# It's my luck: impostor fears, the context, gender and achievement-related traits

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## Abstract

**Purpose** – Although the impostor phenomenon is attributed to childhood experiences, theory on achievement motivation indicates that achievement-related fears can also be elicited by the context. Using achievement goal theory as a base, the authors investigate the effect of context-dependent predictors, job-fit, career stage and organisational tenure, on impostor fears. The authors also examined gender and the achievement-related traits, self-efficacy and locus of control, as predictors of impostor fears to advance knowledge on antecedents to impostor fears.

**Design/methodology/approach** – Two studies were conducted with 270 and 280 participants, each. In Study 1, a subset of 12 respondents participated in follow-up interviews.

**Findings** – Impostor fears tended to be predicted by organisational tenure and career stage in both studies and job-fit in Study 1. Self-efficacy and locus of control predicted impostor fears. Men and women reported similar levels of impostor fears.

**Practical implications** – The authors demonstrate the importance of context in eliciting impostor fears and partially support initial descriptions of antecedents to impostor fears. The findings contribute to the development of targeted managerial practices that can help with the development of interventions, such as orientation programmes, that will enhance socialisation processes and mitigate impostor fears.

**Originality/value** – The literature on imposter fears has not addressed their situational predictors, which the authors argue are important elements in the genesis and maintenance of impostor fears. The authors draw on achievement goal theory to explain the pattern of findings related to key situational characteristics and their influence on impostor fears. The findings for Sri Lanka, on personality predictors, are similar to those reported in studies focused on North America providing evidence of cross-cultural applicability of the concept.

**Keywords** Impostor phenomenon, Gender, Self-efficacy, Locus of control, Organisational tenure, Person-job fit, Career stages, Sri Lanka

**Paper type** Research paper

## Introduction

The impostor phenomenon was introduced to describe accounts from therapy sessions in which women, who are highly successful, paradoxically reported feelings of alienation at work (Clance and Imes, 1978; Clance and O'Toole, 1987). These women described a sense of

intellectual "phoniness", questioned their competence and attributed success to reasons external to themselves, such as luck (Clance and Imes, 1978). Subsequent research indicated that men, like women, experience impostor fears (e.g. Castro *et al.*, 2004; Cowman and Ferrari, 2002), even though some evidence suggests that women experience more of them (e.g. Badawy *et al.*, 2018; Clance and Imes, 1978; Cowie *et al.*, 2018; Gibson-Beverly and Schwartz, 2008; Kumar and Jagacinski, 2006). These findings highlight inconclusive results with regard to gender's effect on impostor fears and the need for further research.

Impostor fears are dysfunctional. They predict poor mental health and psychological distress, including anxiety, depressive tendencies and emotional exhaustion (Chrisman *et al.*, 1995; Clance and Imes, 1978; Clance and O'Toole, 1987; Gibson-Beverly and Schwartz, 2008; Hutchins, 2015; Lane, 2015; Topping and Kimmel, 1985). They are also related to maladaptive achievement-related responses, such as self-handicapping and performance avoidant achievement goals (Cowman and Ferrari, 2002; Kumar and Jagacinski, 2006; Want and Kleitman, 2006). In organisational settings, they are positively associated with ineffective career related behaviour (Neureiter and Traut-Mattausch, 2017) and negatively associated with valued organisational outcomes, such as citizenship behaviour, affective commitment, self-rated productivity and job satisfaction (Grubb and McDowell, 2012; Ling *et al.*, 2020; Vergauwe *et al.*, 2015). As a result, individuals' quality of work life and, by extension, their effectiveness at work can be affected by impostor fears.

The impostor phenomenon is demonstrated to be a consequence of stable and dysfunctional achievement-related traits that develop as a result of childhood experiences. Clance and Imes (1978) describe impostors as having received unhealthy childhood messages regarding achievement; messages of incompetence and of having to be perfect and never failing. Consistent with this perspective, the role of stable achievement-related traits such as generalised self-efficacy and locus of control, in predicting impostor fears is empirically supported (e.g. Ross *et al.*, 2001; Vergauwe *et al.*, 2015). This perspective neglects to examine the role of the situation, or organizational context, in fostering impostor fears. Preliminary evidence suggests that circumstances do matter. For instance, Hutchins (2015) found that untenured faculty reported greater impostor fears than tenured faculty. Considering how detrimental impostor fears can be, investigating such predictors, change of which is likely to be within the control of organizational actors, can be of benefit to both organizations and the employees who experience them.

Theory and findings in achievement motivation provide a basis for examining situational predictors of impostor fears, which demonstrate that maladaptive responses to achievement have contextual, as well as, stable bases. For instance, characteristics of classrooms or task environments can play a significant role in the use of adaptive and maladaptive response patterns in achievement contexts (Dweck, 1999; Hans and Stieha, 2020; Kumar and Jagacinski, 2011; Meece *et al.*, 2006). Therefore, contextual or situational characteristics are likely to influence impostor fears as well, despite not having received must attention in the literature (Vergauwe *et al.*, 2015). In fact, being a newcomer seems to particularly elicit such fears (Craddock *et al.*, 2011). We specifically examine the role of perceptions of job-fit, organisational tenure, and career stage as indicators of the extent to which the individual may be comfortable with the context because experiencing misfit, being new to one's organisation, and being early in one's career may cause an individual to experience a sense of fraudulence at work. We also examine gender and achievement-related traits associated with impostor fears, as specified in the early literature in the area. By doing so, we contribute to the literature in a number of ways. Firstly, we contribute to the literature on impostor fears by investigating and providing a theoretical basis for how work contexts can contribute to impostor fears. Secondly, we provide a unique perspective to studying the effects of organisational tenure by using impostor fears to capture the often unpleasant experience of being new. Finally, by basing this study on Sri Lanka, our research explores the extent to which impostor fears as a construct is valid across geographical and cultural boundaries.

