Does Mindfulness Strengthen the Relationship Between Belonging and Goal Progress?

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Abstract

Mindfulness is an increasingly popular topic that is now being talked about more than ever.

Its benefits such as improved concentration, self-regulation and emotional intelligence,

amongst others are abundant according to a variety of research. Benefits such as these are not

excluding of the workplace and its employees. Such benefits can also be achieved among

employees in the workplace. This study hypothesises that mindfulness will predict positively

for goal progress as well as enhance the relationship between belonging and goal progress in

working environments. A sample of 87 people from around Europe and the USA who work

between 20 and 40 hours a week answered a series of questionnaires that consisted of one

baseline questionnaire and two daily questionnaires that lasted for ten days consecutively. A

moderation analysis using aggregated data found that trait mindfulness did not enhance the

relationship between belonging and goal progress nor did it predict positively for goal

progress alone. However, belonging did predict positively for goal progress. Therefore, more

emphasis should be placed on the promotion of belonging in the workplace to maximise goal

progress amongst colleagues.

Keywords: mindfulness, belonging and goal progress

2

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Does Mindfulness Strengthen the Relationship Between Belonging and Goal Progress?

Mindfulness has become a topic that can be associated with a variety of benefits such as well-being, performance and health in organisations (Choi et al., 2022). Nowadays, it is much more discussed in the media, and the general public has become more aware of the benefits of mindful behaviour. Glomb et al. (2011) defined mindfulness as "a state of consciousness characterized by receptive attention to and awareness of present events and experiences, without evaluation, judgement, and cognitive filters" (p. 119). This means that people are more aware of themselves and their surroundings at any given moment, which can be of benefit to people in several different ways, which we will illustrate further. This study will focus on how mindfulness impacts the relationship between belonging and goal progress in the workplace. Building on this, multiple studies demonstrate how mindfulness is related to both belonging and mindfulness. For example, individuals with higher levels of mindfulness have better levels of emotion regulation and their attachment style has an impact on their level of emotional intelligence and overall belonging (Goodall et al., 2012). From this, we can speculate that individuals high in mindfulness, may have better relationships with others, which we will go on to investigate in a workplace environment. Mindfulness has also been seen to buffer the effects of workaholism, such as burnout, in employees which would ultimately help individuals' performance within the workplace (Daniel et al., 2022). Mindfulness has beneficial outcomes as can be seen from the studies mentioned above which employers could then avail of by encouraging mindfulness training and techniques to boost the overall success and vitality of the organisation.

As aforementioned, belonging and mindfulness can be linked. In this study, we will investigate whether people that feel as if they belong become more mindful of these relationships in their environment. An important discovery of social psychology was that individuals flourish through positive connections with one another (Baumeister & Leary,

1995). Belonging can be described as how a person experiences their self-involvement in an environment, and thus feels integral to this particular environment (Hagerty et al., 1992). Positive experiences in the workplace are no exception to this. For example, in the workplace, belonging is a significant factor in personal well-being that brings about satisfaction and agreement (Chan, 2016). Gover et al. (2021) argue that belonging can also bring about better and more accurate performance in a high-school setting; 'Belonging certainty also predicted on-track progress and on-track graduation'. When one feels valued and appreciated in the workplace a sense of commitment is developed (Baumeister & Leary, 1995). This study will build on the impact of belonging in the workplace. A cooperative relationship between employers and employees that promotes belonging within the workplace should lead to an increase in goal progress which this study will further investigate within a workplace setting. Furthermore, to add in support of this argument, if a supervisor acknowledges and openly appreciates an employee's efforts in the workplace, the need for belonging in the employee is satisfied (Baumeister & Leary 1995). This indicates that a sense of belonging between employers and employees is extremely effective and can bring about many positive effects in the workplace. This study will investigate the idea that individuals with a high sense of belonging and mindfulness, are more likely to be more mindful of these relationships and their benefits. People who have a high sense of belonging with one another are generally more mindful of these relationships and act in self-regulatory ways towards one another (Galovan et al., 2022). Belonging bolsters self-regulation in employees, thus allowing for increased awareness of relationships with one another, which can combat depletion in the workplace (Puranik et al., 2021). From this, we can speculate that belonging will allow individuals to be more mindful of their relationships with one another and as a result act in self-regulatory ways which help them to be more successful in their goal attainment.

With this research, more insight will be added to the relationship between belonging and goal progress in the workplace. This research aims to benefit organisations as it can show whether an increased sense of belonging should be promoted in the workplace so that employees are more successful in their goal pursuit. In addition to this, the potential added value of higher levels of trait mindfulness to this relationship will be investigated. This can be useful to organisations that are interested in creating a better environment for their employees and can thus employ more techniques in the workplace, such as regular mindfulness training and promotion.

Belonging Predicting Goal Progress

Goals can give a sense of value to tasks that may have lacked importance before. When goals are attained, they can make an individual feel more accomplished and increase their understanding of effectiveness which can result in positive psychological effects (Latham and Locke, 2006). It has been demonstrated by multiple studies that autonomous motivation achieves the best outcome of goal pursuit, progress and attainment (Koestner et al., 2008). Forcing an employee to undertake specific goals can make them develop a sense of alienation and resentment, which will lead to negative outcomes for the organisation as a whole (Twiname et al., 2006).

