International Journal of Instruction *April 2023 ● Vol.16, No.2*
e-ISSN: 1308-1470 ● www.e-iji.net *p-ISSN: 1694-609X*
pp. 603-622

Article submission code: 20220126131014
Received: 26/01/2022 Revision: 21/10/2022
Accepted: 15/11/2022 OnlineFirst: 30/01/2023

Stimulus Appraisal-Based L2 Attitude and Motivation among Indian ESL Learners

Sarat K Doley
PhD., Tezpur University, India, *dolesar@tezu.ernet.in*

This article presents the findings of a stimulus appraisal-based study using the criteria of goal significance, self/social image, coping potential, pleasantness, and novelty on the differences and similarities in the second language (L2) attitude and motivation of Indian English as a second language (ESL) learners (N>500) pursuing their undergraduate programs in three academic disciplines: engineering, humanities, and medical science. A modified version of Garnder's attitude and motivation test battery (AMTB) was used as the questionnaire to collect data and the various L2 attitudinal and motivational dimensions in AMTB were interpreted as the criteria identified by Schumann in stimulus appraisal theory. The major finding of this study was that the mean scores of the need/goal significance dimension of ESL attitude and motivation significantly differed among the three ESL learner groups. The ESL learners across the three academic disciplines, however, exhibited mean scores within a similar range in the pleasantness and novelty dimensions of the stimulus assessment criteria. As studies on the differences in L2 attitude and motivation among adult L2 learners pursuing different institutional academic programs have been extremely limited, the findings reported in this article should have significant pedagogical implications for the understanding of L2 learning behavior in the context of such L2 classrooms.

Keywords: stimulus appraisal, AMTB, L2 motivation, L2 attitude, ESL, SLA, SLL

INTRODUCTION

One of the more recent theoretical perspectives on the effect of emotion on human cognition is the stimulus appraisal (SA) theory. It proposes that quick thinking occurs before the emergence of the experience of emotion in the human mind (Arnold, 1960; Ellsworth, 2013; Frijda, 1986; Lazarus, 1991; Lazarus & Folkman, 1984; Ortony et al. 1988; Roseman, 2013; Scherer, 2009). The sequence of events first involves a stimulus, followed next by the thought about it, and completes with a parallel physical and emotional experience as a response to the stimulus. The event of encountering a bear in the woods, for example, would lead to the immediate realization or thought of grave danger, followed by the emotional experience of fear and physical reactions of the fight-or-flight response (Arnold, 1960; Ellsworth, 2013; Frijda, 1986; Lazarus, 1991; Lazarus & Folkman, 1984; Ortony et al. 1988; Roseman, 2013; Scherer, 2009). In the context of

Citation: Doley, S. K. (2023). Stimulus appraisal-based L2 attitude and motivation among Indian ESL learners. *International Journal of Instruction*, *16*(2), 603-622. https://doi.org/10.29333/iji.2023.16232a

a learning situation, a positively assessed stimulus will have a positive effect on the amount of attention and effort a learner will be prepared to devote to it. It will also encourage the learner to approach similar stimuli in the future positively. A negatively assessed stimulus in the learning context, on the contrary, will induce the learner to devote less attention and effort, promoting avoidance of such stimuli in the future (Lovoué et al. 2020).

Following SA theory, Schumann (1998, 2001) studied the possible neurobiological substrate of motivation among foreign language learners. As it happens in other learning contexts, patterns of stimulus appraisal may underlie the concept of second language (L2) motivation. The L2 or foreign language classroom may be interpreted as a representative environment of socio-static regulation. Multiple relation dynamics operating between the teacher and the learners and between the learners themselves may influence their sense of well-being. So, a positively assessed L2 or L2 classroom atmosphere may affect L2 learners' motivation to create and preserve these particular social affiliations leading to enhanced learning effort and performance (Schumann, 1998). Previous studies in L2 motivation have extensively addressed the questions concerning the effect of age, sex, L2 self, and instructional contexts on L2 attitude and motivation (e.g., Henry & Cliffordson, 2013; Papi, 2010; You & Dornyei, 2016). These factors, along with the factor of academic discipline, however, need to be studied from the SA perspective (Schumann, 1998, 2001) too for more scientific understanding of L2 motivation.

It is of interest to note that L2 learner appraisals may exhibit differences in the appraisal emphasis given the fact that academic programs are constituted with specific program outcomes related to the academic discipline in question. An analysis of the differences and similarities in L2 attitude and motivation consequent upon the differential effect of the five SA criteria on L2 learners from different academic disciplines should illuminate on an important dimension in L2 attitude and motivation among ESL learners of India at the tertiary level. Since this aspect of L2 attitude and motivation has not been adequately understood yet in the field of L2 motivation studies, the author believes that the present study should provide a significant insight into it.

Guided by the broad principles of SA theory of L2 attitude and motivation, the present study aimed to describe the similarities and differences in the five SA dimensions of goal/need significance, self/social image, coping potential, pleasantness, and novelty in L2 attitude and motivation between the three groups of Indian undergraduate ESL learners recruited from three different academic disciplines: engineering, humanities, and medical science. The secondary objective of the study was to understand the nature of these five L2 attitudinal and motivational dimensions and their mutual correlations in terms of their pedagogical nuances and implications for L2 learning in a classroom concerning the three groups of Indian undergraduate ESL learners. The study posed the following five research questions-

1. Is there any statistically significant effect of sex differences on any of the five dimensions of the L2 attitude and motivation mean scores of the Indian undergraduate engineering, humanities, and medical science ESL learners?

2. Are there any statistically significant differences in any of the five dimensions of the L2 attitude and motivation mean scores of the Indian undergraduate engineering, humanities, and medical science ESL learners?

3. Is there any statistically significant effect of the instructional contexts on any of the five dimensions of the L2 attitude and motivation mean scores of the Indian undergraduate engineering, humanities, and medical science ESL learners?

4. Is there any statistically significant effect of the L2 attitude and motivation dimension of goal significance on the classroom-related SA criteria of coping potential, pleasantness, and novelty mean scores of the Indian undergraduate engineering, humanities, and medical science ESL learners?

5. Is there any statistically significant effect of L2 attitude and motivation dimension of self/social image on classroom-related SA criteria coping potential, pleasantness, and novelty mean scores of the Indian undergraduate engineering, humanities, and medical science ESL learners?