## Impostor fears as a maladaptive response in achievement contexts

Many accounts of impostor fears describe it as a maladaptive response to an achievement context. Literature on achievement motivation suggests that individuals may demonstrate adaptive or maladaptive learning patterns in achievement contexts (Dweck, 1986). Identifying when such maladaptive response patterns emerge has received substantial attention within the achievement goal theory (e.g. Dweck, 1999). Dweck (1999) describes an adaptive pattern characterised by "hardiness" when confronted with difficulty, where individuals see difficulty as challenge and as opportunity to learn. Those approaching difficulty with such hardiness adopt a growth mindset (Dweck, 2006; Hans and Stieha, 2020; Yeager *et al.*, 2019).

In contrast, a maladaptive pattern of responses, or "helplessness", orients individuals to avoid challenge and to give up easily when confronted with difficulty. Those exhibiting helplessness tend to view performance difficulties as failures and attribute these failures to a lack of ability, or in other words, to internal and stable causes. Thus, helplessness can cause individuals to fear that their experiences of difficulty will reveal these perceived *stable* deficiencies in ability. Because failure is closely tied to a stable conception of ability (see also Nicholls, 1984; Yeager *et al.*, 2019), the experience of difficulty can be anxiety provoking and result in negative affective reactions.

Consider employees experiencing difficulties in completing their tasks. If they attribute their difficulties to a lack of intelligence, a static (stable) personal attribute, there is little they will feel they can due to increase their competence. Such an attributional pattern is likely to result in a fear of being "found out" and of being a failure. In such a context, failure will unfortunately not be a source of growth and development. Therefore, individuals experiencing helplessness are unlikely to expect performance improvements in the future as a result of failure (Dweck, 1999, see also Hans and Stieha, 2020).

A helpless response pattern is characterised by a low sense of competence, internal and stable attributions to explain performance setbacks and high anxiety and negative affect, and low feedback and help seeking (see Dweck, 2015; Dweck, 1999; Stoeber *et al.*, 2007; VandeWalle, 2003). Descriptions of impostors portray them as using a similar maladaptive response pattern (e.g. Ferrari and Thompson, 2006).

## Gender and achievement-related traits as stable predictors of impostor fears

The maladaptive response patterns exhibited by impostors seem to be a result of unhealthy systematic childhood encounters in which they were unable to develop functional conceptions of their competence (Clance and Imes, 1978; Clance and O'Toole, 1987). Dweck *et al.* (1980) through a series of studies demonstrates that girls are more likely than boys to be susceptible to helplessness and making internal generalised attributions for failure. For instance, they may make global attributions about their competence when confronted with failure, which can result in more debilitating outcomes for girls. Girls were also more likely to have lower expectations of success than boys, even in a new and different achievement context, even though they had actually performed better than boys. Healthy attributional patterns are particularly beneficial to women in male-dominated or "difficult" settings (see Degol *et al.*, 2018).

Consistent with such gender differences, Clance and Imes (1978) identified impostor fears specifically in women. Later research, however, demonstrates conflicting findings. While men, like women, seem to experience such fears by some accounts (e.g. Castro *et al.*, 2004; Cowman and Ferrari, 2002), by others, women experience more of them (e.g. Badawy *et al.*, 2018; Cowie *et al.*, 2018). The reason for these contradictory findings is unknown. Nevertheless, because we are exploring impostor fears in Sri Lanka, a new context, we decided to first test the initial proposition made by Clance and colleagues that women were more likely to experience impostor fears than men.

*H1.* Women will report higher impostor fears than men.

Continued experiences of success, according to Clance and Imes (1978), do not seem to reduce impostor fears. Research exploring traits as antecedents provide support for such hypotheses (see Ross *et al.*, 2001; Vergauwe *et al.*, 2015). With respect to achievement domains, initially impostor fears were described as characterised by tendencies towards doubting one's ability, and attributing success to external causes and to chance or luck (Clance and Imes, 1978). Self-doubts, Clance and Imes (1978) suggest, stem from the fragility of one's self-concept, consistent with accounts of the helplessness response pattern in achievement goal theory. In support, empirical evidence indicates that impostor fears are negatively associated with a healthy sense of self as represented by low self-efficacy, self-esteem and core self-evaluations, and a lack of a proactive orientation towards their career (Chrisman *et al.*, 1995; McDowell *et al.*, 2015; Neureiter and Traut-Mattausch, 2017; Tao and Gloria, 2019; Vergauwe *et al.*, 2015). Impostors also have higher standards of success for themselves and demonstrate greater self-handicapping (Cowman and Ferrari, 2002); all of which are associated with lower perceptions of competence in oneself (Leary and Baumeister, 2000). With respect to self-attributions, evidence indicates that those who score higher on impostor fears generally demonstrate stronger negative reactions to failure, attribute success to external causes and have less of a sense of personal agency (Chrisman *et al.*, 1995; Clance, 1985; Clance and Imes, 1978; Thompson *et al.*, 1998).