As aforementioned, a sense of emotional attachment to an employee's workplace can lead to a sense of belonging and acceptance of group members (Baumeister & Leary, 1995). Embeddedness within an organisation is also linked to an employee's sense of belonging and social relationships which in turn may have an impact on goal progress. Embeddedness can be described as how committed one is to their job and can be established through community building, developing a sense of belonging among employees and determining ties between individuals (Lee et al., 2004; William Lee et al., 2014). Research by Ng and Feldman (2009),

demonstrates that a higher sense of belonging can lead to an enhancement of goal progress. If there is a high level of belonging within the organisation, a high-performing individual is likely to be more committed to their job and the organisation as a whole, and they experience this in many ways (Ng & Feldman, 2009). If they feel that they fit within the organisation (the extent to which their skills correspond to the organisation's requirements), they have sufficient links (ties within the organisation, belonging) and what they would sacrifice if they left (pensions or insurance benefits for example) (Ng & Feldman, 2009). If these factors are high, people are more likely to stay within their jobs and their relationships with their employers are more cemented (Ng & Feldman, 2009). From this research, it can be speculated that an employee's overall sense of belonging, can make them feel more committed to the organisation. This suggests that belonging will encourage a high-performing individual to continue working with their organisation, thus contributing more to the attainment of their own goals and the overall success of the organisation.

More research has been done on the relationship between belonging and goal progress, however, most of it has been conducted within a school setting. A sense of belonging has been seen to have a positive impact on goal pursuit in schools. Belonging in school settings has both long and short-term positive outcomes on a student's individual psychological state and academic results (Allen et al., 2022). Concerning achieving goals in the workplace, it has been shown that performance goals can have detrimental effects on employees if they view these as competitive rather than cooperative (Latham & Locke 2006). It is speculated that cooperation occurs between people when they view their respective goals to be interrelated. From these findings, we can hypothesise that a reduction of competitiveness in the workplace can occur by making a sense of belonging more salient among employees, where they ultimately have to work together to enhance their goal progress through interdependent goal-setting (Latham & Locke 2006). To enrich previous

research, this study will conduct a more in-depth analysis of belonging and goal progress specifically.

H1: A higher sense of belonging predicts enhanced goal progress

Trait mindfulness Predicting an Enhancement of Goal Progress

Mindfulness has been theorised to promote a better self-concordant selection of goals, as individuals high in mindfulness are more likely to be aware and conscious of their 'gut feelings' (Sheldon, 2014). In terms of mindfulness and goal progress, dispositional mindfulness is a personality trait that can allow individuals to self-regulate more effectively (Smyth et al., 2020). It has been found that an individual's behaviour can be modified through self-regulation and autonomous motivation (Good et al., 2016). Thus, as well as being more self-concordant, individuals higher in mindfulness will also be able to selfregulate more effectively. According to Zimmerman (2000), individuals will set goals through self-regulation, which involves a process of thinking about the goal, controlling their process and finally evaluating their progress to adjust their strategy accordingly. Individuals higher in mindfulness are better able to set and monitor goals than those who are not, as they are more able to identify and select goals that are more self-congruent and important to themselves (Smyth et al., 2020), which thus are in line with their morals and values (Goyer et al., 2020). With increased mindfulness, also comes increased levels of self-awareness and attention to this (Brown & Ryan, 2003), which may also play a factor in the engaged selfconcordant selection of goals, which individuals are less likely to disengage with (Marion-Jetten et al., 2022). Finally, individuals higher in mindfulness are more likely to accept criticism (Beckman et al., 2012), which may have an impact on their goal progress. If employees are more willing to engage with others' feedback, this may make them more successful in attaining their goals, especially when these goals are inherently important to

them (Goyer et al., 2020). Therefore, we can reason that the more mindful an individual is, the more likely it is that they will set goals which they will achieve successfully.

As individuals, we encounter many stressful and negative experiences almost daily, and we all learn to cope with them differently (Lazarus & Folkman, 1984). In terms of the workplace, mindfulness can help buffer workplace performance from distressing events and scenarios (Good et al., 2016). This can be achieved as people higher in mindfulness have more cognitive capacities allowing them to become flexible in employing a variety of techniques that they can implement in turbulent situations (Good et al., 2016). An example of a technique an individual with high mindfulness could use in a distressing situation is called 'decentering'. Specifically, this can be described as "the ability to observe one's thoughts and feelings as temporary, objective events in the mind, as opposed to reflections of the self that are necessarily true." (Fresco et al., 2007, p. 234). Ultimately, this may mean that employees higher in mindfulness may be able to set and achieve goals more successfully, by employing techniques that work in conjunction with mindfulness, such as decentering, if they experience negative situations at work, thus not allowing distressing events to impact their overall goal progress and performance. A study by Eftekhari et al. (2017), found that decentering improved motivation toward goals in individuals prone to high-stress levels. This may mean that the employment of mindfulness techniques such as decentering will ultimately help people to be more productive in achieving their personal goals in the workplace.