Literature Review

SA theory of L2 motivation

The basic proposition of SA theory is that emotions or components of emotions are caused and differentiated by an appraisal of the stimulus in question. Such appraisals may be in sync with the goals or expectations of the concerned individual, or they may be interpreted as easy or difficult to control. These appraisals may also involve an assessment of the stimulus as caused by personal, impersonal, or external circumstances (Arnold, 1960; Ellsworth, 2013; Frijda, 1986; Goetz et al. 2020; Lazarus, 1991; Ortony et al. 1988; Roseman, 2013; Scherer, 2009; Thomas & Cassady, 2019). These appraisal systems involve a process in which various appraisal factors such as goal relevance, goal congruence or incongruence, expectedness or unexpectedness, control, and agency may determine the value of a stimulus (Moors, 2020).

Exploration of the idea of a stimulus appraisal system in human cognition began in the 1980s when many researchers started studying the dimensions of stimulus appraisal in emotional experience to determine the various assessment or evaluation processes involved in it (Schumann, 1998). Making a distinction between knowledge and appraisal, the assessment of the personal relevance of knowledge involving judgment about how the stimulus agent, action, or object might have personal implications was defined as stimulus appraisal (Lazarus & Smith, 1988; Smith & Lazarus, 1993). Developing the first psychological model of stimulus appraisal, Scherer (1984) identified five stimulus appraisal criteria or checks: novelty, intrinsic pleasantness, goal/need significance, coping potential, and norm/ self-compatibility. Gehm and Scherer (1988) further examined the relationship between these stimulus appraisal criteria and various emotional experiences.

Later, Scherer (1993) devised a computer program that could predict the specific emotion expected to be excited by the five criteria to test the different dimensions of stimulus appraisal through digital simulations. A few more models of the stimulus

appraisal system with variations in the number of stimulus appraisal dimensions or criteria have been proposed by other studies (e.g., Lazarus & Smith, 1988; Ortony et al., 1988; Roseman, 1984; Smith & Ellsworth, 1985) and a consensus on the exact picture of the system is still awaited.

Stimulus appraisal theory views L2 learning as a performance or use of the L2 at various stages of learning. The performance or use of the L2 is described as an outcome that assesses the stimulus appraisal system of the L2 learner (Schumann, 1998). Elucidating on the way outcomes are appraised through causal attributions, Weiner (1985, 1986) states that there are dimensions of locus, stability, and controllability in a learner's causal ascription (Brown & Weiner, 1984). Since emotions are generated based on the causal attributions of these three dimensions, the specific emotions' reactions "play a role in motivated behavior" (Weiner, 1985, p.559). Using Scherer's five stimulus appraisal checks as the basis of his argument, Schumann (1998) theorizes that long-term cognitive effort involving sustained deep learning (SDL) required to gain excellence or mastery in learning or lack of it is guided by these appraisals. So, the stimulus appraisal system is conceptualized as a major basis for the learning of a wide range of proficiency that involves an act of SDL such as L2 learning (Schumann, 1998).

ESL motivation research in India

Mostly in conjunction with Gardner and Lambert (1972), empirical studies in L2 motivation in India began in the 1970s concentrating on two main trends- smaller geographical locations to understand the correlations between motivation and ESL proficiency (e.g., Lukmani, 1972) and attitudinal and motivational differences in ESL across academic disciplines at the tertiary level (e.g., Pramanik, 1981). Contributing to the growth of research in the first trend, several subsequent studies continued to be interested in the analysis of the nature of L2 motivation in a select group of ESL learners within the country for an understanding of pedagogically meaningful aspects of the sample (e. g., Joshi, 2015; Kaur & Bhangu, 2013). Taking up this approach, Saranraj et al. (2016) attempted a more elaborate study on the correlations between the internal dynamics of L2 motivation and their broad pedagogical implications for ESL classrooms using the attitude and motivation test battery (Gardner, 1985).

Studies following the second trend have continued to attempt at a theoretical understanding of the different dimensions of motivation beyond the need to correlate such findings with any immediate pedagogical implication (Gill & Vashisht, 2015; Khastgir & Neogi, 2017; Kulkarni, 2016; Meganathan, 2015; Narayan et al., 2008). In recent years, an interest in L2 learners' attitude to new forms of English, along with a focus on other less central issues within L2 motivation research, has also been attested (e.g., Bernaisch & Koch, 2016; Padwick, 2010; Veettil, 2013). Additionally, media groups like CNN-IBN have also been carrying out ESL attitude and motivation-related surveys that focus on measuring the importance of ESL in India in recent times (Graddol, 2010).

Apart from these scattered studies on L2 motivation in India, more dedicated studies related to the first trend in L2 motivation research in India have also been undertaken by

the British Council. The study conducted by the British Council (2016) is one of the largest-scale investigations on L2 attitudinal issues like frequency of L2 use, preference of the medium of instruction, choice of English vs vernacular schools, etc. involving 1,949 stakeholders from different groups across three districts of Bhojpur, Patna, and West Champaran in Bihar, India. Individual studies associated with the British Council efforts to date have also been following the same trend. Sarwal and Lamb (2018), for instance, studied the impact of the L2 instructor in instilling L2 motivation among North Indian ESL learners. Patil and Jagadale (2018) also investigated the importance of L2 motivation in ESL learning with a focus on the dimension of anxiety on a select sample from the Indian state of Maharashtra. These research reports have been instrumental in scaffolding a distinct shape of L2 motivation research in which L2 motivation among adult L2 learners has grabbed most of the research attention in India so far.

English language proficiency amongst students in Indian higher education institutions is generally thought to be too low for effective English medium learning at this level. The proficiency range of Indian students taking IELTS is well below C1 on the CEFR and IELTS candidates from the Philippines do better than those from India (Graddol, 2010). There is a growing view that language learning is a long-term endeavor, and English as the second language (ESL) education in India needs to step beyond these short-term measures. It proposes that L2 learners need to be encouraged to learn the language of their own volition (Doley, 2019; Sarwal & Lamb, 2018). It particularly emphasizes the need for connecting L2 research with L2 teaching to work out locally applicable solutions to specific L2 problems. Additionally, studies on the impact of the classroom and the role played by the teacher and their methodology on the learner's motivation for the L2 will increase the impact of L2 motivation research on pedagogy (Ushioda, 2013).

METHOD

Research Design of the study

Since the study was a survey on L2 attitude and motivation among undergraduate ESL learners of India, it began with the selection of the participants and the constitution of the instrument to be used in the study. After testing the reliability of the instrument and finalizing on the appropriate items to be kept in the questionnaire, it was distributed among the participants and the responses provided by the participants were statistically analyzed. The details of the procedure are provided in the following subsections of this method section.