In sum, impostor fears are associated with stable achievement related self-perceptions and attributional patterns that are consistent with antecedents to a helpless response pattern. Clance and Imes suggest that impostor fears stem from fragile self-concepts (Nicholls, 1984; Dweck, 1999). Because impostors tend to doubt their ability, we expect self-efficacy to negatively predict impostor fears (e.g. McDowell *et al.*, 2015). We also expect achievement-related traits, in which success is attributed to external causes and not to internal causes, to predict such fears.

*H2.* Higher self-efficacy will negatively predict impostor fears.

*H3.* External locus of control will positively predict impostor fears.

*H4.* Attributions of success to chance will positively predict impostor fears.

*H5.* Internal locus of control will negatively predict impostor fears.

## Experiences of difficulty as context
While a childhood aetiology for the impostor syndrome is documented in past research from counselling settings (e.g. Clance, 1985), we wanted to focus on more immediate contextual causes for impostor fears. In an achievement situation, a helpless response emerges particularly when individuals confront difficulty, where they may question their competence and ability to complete job tasks (Blackwell *et al.*, 2007; Dweck, 1999; see also Pedler, 2011). Takase *et al.* (2012) found that nurses reporting a greater perceived mismatch between the competence they possess and the demands of their jobs are more likely to leave their jobs (see also Chatman, 1991). A study using grounded theory to understand respondent perceptions of misfit indicates that misfit is associated with a host of outcomes including negative psychological states such as diminished motivation, heightened stress and depression, and a lack of a sense of belongingness (Williamson, 2013). These responses reflect the ordeal that a sense of misfit can cause employees. Thus, those who perceive misfit are likely to perceive difficulty, which can elicit a sense of being incompetent when the misfit is construed as specific to competencies. Because impostors are particularly focused on incompetence, we conceptualised misfit in terms of perceptions of fit between their competence and job role requirements.

Similarly, in work contexts, transitions from one work setting to another can be challenging and pose difficulties to employees (e.g. Craddock *et al.*, 2011). Much of the research on organisational socialisation, which focuses on newcomer socialisation, seems concerned with the relationship between the individual and the work organisation and the

process through which newcomers fulfil their belongingness needs – whether through reducing role uncertainties, learning about organisational norms or developing new organisational identities (e.g. Ellis *et al.*, 2015; Takase *et al.*, 2012). Missing in this literature is the fraught nature of a newcomer's experience as they navigate difficulty ranging from social isolation, role-related stressor and performance anxieties, which is clearly evident in Nelson (1987). Thus, the emotive nature of work-related transitions, as newcomers find themselves aliens in their new workplaces, is inadequately captured in the literature on workplace socialisation (Nelson, 1987). Impostor fears provide a means through which to conceptualise the difficulties associated with these experiences of alienness. We used organisational tenure and career stage to capture the experience of being new and propose that both difficulties associated with being new to the organisation and experiencing misfit are likely to elicit a helpless response, which we conceptualised as impostor fears. Although both tenure and career stage are associated with time, they have different foci, with tenure specific to an organization and career stage specific to an individual. Early career stage and low tenure may both elicit impostor concerns because they are both tied to questions regarding whether an individual is truly a legitimate member of the organisation, but we include both as they represent different forms of difficulty.

In sum, impostor fears are characterised by a sense of fraudulence which can be a function of individuals' work encounters. We focused on experiences of difficulty, which we conceptualised in terms of perceived lack of job-fit, organisational tenure and career stage. Thus, it is hypothesised.

*H6.* Person-Job fit will negatively predict impostor fears.

*H7.* Career stage will negatively predict impostor fears.

*H8.* Organisational tenure will negatively predict impostor fears.

Our conceptual model, therefore, examines both contextual and stable bases. Whereas hypotheses 1–5 serve to examine gender and achievement-related trait predictors of impostor fears in the Sri Lankan context, hypotheses 6–8 address work-related contextual factors.

## Methods

### Sri Lankan context and study overview

Sri Lanka is a multi-ethnic and multi-religious country but predominantly Sinhala and Buddhist with a population of about 21 million. Sri Lankan society and culture have been influenced by the Indian civilisation and the colonisation of various European countries (Chandrakumara, 2007; Nanayakkara, 1992) and English is used regularly in business interactions. In 2020, the labour force participation of women was 32% compared to men 71.9% (Department of Census and Statistics, 2021). Women comprise 27.2% of managers, senior officials and legislators, 62.4% of professionals, 51.9% of clerks and clerical support workers and 35.6% of technicians and associate professionals (Department of Census and Statistics, 2020). However, discrimination, "glass ceiling" and sexual harassment of women prevail (Wickramasinghe and Jayatilaka, 2006).

We conducted two studies using self-administered questionnaires and interviews. Questionnaires were administered and interviews were conducted in English. In both studies, fit, organisational tenure and career stage were examined, but each study assessed different achievement-related traits due to the limited time available for participants to respond to the questionnaire. In Study 1, three months after administering the questionnaire, we interviewed a sub-set of the surveyed participants. Study 1 was designed to compare levels of impostor fears among women and men, to examine the extent to which organisational tenure, career stage, perceptions of misfit to one's job role and generalised self-efficacy predict impostor

fears. Next through the interviews, we further explored participants' impostor fears to better understand the survey findings. In Study 2, conducted a year later, we replaced generalised self-efficacy with locus of control as a predictor of impostor fears (see Table 1).

In both studies, questionnaires were pre-tested on ten individuals who were representative of the population. Based on feedback, items were modified to address the concerns that emerged. Next, once the relevant approvals were received, we administered questionnaires in MBA classes at two Sri Lankan public universities. Both programmes were conducted in English, the language typically used in managerial settings. These two programmes of study are highly competitive in the field of management education and their students represent the highly successful individuals among whom Clance and Imes (1978) first identified the impostor phenomenon.

