students considered internal causes as prime cause of their success in English.

To discover the mean score difference in causal attributions of male students & female students in Mathematics and English, a series of Independent samples t-test were conducted.

Tables 6-9 described significant mean difference found in various failure and success attributions.

Table 6
Gender Wise Students' Failure Attributions in Mathematics

	Male students (918)		Female students (908)				
Attributions	M	SD	M	SD	df	T	P
Ability	2.80	1.360	2.66	1.241	1824	-2.404	0.016*
Effort	3.26	1.268	3.11	1.262	1824	-2.482	0.013*
Strategy	3.17	1.320	2.93	1.329	1824	-3.860	0.000*
Interest	3.16	1.355	3.01	1.334	1824	-2.491	0.013*
Luck	2.79	1.297	2.74	1.317	1824	-0.920	0.358
Task difficulty	3.04	1.348	3.01	1.320	1824	-0.487	0.626
Parent's influence	2.67	1.451	2.31	1.382	1824	-5.421	0.000*
Teacher's influence	2.85	1.468	2.71	1.424	1824	-2.074	0.038*

*p<0.05

Table 6 showed significant mean differences were found in ability (0.016*), effort (0.013*), strategy (0.000*), interest (0.013*), parent's influence (0.000*) and teacher's influence (0.038*). No significant mean difference was found in failure attributions of luck and task difficulty. The analysis further pointed towards the mean scores of male students were greater than female students in every cause.

Table 7

Gender Wise Students' Failure Attributions in English

	Male students (918)		Female students (908)				
Attributions	M	SD	M	SD	df	T	P
Ability	2.80	1.373	2.51	1.245	1824	-4.777	0.000*
Effort	3.14	1.256	2.96	1.338	1824	-3.056	0.002*
Strategy	3.03	1.315	2.76	1.392	1824	-4.373	0.000*
Interest	3.16	1.389	2.77	1.397	1824	-6.087	0.000*
Luck	2.77	1.280	2.62	1.199	1824	-2.623	0.009*
Task difficulty	3.05	1.326	2.87	1.359	1824	-2.882	0.004*
Parent's influence	2.65	1.461	2.38	1.418	1824	-3.995	0.000*
Teacher's influence	2.85	1.488	2.56	1.451	1824	-4.171	0.000*

*p<0.05

Table 7 indicated that all the failure attributions of students in English showed significant mean difference. The analysis further pointed towards the mean scores of male students were greater than female students in every cause.

Table 8

Gender Wise Students' Success Attributions in Mathematics

	Male students (918)		Female students (908)				
Attributions	M	SD	M	SD	df	T	P
Ability	3.92	1.200	3.95	1.109	1824	0.453	0.651
Effort	4.10	1.029	4.19	0.928	1824	1.970	0.049*
Strategy	3.90	1.089	4.07	0.957	1824	3.695	0.000*
Interest	3.93	1.136	4.06	1.077	1824	2.472	0.014*
Luck	3.62	1.251	3.79	1.101	1824	3.001	0.003*
Task difficulty	3.36	1.334	3.53	1.254	1824	2.919	0.004*
Parent's influence	4.00	1.207	4.12	1.137	1824	2.146	0.032*
Teacher's influence	4.10	1.183	4.19	1.078	1824	1.665	0.096

*p<0.05

Table 8 described that there was significant mean difference found in effort (0.049*), strategy (0.000*), interest (0.014*), luck (0.013*), task difficulty (0.004*) and parent's influence (0.032*). Whereas, no significant mean difference was found in ability and teacher's influence. The analysis further stated that the mean scores of female students were greater than male students in every cause.

Table 9

Gender Wise Students' Success Attributions in English

	Male students (918)		Female students (908)				
Attributions	M	SD	M	SD	df	t	P
Ability	3.93	1.213	4.09	1.019	1824	3.095	0.002*
Effort	4.08	1.044	4.20	0.933	1824	2.565	0.010*
Strategy	3.89	1.092	4.07	0.936	1824	3.795	0.000*
Interest	3.87	1.151	4.13	0.967	1824	5.221	0.000*
Luck	3.61	1.202	3.74	1.079	1824	2.393	0.017*
Task difficulty	3.47	1.286	3.59	1.198	1824	2.059	0.040*
Parent's influence	4.02	1.208	4.18	1.059	1824	3.009	0.003*
Teacher's influence	4.16	1.153	4.30	0.994	1824	2.660	0.008*

*p<0.05

Table 9 indicated that there was significant mean difference found in all success attributions in English. The analysis further stated that the mean scores of female students were greater than male students in every cause.

Discussion

The students undergo a variety of learning experiences throughout their learning endevours. The emotional reaction on receiving marks after test or paper is a natural outcome. Success or failure breeds emotions, feelings and sentiments that are vital signs of students' behaviour. On receiving marks in a class assessment or in an examination, questions of 'Why' emerge and students start finding reasons. Once students have made a perception about the motives behind an incident, this awareness affects not only the sentiments of achieving at the present moment but also in approaching achievement related situations in future (Boekaerts, Otten, & Voeten, 2003). Research on causal attribution is not confined to traditional causes; rather it encourages extracting as many attributions as it can (Bar-Tal, 1978: Forsyth, Story, Kelley, & McMillan, 2009: Nenty, 2010: Vispoel & Austin, 1995: Weiner, 2010).

Conclusion

The present study attempted to study causal attribution beliefs of Pakistani students at secondary level. Overall, students endorsed all the given attributes as perceived causes of their success as well as failure in school subjects. Male students and female students, both considered absence or low effort as salient failure cause in Mathematics, followed by strategy, interest and task difficulty. As far as failure attributions in English were concerned, it was found that male students considered lack of interest as most important failure cause; while females quoted low effort as root cause of their failure.

Similarly, both male students and female students considered effort as fundamental reason of success in Mathematics, followed by teacher's influence and parent's influence. As far as success attributions in English were concerned, a similar pattern of attributions was found. Both the gender considered teacher's influence as most salient reason for success in English, followed by effort, and parent's influence.

The sum of mean scores of internal causes was greater than sum of mean scores of external causes, indicating that students considered internal causes as root cause of their success as well as failure in Mathematics and English. Statistically significant mean difference was found in various failure and success attributions. All the failure attributions in English and all the success attributions in English showed significant mean differences. As far as Mathematics was concerned, six out of eight failure attributions as well as 6 out of 8 attributions of success disclosed significant mean differences. We found identical patterns of particular attributions ranked in order of importance by male and female students.

Recommendation

Like any other research study, the present study had its limitations. We used only eight causal attributes in our study. It can be increased accordingly to study more attributions in future.

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