Selection of the participants

Criterion-based sampling was used to select the participants of the study and an attempt was made to create a sampling frame that incorporated representations from some of the basic institutional dimensions. Considering the most common institutional dimensions identifiable in the demography of undergraduate L2 learners in India, the criteria used to select the sample for the present study were program of study, broad regional divisions, location of the campus, and nature of the institutional contexts. There were 501 Indian ESL learner participants in this study, and some of them were from various Indian states

outside the Northeast such as Bihar, West Bengal, Orissa, Chhattisgarh, Jharkhand, Telangana, Uttar Pradesh, etc.

Table 1
Demographic details (P: academic program; E: engineering; H: humanities; M: medical science)

Campus		Region		Institution type		P		Sex[a]	
Urban	149	West	121	Centre	121	E	121	Male	73
								Female	41
		East	28	State	28	E	28	Male	15
								Female	13
Rural	352	East	352	Centre	256	E	122	Male	93
								Female	23
(Total number of Engineering students							271)	(Male	181
								Female	77)
						H	134	Male	33
								Female	101
				State	96	M	96	Male	49
								Female	44
Total							501		485

[a]Sex data not available in some responses.

As the demographic details prepared as per the various criteria of sampling frame shown in Table 1, there were 271 undergraduate engineering students studying in various institutions in Assam, India, distributed across the various dimensions of the frame. On the other hand, the 96 medical and 134 humanities students were from a state-government and a central-government institute respectively, located in rural areas in the eastern part of Assam. As the survey was conducted on undergraduate students (Years 18-22 approximately in the Indian system), the age distribution in all three programs was between 19 and 22. As Table 1 shows, there is a moderately good number of representations in all five subsamples. A larger sample than the present one, it is once again emphasized, would have provided a more comprehensive picture.

Questionnaire preparation

A modified version of the AMTB (Gardner, 1985) was used as the tool for the collection of data in the study. The research tool originally contains a total number of 116 items that may be divided into two broad groups of items- one containing 104 items on a six-point Likert scale and there are 12 items on a seven-point Likert scale in the other. The modified version used in the present study contained only 86 items that were representative of the core variables of the original questionnaire explained in Gardner (1985).

Table 2
Instrument[a] elaboration

Stimulus appraisal (SA) criteria	Attitude & motivation test battery (AMTB) variables	Item count	Examples of the items
Goal significance (GS)	Attitude to English language (AEL)	4	Learning English is really great.
	Motivational intensity in English (MIE)	7	I sometimes daydream about dropping English.
	English learning desire (ELD)	9	To be honest, I have no desire to learn English.
	Foreign language interest (FLI)	6	Studying foreign languages is not enjoyable.
Image (I)	English self-image (ESi)	12	My parents try to help me learn English.
	English social image (ESI)	8	You can always trust native English speakers.
Coping potential (CP)	English language anxiety (ELA)	10	Speaking English anywhere makes me feel worried.
	English class anxiety (ECA)	8	I get nervous when I am speaking in my English class.
Pleasantness (P)	English course evaluation (ECE)	5	I really enjoy learning English.
	English teacher evaluation (ETE)	7	The less I see of my English teacher, the better.
Novelty (N)	English course interest (ECI)	4	I really have no interest in learning English
	English teacher interest (ETI)	6	I think my English class is boring.

[a]Total number of items used for analysis: 86

The principal reason for choosing the AMTB was that it contains the assessment items for the five criteria of SA that had been interpreted as cumulative measures of the assessment variables within the questionnaire (Schumann, 1998). What Gardner (1985) seems to have assessed through the AMTB, Schumann (1998) explains, is the respondents' appraisal of the various activities, agents, and objects in connection with the learning of the L2. Gardner's tool for measuring attitude and motivation is compatible with the stimulus appraisal approach as these appraisals inherently involve attitude and motivation. Gardner (1985) points to this fact in his definition of attitude as an evaluative reaction to some referent based on some beliefs or perceptions about the referent. So, the items in the questionnaire, as shown in Table 2, may provisionally be divided into the five broad SA scales. Of these five SA scales, excluding the scale against the SA criterion of goal significance (GS) with four AMTB subscales, four scales contain two subscales each.

The 4 AMTB subscales with 26 items corresponding to the GS scale were attitude to English learning (AEL), motivational intensity in English (MIE), English learning desire (ELD), and foreign language interest (FLI). The SA variable of self and social image has been rechristened as image (I) in this study and the two dimensions of this variable-self and social image- have been interpreted as AMTB subscales. Furthermore, these two dimensions received a broad interpretation to include the source, not only the target, of the self and social image in this study. An original AMTB subscale like parental encouragement, as shown in English self-image (ESi) in Table 2, for instance, had been

interpreted as a contributing factor in the construction of English language-related self-image in this study.

Data collection and analysis

The period for the collection of data used in this study was the Autumn semester (July-December), 2019. The choice of this semester was driven mainly by two reasons: first, the English communication course for the engineering and medical programs was offered only during the Autumn semester, and second, the engineering and the medical learner samples in the said course were completely new batches.

Table 3
Cronbach's alpha reliability coefficients for the variables

SA variables	Whole sample	AMTB variables	Whole sample	Medical Science	Humanities	Engineering
GS	0.92	AEL	0.7	0.71	0.67	0.7
		MIE	0.71	0.71	0.77	0.67
		ELD	0.81	0.83	0.76	0.82
		FLI	0.77	0.79	0.78	0.75
I	0.88	ESi	0.83	0.84	0.77	0.86
		ESI	0.75	0.75	0.71	0.77
CP	0.9	ELA	0.82	0.87	0.8	0.8
		ECA	0.82	0.89	0.79	0.78
P	0.86	ECE	0.81	0.86	0.72	0.83
		ETE	0.76	0.79	0.71	0.75
N	0.86	ECI	0.83	0.89	0.88	0.73
		ETI	0.75	0.78	0.71	0.74

The six Indian institutions within the state of Assam selected for the collection of data were Tezpur Medical College, Jorhat Engineering College, Jorhat Institute of Science and Technology, Kaziranga University, Tezpur University, and Indian Institute of Technology-Guwahati. An important reason for the selection of institutions within a single Indian state was that the English learning experience of the selected learner populations should share a certain amount of parity in terms of infrastructure and other logistics within the geographical boundary of one state.