At each data collection session, we first introduced ourselves and the study, requested volunteers, and distributed and collected completed questionnaires. In both studies, only full-time employed students (i.e. not unemployed) were considered.

In Study 1, of the 339 questionnaires distributed, 270 useable questionnaires were returned (final response rate of 79.6%). In Study 1, we also asked for volunteers for subsequent interviews. From among the volunteers, we selected 12 respondents to equally represent men and women, and those who reported high and low impostor fears. Interviews were conducted using a semi-structured interview protocol. Interviews were recorded with permission and transcribed verbatim. On average, interviews lasted one hour.

In Study 2, we administered a similar but modified questionnaire to Study 1. Self-efficacy was removed and career locus of control was added. We also replaced the Study 1 person-job fit measure with another scale. We distributed and received all 331 questionnaires from Study 2. Because 51 were unfilled or incomplete, we were left with only 280 useable questionnaires (response rate of 84.6%). See Table 2 for correlations from both studies. Correlations between independent variables were low, ruling out concerns of multicollinearity ($r \leq 0.32$, see Tabachnick and Fidell, 2007).

*Sample description*
In both studies, the majority of the respondents were men (58.9% and 58.6% for Studies 1 and 2, respectively). Their mean age was 31.26 years in Study 1 and 31.69 for Study 2. As all the participants were MBA students, they either had Bachelor's degrees, professional qualifications or both. Of the participants, in Studies 1 and 2, respectively, 75.7% and 80% were employed in the private sector and 22.5% and 19.2% in the public sector. The respondents had, on average, been working at their current job for 27.08 months in Study 1 and 29.4 months in Study 2 and for their current organisation for 57.85 months in Study 1 and 56.95 months in Study 2. With regard to career stages (Smart, 1998), in Studies 1 and 2, respectively, 82.0% and 81.9% were early career, 14.5% and 11.8% were in exploration, and 3.1% and 6.3% were in mid-career stages. The mean impostor rating was 2.60 and 2.39 in

| Variables | Study 1 | Study 2 |
|---|---|---|
| Gender (H1) | X | X |
| Context: Person-job fit (H6) | X | X |
| Career stage (H7) | X | X |
| Organisational tenure (H8) | X | X |
| Achievement-related traits: Self-efficacy (H2) | X | |
| Locus of control – external (H3) | | X |
| Locus of control – chance (H4) | | X |
| Locus of control – internal (H5) | | X |

**Table 1.**
Variables measured according to study

| Scale | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|
| 1. Impostor fears | – | 0.08 | −0.41*** | −0.25*** | −0.19** | −0.14* | N/A | N/A | N/A |
| 2. Gender | 0.02 | – | −0.00 | −0.15* | 0.05 | −0.12* | N/A | N/A | N/A |
| 3. Self-efficacy | N/A | N/A | – | 0.33*** | 0.20*** | 0.00 | N/A | N/A | N/A |
| 4. Person-Job fit | −0.19*** | −0.13* | N/A | – | 0.15* | 0.01 | N/A | N/A | N/A |
| 5. Career stage^ | −0.16** | −0.06 | N/A | 0.19** | – | 0.07 | N/A | N/A | N/A |
| 6. Organizational tenure (Months) | −0.14* | −0.05 | N/A | 0.13* | 0.14* | – | N/A | N/A | N/A |
| Locus of control 7. External | 0.24*** | −0.07 | N/A | −0.05 | 0.03 | −0.04 | – | N/A | N/A |
| 8. Internal | −0.12* | 0.02 | N/A | 0.29*** | 0.09 | −0.01 | 0.14* | – | N/A |
| 9. Chance | 0.28*** | 0.01 | N/A | −0.12* | −0.00 | 0.04 | 0.26*** | 0.02 | – |

**Note(s):** $N = 270$ (Study 1), 280 (Study 2) $^*p \leq 0.05$, $^{**}p \leq 0.01$, $^{***}p \leq 0.001$, N/A = Not applicable to the study. Coefficients above the diagonal represent Study 1 and coefficients below the diagonal represent Study 2. ^Exploration = −1, Other = 1

**Table 2.** Correlations among study variables

Study 1 and Study 2, respectively. See Table 3 for descriptive statistics for the 12 participants selected for interviews. In order to ensure privacy and confidentiality we assigned pseudonyms to interviewees.

| Name (Pseudonyms) | Age | Impostor fears | Career stage | Organisational tenure (months) | Job-fit |
|---|---|---|---|---|---|
| *Women: high impostors* | | | | | |
| Sagarika | 27 | 4.30 | 1 | 54 | 4 |
| Nuwani | 30 | 3.35 | 1 | 31 | 4 |
| Nayani | 34 | 2.95 | 2 | 99 | 3.5 |
| *Men: High impostors* | | | | | |
| Satheesh | 30 | 3.50 | 2 | 44 | 4 |
| Karthik | 25 | 4.37 | 1 | 8 | 4 |
| Madawa | 27 | 3.45 | 2 | 29 | 4 |
| *Women: Low impostors* | | | | | |
| Heshani | 29 | 2.05 | 2 | 84 | 4.5 |
| Malithi | 31 | 2.05 | 2 | 48 | – |
| Maneesha | 35 | 1.85 | 3 | 182 | 5 |
| *Men: Low impostors* | | | | | |
| Malith | 35 | 2.29 | 2 | 138 | 4.5 |
| Saleem | 30 | 2.15 | 2 | 3 | 5 |
| Malaka | 26 | 2.10 | 1 | 30 | 4 |

**Table 3.** Interviewees' description

*Measures used in the questionnaires*

*Impostor fears:* In Studies 1 and 2, impostor fears were measured using the Clance Impostor Phenomenon Scale (CIPS, Clance, 1985), after obtaining permission to do so. Based on feedback from pre-testing, we revised 16 of the 20 items taking care that the meaning of the items were not changed, but that the language was more digestible to local readers. For example, the item "I avoid evaluations if possible and have a dread of others evaluating me" was rephrased as "I have fear of others evaluating me". Items were measured on a response scale ranging from 1 ("not at all true") to 5 ("very true"). Because we wanted to capture participants' experiences specific to their present job and were interested in work specific

attributions, rather than global attributions, we instructed them to respond to the measure considering "yourself in your job".

Literature proposes models for the CIPS ranging from a single factor to a three-factor model (see Simon and Choi, 2018). In Study 1, exploratory factor analyses revealed that the data did not quite conform to the expected single factor solution, although the screen plot revealed a substantial dip in variance explained after the first factor, suggesting an item structure similar to the model proposed by Simon and Choi (2018), who used confirmatory factor analysis to determine that a single factor with correlated residuals was most appropriate. As a result, we decided to eliminate items with weak loads to create a better fitting scale that would provide a single factor solution. Previous research has also used shortened versions of the scale (e.g. Brauer and Wolf, 2016). As a result, the scale was reduced to 12 items. For Study 2, a similar process was used to obtain a sixteen-item scale. Factor loadings revealed consistency in the item loadings in Studies 1 and 2, and it was noted that all four items eliminated in scale construction in Study 2 were also eliminated from the scale in Study 1.

The items were then averaged to form a single scale score, which was used in all subsequent analyses. With respect to reliability of the 12-item Study 1 scale and the 16-item Study 2 scale, alpha was consistently 0.88.

*Self-efficacy:* The New General Self-Efficacy Scale (Chen *et al.*, 2001) consisting of eight items was only included in Study 1. An example item is "When facing difficult tasks in my job, I am certain that I will accomplish them". Items were measured on a response scale ranging from 1 ("strongly disagree") to 5 ("strongly agree") and the scores of the items were averaged to form a single scale score. Reliability was 0.82.

*Person-job fit:* In Study 1, we used Cable and Judge's (1996) three-item scale to measure person-job fit (e.g. "Do you believe your skills and abilities 'match' those required by the job?"). Items were measured on a response scale ranging from 1 ("not at all") to 5 ("completely"). This scale had very poor reliability in Study 1. The second item, which was negatively worded, was causing the alpha to dip and as a result was removed to create a two-item scale. The two items used in our final scale were significantly correlated, $r = 0.30$, $p < 0.001$.

Because of the difficulties we faced in Study 1 with the Cable and Judge measure, in Study 2, we used Saks and Ashforth's (1997) four-item scale to measure person-job fit. An example item is "To what extent do your knowledge, skills, and abilities match the requirements of your job?". Items were measured on a response scale ranging from 1 ("to a very small extent") to 5 ("To a very large extent") and the scores of the items were averaged to form a single scale score. In Study 2, the reliability was 0.86.

*Organisational tenure:* In both studies, organisational tenure was measured with the question: "How long have you been working for your current organisation?" Organisational tenure was measured in years and months and later converted to months.

*Career stage:* Career stages were measured in both studies. We used Smart's (1998) career stages to measure each of the four stages: exploration, establishment/early, maintenance/mid and disengagement/late by converting each stage definition into a question.

*Career locus of control:* In Study 2, we used Guan *et al.*'s (2013) 15-item measure of career locus of control. There are three dimensions to this variable: internal locus of control (6 items), external locus of control (6 items) and chance (3 items). After pre-testing, three of the items were slightly modified to make them unambiguous. Example items for internal locus of control, external locus of control and chance are, "My career success mainly depends on my professional knowledge and skills", "My career success mainly depends on whether I meet people who can help me" and "My career success mainly depends on my luck", respectively. Items were measured on a response scale ranging from 1 ("strongly disagree") to 7 ("strongly agree") and the scores for each dimension were averaged to form the three composite scores. Exploratory factor analysis revealed factor loadings consistent with the three dimensions

proposed. Cronbach's alphas were 0.78, 0.74 and 0.80, for internal, external and chance, respectively.

*Gender and Control variables:* In both studies gender was measured as male (= 0) and female (= 1). In both studies, sectors of employment (public, private and non-governmental), employment-type and university were included as control variables to capture important aspects of job environments that may impact impostor fears.

### Analytical strategy

In both studies, first, data were subjected to descriptive analyses and then hierarchical linear regression analyses in which impostor fears were regressed first on the control variables: sector, university and employment type, all of which were dummy coded (see Table 4 for details). In Study 1, self-efficacy was entered in step 2. In step 3, organisational tenure, career stage and job-fit were entered. In Study 2, the three locus of control variables were entered in step 2, and job-fit, career stage and organisational tenure were entered in step 3. We used hierarchical regression in order to identify the variance explained by each set of variables (context and achievement-related traits). Both regression models were significant (see Table 4).

The interviews data were analysed using a thematic analysis method as described by Braun and Clarke (2006) as it allows us to generate themes to highlight similarities, differences and unanticipated insights. Initially, themes were identified within each interview question and then recurrent patterns across participants were pooled.