After the routine checks and visual inspection of the printed copies of the received questionnaires to spot any indication of incomplete and meaningless questionnaire completion, outliers, and errors (Dörnyei, 2007, You & Dörnyei, 2016), the data were prepared for analysis. A Cronbach's alpha internal consistency reliability analysis was conducted on the data and the reliability coefficients for all the twelve multi-item scales, as Table 3 shows, rendered a satisfactory level of the recommended .70. Even in a couple of subgroups where the coefficients were below the recommended .70 threshold, for instance, MIE in the engineering and AEL in the humanities subsample, the difference was very small. Both fell short only by .03. So, it may safely be concluded, first, that the psychometric quality of the instrument used is satisfactory, and second, that the consistency of the coefficients represents the appropriate quality of the data collection procedure across the three academic programs.

FINDINGS

Sex difference and L2 motivation

The motivational scores measured as per the sex of the three groups of ESL learner samples are shown in Table 4. In four of the five SA scales and ten of the twelve AMTB subscales, the motivational scores of female ESL learners range between 4.50 to 4.86 and 4.38 to 5.05, respectively. The female (whole sample) higher mean value of 4.65 in the SA scale of I gets reflected across the female subsamples excluding the medical sample where it is a bit lower than the mean value for the male ESL learners. This trend is also reflected in the mean values of the corresponding AMTB subscales - ESi and ESI- for the subsamples, excluding the ESI measure of 4.32 for the female medical ESL learner sample in which it is a shade lower than the corresponding score of 4.40 in the male medical ESL learner sample.

Table 4
Motivational distribution as per sex (M=male, F=female)

SA M/F	M/F				AMTB: M/F	M/F			
	WS	E	H	Med		WS	E	H	Med
GS	4.71/4.86	4.57/4.99	4.97/4.65	5.04/5.14	AEL	4.84/ 5.05	4.65/ 5.09	5.29/ 4.92	5.24/ 5.28
					MIE	4.82/ 4.92	4.72/ 4.98	4.99/ 4.79	5.06/ 5.13
					ELD	4.57/ 4.77	4.39/ 4.91	4.82/ 4.52	5.06/ 5.12
					FLI	4.61/ 4.71	4.52/ 4.99	4.80/ 4.35	4.82/ 5.05
I	4.32/4.65	4.22/4.67	4.60/4.69	4.53/4.51	ESi	4.41/ 4.73	4.31/ 4.77	4.65/ 4.72	4.65/ 4.69
					ESI	4.23/ 4.56	4.13/ 4.56	4.53/ 4.67	4.40/ 4.32
CP	3.85/3.79	3.91/4.19	3.71/3.57	3.72/3.59	ELA	4.02/ 3.94	4.05/ 4.27	4.00/ 3.73	3.91/ 3.85
					ECA	3.68/ 3.63	3.77/ 4.1	3.42/ 3.41	3.52/ 3.32
P	4.34/4.63	4.17/4.6	4.63/4.56	4.80/4.84	ECE	4.40/ 4.65	4.22/ 4.77	4.62/ 4.42	4.91/ 5
					ETE	4.28/ 4.58	4.10/ 4.43	4.67/ 4.66	4.69/ 4.67
N	4.30/4.5	4.12/4.59	4.84/4.39	4.60/4.58	ECI	4.45/ 4.6	4.28/ 4.91	4.87/ 4.24	4.77/ 4.89
					ETI	4.17/ 4.38	3.98/ 4.24	4.81/ 4.53	4.44/ 4.28

Against this backdrop, lower motivational scores of 3.79 among the female ESL learners in the SA scale of CP, and 3.94 and 3.63 in the corresponding AMTB subscales of ELA and ECA respectively have been obtained. As shown in Table 4, these scores are lower than the male whole sample CP mean value of 3.85, and the whole sample mean values of 4.02 and 3.68 in the corresponding AMTB subscales.

Differences in L2 motivation across academic programs

The three groups of ESL learner samples show significant differences in all the SA scales and the corresponding AMTB subscales across the academic disciplines. As shown in Table 5, the difference is strongly distributed in the engineering sample in comparison with the humanities and the medical sample where there are points of convergence at least in the AMTB subscales of ESi and ECA.

Table 5
Comparisons of SA and AMTB scores for the three programs

Variables		*M*: E/H/Med	*SD*: E/H/Med	*F*	Sequence[a]	Effect size[b]
SA	AMTB					
GS		4.67/4.73/5.11	.78/.89/.77	10.52***	E < H < Med	0.041
	AEL	4.76/5.01/5.27	1.01/1.06/.91	9.74***	E < H < Med	0.038
	MIE	4.79/4.84/5.12	.85/.95/.80	5.01**	E < H < Med	0.02
	ELD	4.51/4.59/5.11	.92/.90/.84	15.84***	E < H < Med	0.06
	FLI	4.63/4.46/4.94	.93/1.13/.97	6.64**	H < E < Med	0.026
I		4.33/4.67/4.52	.84/.69/.71	8.69***	E < Med < H	0.034
	ESi	4.42/4.70/4.68	.92/.81/.79	5.78**	E < Med, H	0.023
	ESI	4.23/4.63/4.37	.91/.73/,79	9.50***	E < Med < H	0.037
CP		3.98/3.60/3.65	.84/.94/1.10	9.33***	H < Med < E	0.036
	ELA	4.10/3.80/3.89	.88/.98/1.09	5.15**	H < Med < E	0.02
	ECA	3.86/3.41/3.41	.93/1.02/1.20	12.11***	H, Med < E	0.046
P		4.27/4.58/4.85	.92/.93/.95	15.14***	E < H < Med	0.057
	ECE	4.34/4.47/4.98	1.08/1.10/1.13	12.10***	E < H < Med	0.047
	ETE	4.18/4.66/4.71	.93/.88/.98	17.82***	E < H < Med	0.068
N		4.24/4.50/4.62	.93/1.21/1.14	5.62**	E < H < Med	0.022
	ECI	4.46/4.40/4.86	1.10/1.57/1.44	4.13*	H < E < Med	0.016
	ETI	4.04/4.60/4.39	.95/1.00/1.07	15.70***	E < Med < H	0.06

[a]'<' represents significant difference; ',' represents non-significant difference.
[b]Eta^2.
*p<.05; **p<.01; ***p<.001.

It is curious to note that the mean values for the medical sample are higher than the mean values of the engineering and humanities samples in three of the five SA scales. Excluding the mean value of 4.39 in ETI, this trend is significantly and consistently reflected in all the AMTB subscales in which the mean values are very close to the maximum response scores, creating large margins of difference from the mean values of the other two samples. It is counterintuitive as the motivation score for ESL in all the scales and subscales is implicated to be higher in general for the humanities sample solely constituted of students studying English literature as their major. However, the mean value of 4.67 for the humanities sample is higher than the mean values of the engineering and the medical sample in the SA scale of I, whereas the mean of 3.98 for the engineering sample is significantly higher than the mean values of the humanities and the medical samples in the SA scale of CP.