## Results

### Control variables and the testing of hypotheses regarding gender and achievement-related traits

In Study 1 only, three of the control variables (sector, university and employment-type) were significant. As Table 4 demonstrates, gender did not substantially affect impostor fears in both studies. Thus, H1 was not supported.

| Variable | Study 1[+] $\beta$ | $t$ | Study 2[++] $\beta$ | $t$ |
|---|---|---|---|---|
| Constant | | 10.25[***] | | 7.46[***] |
| *Controls* | | | | |
| Sector ($-1$ = private, 1 = other) | 0.14 | 2.41[*] | −0.03 | −0.58 |
| University | 0.12 | 1.97[*] | −0.7 | −1.17 |
| Employment-type (1 = Self-employed, 0 = Other) | 0.12 | 2.11[*] | −0.01 | −0.10 |
| Employment-type – missing (0 = missing, 1 = not missing)[+] | 0.03 | 0.60 | −0.06 | −0.54 |
| *Independent variables* | | | | |
| Gender (1 = Female, 0 = Male) | 0.05 | 0.88 | 0.01 | 0.25 |
| Self-efficacy | −0.37 | −6.21[***] | – | – |
| Person-job fit | −0.12 | −1.95[†] | −0.09 | −1.40 |
| Career stage^ | −0.10 | −1.80[†] | −0.13 | −2.25[*] |
| Organizational tenure (Months) | −0.10 | −1.72[†] | −0.11 | −1.98[*] |
| *Locus of control* | | | | |
| External | – | – | 0.21 | 3.57[***] |
| Chance | – | – | 0.23 | 4.07[***] |
| Internal | – | – | −0.15 | −2.52[*] |

**Note(s):** [+]$R^2 = 0.24, F(9,255) = 8.85.$ [++]$R^2 = 0.20, F(11,261) = 6.09.$ [†]$p < 0.10,$ [*]$p \leq 0.05,$ [**]$p < 0.01,$ [***]$p < 0.001.$ [+]We added a dummy code for missing data as we did not want to lose cases with missing values. ^Exploration = −1, Other = 1

**Table 4.** Regression coefficients for model predicting impostor fears

With respect to achievement-related traits, the results were consistent with our hypotheses. In Study 1, self-efficacy and impostor fears were negatively related in terms of both first-order correlations ($r = -0.41$, $p < 0.001$) and in the regression model tested ($\beta = -0.37$, $p < 0.001$, see Tables 2 and 4). Thus, the results are supportive of H2 In Study 2, impostor fears correlated negatively with internal locus of control ($r = -0.12$, $p < 0.05$) and positively with external locus of control ($r = 0.24$, $p < 0.001$) and chance ($r = 0.28$, $p < 0.001$). Similarly, regression analyses revealed that higher external attributions ($\beta = 0.21$, $p < 0.001$), and attributions to chance ($\beta = 0.23$, $p < 0.001$), and lower internal attributions ($\beta = -0.15$, $p < 0.05$) were associated with higher impostor fears. Thus, the results are consistent with H3, H4 and H5.

### Hypotheses tested on contextual factors

In both studies, organisational tenure (Study 1: $r = -0.14$, $p < 0.05$; Study 2: $r = -0.14$, $p < 0.05$), career stage (Study 1: $r = -19$, $p < 0.01$; Study 2: $r = -0.16$, $p < 0.01$) and job-fit (Study 1: $r = -0.25$, $p < 0.001$; Study 2: $r = -0.19$, $p = 0.001$) were negatively correlated to impostor fears. In the two regression models, job-fit was significant marginally only for Study 1 ($\beta = -0.12$, $p < 0.10$). These results are partially supportive of H6 Career stage consistently predicted impostor fears in both studies, although in Study 1, the effect was marginal ($\beta = -0.10$, $p < 0.10$; $\beta = -0.13$, $p = 0.05$, respectively). Thus, there was some support for H7. Organisational tenure consistently predicted impostor fears, although again the effect for Study 1 was marginal ($\beta = -0.10$, $p < 0.10$; $\beta = -0.11$, $p < 0.05$, respectively for Studies 1 and 2), thus somewhat supporting H8.

Although men and women do not differ in the extent to which they experience impostor fears (Study 1: $F = 1.56$, $p > 0.05$; Study 2: $F = 0.10$, $p > 0.05$), for exploratory purposes, we examined if they differed in perceptions of job-fit. We found significant differences (Study 1: $F = 6.33$, $p < 0.01$; Study 2: $F = 4.82$, $p < 0.01$), with men reporting higher job-fit perceptions (Study 1: $M = 4.13$, SD = 0.49; Study 2: $M = 3.56$, SD = 0.75), relative to women (Study 1: $M = 3.96$, SD = 0.62; Study 2: $M = 3.35$, SD = 0.85).

### Interview findings from study 1

To better understand impostor fears, particularly with respect to experiences of contextual factors and achievement-related traits, we followed up the survey with interviews of a subset of Study 1 participants. Our findings across the interviews and survey were consistent. The six interviewees classified as high on impostor fears in the survey phase, with two exceptions, also described continuing experiences of impostor fears during the interview. Similarly, all classified as low impostors did not describe experiencing impostor fears in interviews either.

*Gender and impostor fears.* Similar to our survey results, and inconsistent with the framing of impostor fears as specific to women (Clance and Imes, 1978), both men and women voiced impostor fears during the interviews. These interviewees attributed achievements to external reasons such as "luck" or "help from others" rather than their own accomplishments. For example, Sagarika (27 years, female) said,

I feel lucky to be there [in the research company]. . ..I do not think I'm smart enough for the company.