Instructional contexts, L2 motivation, and academic programs

As shown in the t-test statistics in Table 6, there are three subgroupings in the ESL learner samples concerning contrasts in the instructional contexts: rural/urban, centrally

funded/state-controlled, and east/west. Contrary to initial expectations, learner populations studying in the state-controlled rural institutions in the eastern region of the Indian state of Assam, consistently show higher motivation for ESL learning in four of the five SA scales and the corresponding AMTB subscales.

In GS and I, the rural and urban divide of the learner populations is 4.84 vs. 4.61 and 4.54 vs. 4.27, respectively. In the classroom-related SA scales of P and N along with all the AMTB subscales corresponding to these two SA scales, and GS and I, this divide is reflected further. As far as the subsamples of institution type and regional location are concerned, the difference in mean values in the GS scale for the state-controlled institutions against the centrally funded ones and institutions located in the east against the institutions in the west are 5.20 vs. 4.64 and 4.89 vs. 4.42, respectively. The corresponding AMTB scales also consistently display a higher motivational slant in favor of the learner populations in these institutions.

Table 6
t-test results of the comparison of the scores of the various institutional contexts (R=rural, U=urban; C=central, S=state; E=east, W=west)

Variables		R vs. U		C vs. S		E vs. W	
SA	AMTB	*t*-value	Effect size[a]	*t*-value	Effect size	*t*-value	Effect size
GS		2.91**	0.02	6.62***	0.08	5.54***	0.06
	AEL	3.12**	0.02	5.67***	0.06	5.63***	0.06
	MIE	1.76*	0.006	4.74***	0.04	3.76***	0.03
	ELD	2.84**	0.02	7.53***	0.1	5.40***	0.05
	FLI	2.24*	0.01	4.81***	0.04	4.21***	0.03
I		3.51***	0.025	2.94**	0.02	6.01***	0.07
	ESi	3.12**	0.02	3.11**	0.02	5.04***	0.05
	ESI	3.24**	0.02	2.28*	0.01	5.83***	0.06
CP		-2.24*	0.01	-1.11	0.002	-1.73	0.006
	ELA	-0.88	0.002	-0.57	0.001	-0.53	0.001
	ECA	-3.27**	0.02	-1.5	0.004	-2.67*	0.01
P		3.10**	0.02	6.33***	0.07	5.54***	0.06
	ECE	2.23*	0.01	6.67***	0.08	4.61***	0.04
	ETE	3.55***	0.02	5.00***	0.05	5.68***	0.06
N		2.37*	0.01	4.62***	0.04	4.96***	0.05
	ECI	1.18	0.003	4.53***	0.04	3.17**	0.02
	ETI	3.38**	0.02	3.77***	0.03	6.26***	0.07

[a]Eta^2.
$^*p< .05$; $^{**}p<.01$; $^{***}p <.001$.

The higher cumulative mean values of 4.43 vs. 4.27, 4.65 vs. 4.30, and 4.47 vs. 4.10 for the subsamples of rural, state-controlled, and eastern institutions respectively against the contrasted subsamples of urban, centrally funded, and western institutions also confirm higher ESL motivation among learner populations in these institutions. On the other hand, in CP and the corresponding AMTB subscales of ELA and ECA, the difference in motivation score among the subsamples is either marginal or not significant at all. The effect sizes are as low as between .001 and .02 in CP and the corresponding AMTB

subscales across subsamples, unlike the consistently higher effect sizes between .01 to .08 in the four other scales across the same subsamples.

Coping potential, pleasantness, novelty, and goal significance

An elaborate understanding of the influence of a classroom environment on ESL learners beyond the classroom and vice versa concerning L2 attitude and motivation may have significant pedagogical value for ESL learning. ESL learners' realization of the significance of learning English before the actual ESL classroom experience should have implications for the learner's classroom behavior as per the classroom-related motivational scales of SA. Contrariwise, learners' ESL classroom experience along the classroom-related SA scales should also influence the learner's realization of the significance of learning the language.

Table 7
Correlations between CP, P, and N with GS[a]

SA Variables	Sex	Whole sample	Engineering	Humanities	Medical
	Male	0.35	0.28	0.53	0.6
	Female	0.52	0.31	0.66	0.58
P		0.84	0.81	0.87	0.84
	Male	0.83	0.79	0.86	0.87
	Female	0.84	0.83	0.89	0.81
N		0.79	0.7	0.9	0.85
	Male	0.76	0.66	0.9	0.9
	Female	0.82	0.72	0.89	0.79

[a]All the coefficients are significant.

As a measure of this relationship across the subsamples, the correlations of the three ESL classroom experience-related scales of CP, P, and N with the more externally induced ESL attitude represented by the scale of GS are presented in Table 7. With the correlation intensity ranging from .35 to .84 in the whole sample, the correlation between P and GS records the highest intensity of .84, and the correlation between CP and GS, as expected, shows the lowest intensity level of .42. Female ESL learner samples show higher intensity levels across the scales, and it is remarkably higher (.52) than the male (.35) sample even in CP. Almost a similar trend is observed in the subsamples of engineering, humanities, and medical learner populations across these scales. The humanities sample displays higher intensity correlations of .63, .87, and .90 in CP, P, and N with GS respectively than the engineering and medical samples. Here again, it may be stated that the similarity of the correlation coefficients between the humanities and medical samples in the SA scales is more significant than the ones with the engineering sample. But the influence of sex differences on the correlations is significantly different in the medical sample. A series of correlations coefficients of .60 vs .58 in CP, .87 vs. .81 in P, and .90 vs .79 in N with GS in favor of the male subsample has been recorded against a general trend of higher female correlations coefficients observed in the humanities and engineering samples.

Coping potential, pleasantness, novelty, and image

Another pedagogically important statistical measure of the correlations between the three classroom-related SA scales and one more externally induced SA scale of I is presented in Table 8. Generally, high motivation scores in L2 related self and social image together with a tendency of a direct correlation between these image related scales and readiness to increase achievement level in the L2 have been observed among L2 learners (e.g., Kormos and Csizer, 2008; Taguchi et al., 2009; Papi, 2010; Lamb, 2012; Islam et al., 2013; Dörnyei, 2016).

Table 8
Correlations between CP, P, and N with I[a]

SA Variables	Sex	Whole sample	Engineering	Humanities	Medical
	Male	.01*	.06*	.05*	-.05*
	Female	.23*	.13*	0.35	.24*
P		0.6	0.69	0.6	0.29
	Male	0.61	0.67	0.51	0.34
	Female	0.55	0.69	0.64	0.23
N		0.38	0.42	0.4	0.23
	Male	0.42	0.41	0.44	0.33
	Female	0.33	0.39	0.42	.13*

aAll the coefficients are significant if not indicated otherwise.
*Not significant.

The correlations coefficients of CP, P, and N measured with I, as shown in Table 8, is relatively lower than the correlations coefficients observed with GS. In the whole sample, it ranges between a non-significant coefficient of .10 in CP and a comparatively more significant coefficient of .60 in P. In the two relatively more significant scales of P and N, the male sample shows marginally higher coefficients of .61 vs. .55 and .42 vs. .33 respectively than their female counterparts. As far as the academic programs are concerned, the engineering sample displays higher coefficients of .69 in P and .42 in N compared to the other two subsamples. The trend of higher coefficients associated with the male sample is consistent in N, but a different trend is observed in P. The coefficients for CP are below the significant threshold coefficient of .27 in all the subsamples. Additionally, it is curious to observe that the correlation coefficients in the medical sample are consistently lower than the coefficients for the other two samples ranging between -.05 and .34 (well below the average coefficients for the whole sample!).

DISCUSSIONS

The first research question of the study was about the differences and similarities in ESL motivation among the three ESL learner groups caused by the influence of sex differences. The mean values as per the sex differences for the whole sample show result consistent with findings in earlier studies on motivation in learning English (e.g., You & Dörnyei, 2016). The motivation scores of the female ESL learners are relatively higher than the motivation scores of the male ESL learners and it may be for reasons associated with robust self-construal influenced by qualities of interdependence and interpersonal

self-other interactions among women (Henry, 2010b; Henry & Cliffordson, 2013). Another significant aspect of this finding is that the female ESL learners in the present sample scored more than the male ESL learners in the motivational SA scale of self and social image. Since this scale assessed the dimensions of parental encouragement and societal expectations, this result may lead to a provisional proposition that the systematic gender differences generally observed in L2 motivation (Henry, 2010b; Henry & Cliffordson, 2013; Reilly & Sanchez-Rosas, 2021; Saif, 2018) but not significantly understood in the scales of "Ought to L2 Self and Parental Expectations" in You and Dörnyei (2016), may also possibly be extended to the motivational dimensions of self and social image.

The second research question of the study was about the effect of academic disciplines on undergraduate Indian ESL learners. Previous studies related to this research question pointed toward the fact that length of exposure to an L2 may have an impact on its appraisal (e.g., Dörnyei, 2016; Islam et al., 2013; Kormos and Csizer, 2008; Lamb, 2012; Papi, 2010; Taguchi et al., 2009; You &Dörnyei, 2016). The findings of the present study also demonstrated a similar trend. It may therefore be considered reasonable to propose four possibilities in connection with the differences in ESL motivation across academic disciplines in India. First, medical students show a higher motivational attitude towards ESL than the students of the other two programs. This fact may be ascribed to their perception of English as highly important in achieving career goals and performing related practical communications. Second, medical students in India show a more positive attitude towards classroom-related English language activities. Although the local reasons for this positivity cannot be clearly understood in this study, it might not be out of place to propose, as the mean values across the AMTB subscales of the SA scales of P and N show higher trends, that it may be the result of a positive classroom environment. Third, humanities students have a higher self and social image-related motivation slant for English than the other two samples, at least more than the engineering sample. Since the humanities sample is constituted of ESL learners with comparatively more exposure to the English language and culture than the other two samples, they are expected to show more enthusiasm in the self and social image-related scales.

The third research question of the study was about the similarities or differences among the three groups of undergraduate Indian ESL learners in the influence of instructional context on their ESL motivation. We may once again propose here that sampling of ESL learners according to their academic programs may show more meaningful ESL motivational difference in the Indian context if there is any than teachings contexts otherwise structured; very unlike the higher motivational scores measured in the urban/rural division of English learner samples in Chinese teaching contexts (You & Dörnyei, 2016). Moreover, the lower effect sizes in CP and the corresponding AMTB subscales among all the subsamples may also indicate a similar trend. Since the engineering sample contains equal representation from both rural/urban and east/west divide and they together form the major chunk of the data in the centrally funded subsample, the magnitude of difference for the teaching contexts subsample must have been influenced by the higher motivational score in CP and the corresponding AMTB

subscales for the engineering subsample. So, unlike what has been reported in previous studies (e.g., Lamb, 2012) who is studying what and for what purpose may have more meaningful implications for ESL learning in the Indian context than who is studying where!

Understanding the differences or similarities in the effect of goal significance on the SA criteria of coping potential, pleasantness, and novelty among the three groups of learners was the objective of the fourth research question. The instrumentality aspect of L2 motivation tends to have an effect across the three ESL learner groups confirming previous findings (You & Dörnyei, 2016). It has been observed that the correlations coefficients between CP and GS, no matter which academic program, is lowest among the three classroom-related SA scales. Higher coping potential challenges resulting from an anxious L2 classroom environment can be negatively associated with the realization of the significance of the L2. Despite the instrumental importance of ESL present in the milieu, an ESL classroom with high intensity coping potential may not at all contribute to the consolidation of this realization. A constantly anxious ESL learner may willfully deny the importance of the L2!

The fifth research question of the study was about the differences or similarities among the three undergraduate Indian ESL learner groups in the effect of the SA criterion of self/social image on coping potential, pleasantness, and novelty. Unlike what had been observed in previous studies on the L2-self dimension of L2 motivation (e.g., Dörnyei, 2009, Islam et al., 2013, Papi, 2010), it has been noted in the present study that self and social image building in ESL learning in India may not have direct and highly significant correlations with ESL classroom environment and activities. There may be other more important factors outside the ESL classroom that contribute to the construction of a positive self and social image in the L2. It is not, however, implied at all that L2-related self and social image building never occurs inside the ESL classroom. It may only function as a complementary factor in which the bigger picture is always dependent on factors beyond the ESL classroom.

CONCLUSIONS

The study led to several useful insights about the nature of L2 attitude and motivation among undergraduate ESL learners of India. It demonstrated that L2 attitude and motivation among Indian ESL learners was affected by sex differences, differences in academic discipline, and differences in instructional context to a certain degree. The study led to an understanding of the various motivational dimensions within the SA approach that influence adult ESL learners at multiple levels.