Nuwani (30 years, female) put it this way,

There's doubt that comes to my mind,. . .can I achieve this?

Another interviewee, Madawa (27 years, male), said

So, it was my luck that after 6 months I got [a] probationary lecturer position.

and Karthik (25 years, male) stated,

Yes, I would not have got this job if I had not got the recommendation . . . so yes, definitely luck.

*Context and impostor fears.* With respect to contextual factors, Nuwani attributed her doubts to being new to the organisation. "*So, there is a self-doubt that exists because I was new to this* [sales meeting] *and my background is completely different",* highlighting the role of tenure in impostor fears. Two other interviewees who had indicated high impostor fears through their survey responses, described how these fears diminished with time.

In the beginning . . . I was . . . thinking whether I'll be able to do these tasks properly . . . . I was scared. I will be just sitting. (Karthik)

I think when you start a new job there will be difficulties. This is natural. You have to wait a bit to become used to it without reacting to it or trying to change it. After a while it will be ok. (Madawa)

Explaining further, Madawa said that in the beginning, senior lecturers would push him around. They would ask him to conduct their lectures with little notice or time for preparation. He was not in a position to refuse. Such an environment frustrated him. However, the environment changed after two years on the job (career stage).

I was coming from India [where I had studied] I had this really, . . . scared, when you come to the construction industry you have labourers, you have to shout at them, you have the contractors, always trying to . . . you know . . . always trying to manipulate and . . . it's going to be in hot water . . . so I was scared, but after coming here I just learned the trade. (Karthik)

With regard to job-fit, Nuwani said,

When I came to this job, that was the first time I started working with sales, and I realised that sales was difficult. It's not easy, it's not something that I'm comfortable with.

Karthik put it this way,

First, I did not know what I was supposed to do [in my job role]. I did not know what kind of question will come to me [at work] . . .. If I had a good orientation or training, I would not have felt like that [impostor].

Nayani (34 years, female), a high impostor, even after 8 years on the job described the effects on non-conducive work environments. Her description addresses job-fit from a broader perspective:

I think this branch is more challenging because [the] superior [Chairperson of the organisation] . . . after one year, [has] changed . . .. It's very sensitive and political . . .. I feel now it's more challenging, so sometimes I want to change the office . . . I think it's enough.

These accounts indicate that organisational tenure, career stage and job-fit are important in eliciting impostor fears.

*Achievement-related traits and impostor fears.* Not all accounts of impostor fears were tied to work contexts. Nuwani, despite a conducive environment and a relatively long tenure in the organisation, continues to feel self-doubt, reflecting stable trait.

From [the] organisation's side they are forever praising and saying yes, you can do it, you have it, . . . but for me personally I'm a person who has had some self-doubt, not only in this field.

Other accounts also do not explicitly refer to context:

If it is Head of Marketing or AGM [position I was promoted to] I would say its luck but . . . I feel that I'm not that, I'm not the luckiest person when I compare myself with some of my colleagues [I] deserve it [my position] definitely. (Malith, 35 years, male)

Similarly, Maneesha (35 years, female) said that she never considered her achievements were because of luck. She seems to consider herself competent and deserving of her position. Another female interviewee, Heshani (29 years, female), said

I very rarely get luck … Seriously! … . [I] have to work hard to achieve anything.

Through these interviews we were able to see that individuals with high self-efficacy and internal locus of control did not report impostor fears. This substantiates our findings from the survey component of the studies.

Nuwani's and others' accounts indicate that context alone do not explain impostor fears. Particularly Nuwani's description is consistent with early descriptions of impostor fears as developing in early childhood. It is also consistent with evidence that achievement related traits predict impostor fears as demonstrated through the regression analyses reported earlier.

In sum, both men and women reported impostor fears. Those who reported impostor fears described it as "feeling of self-doubt" "feeling of lacking" as well as achievement as a result of luck. Impostor fears were associated with external attributions to success consistent with the literature on the impostor syndrome. Further, both questionnaire and interview findings indicate that impostor fears are associated with non-conducive work environments, particularly ones that are new and result in experiences of low job-fit.

## Discussion

This study demonstrates that in Sri Lanka, as found in other contexts (e.g. Clance and Imes, 1978), working people experience impostor fears and that these fears are experienced by both men and women. We found, consistent with past research, that impostor fears are associated with achievement-related traits, specifically self-efficacy and locus on control. Our primary contribution, however, is with respect to the contextual underpinning of impostor fears. We found that impostor fears tended to be associated with a sense of misfit with the organisation, specifically in terms of their perception of job-fit, career stage and in terms of organisational tenure.

In both studies, gender did not influence impostor fears, which is contrary to some literature (e.g. Badawy et al., 2018; Gibson-Beverly and Schwartz, 2008; Kumar and Jagacinski, 2006), but similar to some others (e.g. Castro et al., 2004; Cowman and Ferrari, 2002). Across the literature, men are found to also be subjected to impostor emotions and concerns even though, Clance and Imes (1978) initially framed the impostor phenomenon as specifically experienced by women. We found, however, that women do experience greater misfit, although this did not translate into differences in impostor fears.

Similar to other studies (e.g. McDowell et al., 2015), we found that self-efficacy predicts impostor fears. In addition, locus of control also predicts impostor fears. This supports Clance and Imes (1978) conceptualisation that tendencies to attribute success to external causes and to doubt one's ability (Clance and O'Toole, 1987; Thompson et al., 1998) are associated with such fears. These findings support the influence of stable internal characteristics in causing impostor fears to occur, as discussed in the original conceptualisations of the impostor syndrome (e.g. Clance and Imes, 1978; Clance and O'Toole, 1987). Relative to the context-related characteristics we studied, these effects were large and may indicate that trait effects are of substantial importance in eliciting impostor fears.