One significant implication from the perspective of formal instruction of L2 is that what transpires in the L2 classroom and how it transpires may have larger L2 motivational significance. The realization of the goal significance of the L2 by the L2 learners is strongly associated with pleasantness and novelty dimensions of motivation. ESL classrooms with an L2-friendly pleasant ambiance engaging the L2 learners with novel L2 activities that excite interest should be more successful both in making the learners realize the significance of the L2 and consolidating the already acquired realization of

the goal significance of the L2. Conversely, high coping potential in the sense of general language anxiety created because of initial failure and L2 classroom anxiety emanating from an ineffective L2 instruction or other factors have positive correlations neither with the realization of the goal significance of the L2 nor with the construction of a positive self and social image in the L2. This fact is true even for the groups otherwise showing significantly higher motivational signs across the SA scales.

The biggest limitation of the present study, however, was the sample size. A larger sample with a more geographically appropriate distribution than the present one representing the various zones of India would have provided a more comprehensive picture. This is particularly true for a vast country like India with crores of ESL learners at the undergraduate level. Any further study of L2 attitude and motivation among ESL learners in the country using the SA dimensions conducted in the future should do well to keep this fact in mind.

CONFLICT OF INTEREST

The study does not involve any conflict of interest with any individual or institution.

ACKNOWLEDGMENT

The author acknowledges gratitude to the Department of Science & Technology, Ministry of Science and Technology, Government of India for providing the financial assistance to undertake the study.

REFERENCES

Annamalai, E. (2005). Nation-building in a globalized world: Language choice and education in India. In A.M.Y. Lin & P. Martin (Eds.), *Decolonization, globalization: Language-in-education policy and practice* (pp. 20-37). Clevedon, UK: Multilingual Matters.

Arnold, M.B. (1960). *Emotion and personality*. New York: Columbia University Press.

Bernaisch, T. & Koch, C.A. (2016). Attitude towards Englishes in India. *World Englishes, 35*(1), 118-132. https://doi.org/10.1111/weng.12174

British Council. (2016). *Social attitude towards the English language in Bihar*. Kolkata: British Council.

Brown, J., & Weiner, B. (1984). Affective consequences of ability versus effort ascriptions: Controversies, resolutions, and quandaries. *Journal of Educational Psychology, 76*(1), 146-158. https://doi.org/10.1037/0022-0663.76.1.146

Doley, S. K. (2019). Discourse pattern in ESL classrooms in India. *International Journal of Instruction, 12*(1), 1223-1238. https://doi.org/10.29333/iji.2019.12178a

Dörnyei, Z. (2007). *Research methods in applied linguistics: Quantitative, qualitative, and mixed methodologies*. Oxford University Press.

Dörnyei, Z. (2009). *Motivation, language identity, and L2 self*. Multilingual Matters.

Ellsworth, P.C. (2013). Appraisal theory: Old and new questions. *Emotion Review, 5*, 119-124. https://doi.org/10.1177/1754073912463617

Frijda, N.H. (1986). *The emotions*. New York: Cambridge University Press.

Gardner, R. (1985). *Social psychology and second language learning: The role of attitudes and motivation*. London: Edward Arnold.

Gardner, R.C. & Lambert, W.E. (1972). *Attitudes and motivation in second language learning*. Newbury house.

Gehm, T., & Scherer, K. R. (1988). Relating situation evaluation to emotion differentiation: Nonmetric analysis of cross-cultural questionnaire data. In K.R. Scherer (Ed.), *Facets of emotion: Recent research* (pp. 61-77). Hillsdale, NJ: Lawrence Erlbaum.

Gill, A & Vashisht, V. G. (2015). Motivation factors of learning English in government schools. *International Journal of Multidisciplinary Research and Development, 2* (5), 336-338.

Goetz, T., Keller, M.M., Ludtke, O., Nett, U. E., Lipnevich, A.A. (2020). The dynamics of real-time classroom emotions: Appraisals mediate the relation between students' perceptions of teaching and their emotions. *Journal of Educational Psychology, 112*(6), 1243-1260. https://doi.org/10.1037/edu0000415

Graddol, D. (2010). *English next -India*. London: British Council.

Henry, A. (2010b). Gender differences in L2 motivation: A reassessment. In S. A. Davies (Ed.), *Gender gap: Causes, experiences, and effects* (pp. 81-102). Nova Science.

Henry, A & Cliffordson, C. (2013). Motivation, gender, and possible selves. *Language Learning, 63*(2), 271-95. https://doi.org/10.1111/lang.12009

Islam, M., Lamb, M., & Chambers, G. (2013). The L2 motivational self-system and national interest: A Pakistani perspective. *System, 41*, 231-44. https://doi.org/10.1016/J.SYSTEM.2013.01.025

Joshi, S. (2015). An analysis of cause of English language anxiety amongst hotel management students and its impact on their academic performance. *The International Journal of Science and Technoledge, 3*(6), 224-228.

Kaur, B & Bhangu, J.P.K (2013). Effects of anxiety on Indian engineering students in the foreign language classroom. *International Journal of English and Literature, 3*(4), 49-60.

Khastgir T., & Neogi, S. (2017). Attitude towards English language acquisition. *IJDR, 7*(7), 13634-13637. https://www.journalijdr.com/sites/default/files/issue-pdf/9213.pdf

Kormos, J. & Csizer, K. (2008). Age related differences in motivation of learning English as a foreign language: Attitudes, selves, and motivated behaviour. *Language learning, 58*(2), 327-55. https://doi.org/10.1111/j.1467-9922.2008.00443.x

Kulkarni, R. (2016). Attitude towards English language of IX standard students. *Indian Streams Research Journal, 5* (12), 1-6. https://doi.org/ 10.9780/22307850

Lamb, M. (2012). A self-system perspective on young adolescents' motivation to learn English in urban and rural setting. *Language Learning, 62*(4), 997-1023. https://doi.org/10.1111/j.1467-9922.2012.00719.x

Lavoué, E., Kazemitabar, M., Doleck, T., Lajoje, S. P., Carrillo, R., & Molinari, G. (2020). Towards emotion awareness tools to support emotion and appraisal regulation in academic contexts. *Educational Technology Research and Development, 68*(1), 269-292. https://doi.org/10.1007/s11423-019-09688-x

Lazarus, R. S. (1991*). Emotion and adaptation*. New York: Oxford University Press.

Lazarus, R. S. & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer Publishing Company.