Our studies suggest that environmental conditions also contribute to impostor fears. Specifically, we found that organisational tenure and career stage are associated with impostor fears, illustrating that these fears have a dynamic quality, although when regressed, these effects were only marginally significant in Study 1. The interviews revealed that when new to organisations, individuals experience impostor fears and after few months, as they became comfortable with the job and work setting, these fears decline. Their explanations, such as that of Karthik who returned after his studies, fresh and nervous, illustrate the role of career stage.

The findings for person-job fit were more complex. While correlations demonstrated a pattern of findings consistent without predictions, regression analyses revealed only a marginally significant effect for Study 1. The interviews, however, clearly indicate that non-conducive environments and being new can elicit impostor fears. Together these findings

highlight the contextual bases of impostor fears and are consistent with Bernard *et al.* (2017) and similar to studies in which perceived organisational support (McDowell *et al.*, 2015) and social support (Vergauwe *et al.*, 2015) were found to mitigate impostor fears.

## Theoretical implication

Impostor fears represent a form of helplessness that individuals experience in work settings. Even though impostor fears, from when they were first introduced (Clance and Imes, 1978), were closely tied to achievement, they have not been viewed as representing a maladaptive response pattern as described in achievement motivation perspectives. These results are consistent with achievement goal theory, which suggests that fragile self-conceptions are associated with dysfunctional orientations to achievement (e.g. Dweck, 1999; Yeager *et al.*, 2019). Misfit, early career stage, and a low tenure indicate contextual effects that cause individuals' difficulties that, in turn, may give rise to such fears.

Although the impostor syndrome is discussed as a fairly stable construct, impostor fears have a dynamic quality as well. In our studies tenure, career stage and fit, which were conceptualised to reflect environments that may be conducive to impostor fears, were found to affect these fears. Future research should further elaborate on these findings by asking questions such as whether impostor fears vary as a function of the task or the task environment.

Our findings also capture the emotive nature of transitions to new work environments and provide a conception of this process that is not overly cognitive in nature or focused simply on newcomer assimilation from the point of view of organisations (e.g. Ellis *et al.*, 2015; Takase *et al.*, 2012). This perspective is rarely articulated in the newcomer assimilation literature (Nelson, 1987), but is consistent with a broader trend of research on affective experiences in organisational settings (e.g. Ashkanasy and Dorris, 2017; Barsade *et al.*, 2003).

Broadly, this paper provides insights into both individual and work environment factors and their effect on impostor fears and thereby highlights the role of the situation in the experience of impostor fears and points to the usefulness of the theory on achievement motivation in understanding the phenomenon.

## Practical implications

Several implications can be derived from our findings. Firstly, our results indicate that both men and women experience impostor fears. The fact that impostor fears were first reported by women (Clance and Imes, 1978), who attended therapy sessions, may not mean that women have more of such fears than men, but that they may simply be more likely to attend such sessions and express such fears (see Cox, 2014). Awareness of how men experience impostor fears may help organisations address potential insecurities that men face and also provide healthier work environments for both men and women. The fact that these fears can be accentuated in non-conducive environments suggests that organisations can proactively address some of these fears.

Our findings also indicate the difficulties associated with being new. Past research has indicated the value of newcomer orientation programmes (see Bauer *et al.*, 1998). Consistent with this research, organisations could benefit from strengthening induction programmes (McDowell *et al.*, 2015; Vergauwe *et al.*, 2015) in order to ensure a seamless transition into them. New hires may be warned of these feelings and the possibly temporary nature of such perceptions.

## Limitations, strengths and future research

Each study is cross-sectional in nature with single source data, which could result in common method bias. However, we mitigated the possible effects by supplementing survey methodology with follow-up interviews. These methods allowed us to triangulate findings across studies. As tenure was an important factor, longitudinal study of impostor fears is

recommended, particularly to demonstrate causality and to capture the dynamic nature of impostor fears.

The sample consisted of a fairly large proportion of early career participants (above 80%), which suggests that the findings may not generalize to a broader population. We chose this population, however, because they represent high achievers. In Sri Lanka, less than 20 per cent of the population completes some form of post-secondary education. Of these, only a fraction, continue to complete postgraduate education. Both institutions involved in the present study, are competitive, well established and recognized. We chose such a population, because it reflected the highly successful individuals and whom Clance and Imes (1978) first described as having impostor fears. We made many modifications to the wording of the impostor scale because piloting indicated that items were difficult for participants to read. The purpose was to retain the meaning of the items but to word items to fit English as it is used in Sri Lanka. The construct validity of the final scale was supported by the follow-up interviews, which demonstrated that those who reported high impostor fears also reported similar experiences in their interviews.

## Conclusions

By drawing on the literature on impostor fears, locus of control, self-efficacy and job-fit, the hypotheses tested in this research extends our understanding of the antecedents of impostor fears. Our results highlight the importance of self-efficacy, organisational tenure, internal locus of control, career stage and job-fit in impostor fears among both men and women. Further, results show that external locus of control and chance may increase impostor fears in individuals. The framing of impostor fears as a helpless response in an achievement setting provides a theoretical lens through which impostor fears could be understood. Finally, the results of our study extend impostor research to a different cultural context from those of the Western, a non-Western developing country where both men and women also seem to experience impostor fears.

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