Lazarus, R. S. & Smith, C. A. (1988). Knowledge and appraisal in the cognitive-emotion relationship. *Cognition and Emotion, 2*(4), 281-300. https://doi.org/10.1080/02699938808412701

Lukmani, Y. M. (1972). Motivation to learn and language proficiency. *Language Learning, 22*(2), 261-273. https://doi.org/10.1111/j.1467-1770.1972.tb00087.x

Meganathan, R. (2011). Language policy in education and the role of English in India: From library language to language of empowerment. In H. Coleman (Ed.), *Dreams and realities: developing countries and the English language* (pp. 57-85). London: British Council.

Meganathan, R. (2015). English language education situation in India. *Journal of English as an International Language, 10*(1), 48-66. https://www.eilj.com/journals/2015-journals/volume-10-issue-1-may-2015/

Moors, A. (2020). Appraisal theory of emotion. In V. Zeigler-Hill & T.K. Shackelford (Eds.), *Encyclopaedia of personality and individual differences*. https://doi.org/10.1007/978-3-319-28099-8_493-1

Ortony, A., Clore, G.L, & Collins, A. (1988). *The cognitive structure of emotions*. New York: Cambridge University Press.

Padwick, A. (2010). *Attitudes towards English and varieties of English in globalizing India*. University of Groningen, Newcastle: England.

Papi, M. (2010). The L2 motivational self-system, L2 anxiety, and motivated behaviour: A structural equation modelling approach. *System, 38*(3). 467-79. https://doi.org/10.1016/j.system.2010.06.011

Patil, M. A. &Jagadale, D. H. (2018). Anxiety as a barrier in English language learning: A case study of BSc III students from Maharashtra. In B. Tomlinson & A. Keedwell (Eds.), *Explorations: Teaching and learning English in India: Issue 11. Understanding learners- Researching learners' perception* (pp. 31-45). Kolkata: British Council.

Planning Commission (2007). *Eleventh Five Year Plan*. New Delhi: Govt. of India.

Pramanik, T. K. (1981). *A study of the attitude and motivation for learning English at the first degree-level in the district of Cuttack*. M. Litt. EFLU, Hyderabad.

Reilly, P., & Sanchez-Rosas, J.S. (2021). Achievement, emotions, and gender differences associated with second language testing. *International Journal of Instruction, 14*(4), 825-840. https://doi.org/10.29333/iji.2021.14447a

Roseman, I. J. (1984). Cognitive determinants of emotion: A structural theory. In P. Shaver (Ed.), *Review of personality and social psychology: Vol. 5. Emotions, relationships, and health* (pp.11-36). Beverly Hills, C4: Sage.

Roseman, I. J. (2013). Appraisal in the emotion system: Coherence in strategies for coping. *Emotion Review, 5* (2), 141-149. https://doi.org/10.1177/1754073912469591

Saif, M.M. (2018). Obtaining reliable human ratings of valence, arousal, and dominance for 20,000 English words. Proceedings of The Annual Conference of the Association for Computational Linguistics. Association for Computational Linguistics. https://doi.org/10.18653/v1/P18-1017

Sailaja, P. (2009). *Indian English*. Edinburgh: Edinburgh University Press.

Saranraj, L., Khan, Z., & Zafar, S. (2016). Influence of motivational factors and gender differences on learning English as a second language: A case of engineering students from rural background. *Indian Journal of Science and Technology, 9*(44), 1-7.

https://doi.org/10.17485/ijst/2016/v9i44/99721

Sarwal, A. & Lamb, M. (2018). Learner perceptions in inspiring English teachers in northern India. In B. Tomlinson & A. Keedwell (Eds.), *Explorations: Teaching and learning English in India: Issue 11. Understanding learners- Researching learners' perception* (pp. 20-27). Kolkata: British Council.

Scherer, K. R. (1984). Emotion as a multi-component process: A model and some cross-cultural data. In P. Shaver (Ed.), *Review of personality and social psychology: Vo. 5. Emotions, relationships, and health* (pp.37-63). Beverly Hills, CA: Sage.

Scherer, K. R. (1993). Studying the emotion-antecedent process: An expert system approach. *Cognition and Emotion, 7*(3), 325-355. https://doi.org/10.1080/02699939308409192

Scherer, K. R. (2009). The dynamic architecture of emotion: Evidence for the component process model. *Cognition and Emotion, 23*(7), 1307-1351.

https://doi.org/10.1080/02699930902928969

Schumann, J. H. (1998). *The neurobiology of affect in language*. Oxford: Blackwell.

Schumann, J.H. (2001). Appraisal psychology, neurobiology, and language. *Annual Review of Applied Linguistics, 21,* 23-42. https://doi.org/10.1017/S0267190501000022

Smith, C. A. & Ellsworth, P. C. (1985). Patterns of cognitive appraisal in emotion. *Journal of Personality and social psychology, 48*(4), 813-838. https://doi.org/10.1037/0022-3514.48.4.813

Smith, C.A., & Lazarus, R. S. (1993). Appraisal components, core relational themes, and emotions. *Cognition and Emotion, 7*(3-4). 233-269. https://doi.org/10.1080/02699939308409189

Taguchi, T., Magid, M., & Papi, M. (2009). The L2 motivational self-system among Japanese, Chinese, and Iranian learners of English: A comparative study. In Z. Dornyei & E. Ushioda (Eds.), *Motivation, language identity and the L2 self* (pp. 66-97). Multilingual Matters.

Thomas, C. L., & Cassady, J.C. (2019). The influence of personality factors, value appraisals, and control appraisals on cognitive test anxiety. *Psychology in the Schools, 56* (10), 1568-1582. https://doi.org/10.1002/pits.22303

Ushioda, E. (ed). (2013). *International perspectives on motivation: Language learning and professional challenges*. Basingstoke: Palgrave Macmillan.

Veettil,R. P. (2013). Attitudes to varieties of English: The postcolonial scenario. *ELT Voices-India, 3*(6),10-15. http://eltvoices.in/Volume3/Issue_6/EVI_36_2.pdf

Weiner, B. (1985). An attribution theory of achievement motivation and emotion. *Psychological Review, 92* (4), 548-573. https://doi.org/10.1037/0033-295X.92.4.548

Weiner, B. (1986). *An attribution theory of motivation and emotion*. New York: Springer-Verlag.

Yadav, S.K. (2011). *National study on ten-year school curriculum implementation*. New Delhi: NCERT.

You, C. J. & Dörnyei, Z. (2016) Language learning motivation in China: Results of a large-scale stratified survey. *Applied Linguistics, 37*(4). 495-519 https://doi.org/10.1093/APPLIN/AMU046