In this study, it is expected that individuals with higher levels of mindfulness may be able to set and achieve goals more effectively due to higher levels of self-congruence, engagement with constructive criticism and the ability to deflect negative experiences that they may encounter in the workplace.

H2: Trait mindfulness predicts enhanced goal progress

Higher levels of trait mindfulness in individuals strengthen the relationship between their sense of belonging and goal progress

From the results of the aforementioned studies, we can speculate that mindfulness may have an impact on the relationship between belonging and goal progress. Belonging can have an impact on mindfulness, such that individuals who feel as if they belong, are more mindful of these relationships and are more capable of communicating and essentially being more empathetic and understanding of one another (Galovan et al., 2022). Mindfulness may also have an impact on goal progress as individuals with higher mindfulness can set more self-concordant goals (Smyth et al., 2020), be less likely to disengage with goals (Marion-Jetten et al., 2022) and be capable of deflecting negative experiences potentially encountered at work such that their performance is not jeopardised (Good et al., 2016). Thus, it can be speculated that mindfulness may strengthen the relationship between belonging and goal progress. Individuals who have an established and trusting relationship with one another and who are higher in mindfulness reinforce these relationships by acting in benevolent manners towards one another (Galovan et al., 2022). An example of these benevolent actions in the workplace may be supporting a colleague with a task, therefore contributing to their overall goal progress and sense of belonging. Thus, it may be speculated that in the workplace, employees higher in belonging will experience higher levels of mindfulness towards these relationships, ultimately leading to enhanced goal progress. We reason this as past research has found that harmonious work environments allow employees to set goals more mindfully and in conjunction with one another (Latham and Locke, 2006; Sheldon, 2014). This may mean that they will achieve their goals more efficiently, as they are mindful that they are reliant on one another and of their responsibility to maintain a harmonious working environment.

Previous research has shown us that belonging can bolster self-regulation in the workplace (Punarik et al., 2021). We also discussed that individuals higher in mindfulness are better at self-regulation compared to those who are not as mindful (Smyth et al., 2020). For individuals to be effective in their goal-setting and progress, they need to be able to self-regulate efficiently, in the sense that they can hold themselves accountable for the goals that they set and the process in which they go about achieving them (Zimmerman, 2000). Therefore, we can speculate that as both belonging and mindfulness increase self-regulation in individuals, this should help them not only in their goal-setting but also in their subsequent goal progress.

This study will build on more aspects of mindfulness such as the aforementioned studies, which may uncover certain techniques that can boost performance in the workplace, thus, leading to more insight for employers and employees alike.

H3: Higher levels of trait mindfulness in individuals strengthen the relationship between their sense of belonging and goal progress

Method

Participants

The participants were recruited through the social network of the researchers involved in this project. People were eligible to participate if they worked for a minimum of 20 hours per week. Interested participants received an email containing a link that led them to the baseline questionnaire. Additionally, posters equipped with a QR code linked to the study were hung around the city of Groningen. These participants were directly led to the study by scanning the QR code. After participants completed the baseline questionnaire, they were included in an email list and were sent the daily afternoon and evening questionnaires.

In total, 109 people answered the baseline survey. After the data was assessed, participants who did not answer sufficiently on the scales that concerned the variables in this research, 87 individuals remained. Of these, 71.26% identified as female and 28.74% as male. The age ranged from 20 to 62 years old (M = 32.59, SD = 12.31). Participants were from 13 different countries. Most participants were from The Netherlands, followed by Romania, Slovenia, Ireland and Germany. In regards to language skills, 17.24% of people indicated being native English speakers. Of the participants that did not indicate being native English speakers, 36.78% indicated being fluent in English. In terms of education, 58.6% of participants indicated a university degree as the highest achieved level of education. On average, participants worked 38.19 hours per week (SD = 8.96).

Procedure

This longitudinal study consisted of two parts: a one-time baseline questionnaire and a series of short daily afternoon and evening questionnaires. All of the questionnaires were in English. The Ethical Committee of Psychology at the University of Groningen approved this research before conducting the study.

To motivate participants to take part in the surveys, participants received individual feedback. Additionally, there was a possibility of winning a prize in an anonymous raffle to encourage participants to answer the questionnaires. The more frequently a participant answered the surveys, the more times their name was entered into the draw. At the beginning of the baseline questionnaire participants were asked to give informed consent. If participants didn't consent, the questionnaire then ended. In addition, participants received an information sheet. This contained information about the confidentiality of their data, the content of the research, the researchers, their rights, the risks, and the benefits. In the first week of the study, participants were asked to participate in the baseline questionnaire. The baseline questionnaire was designed to take around 15-20 minutes to complete. Asking participants

for their email addresses in the baseline question made it possible to send them the series of daily questionnaires.

Starting in the second week of the study, participants received short daily questionnaires for 10 work days for two weeks. The daily questionnaires entailed two short surveys, which took around 3-5 minutes to complete, per workday. For each of the daily questionnaires, the participants received a link via email, through which they could access the questionnaire. The daily questionnaires were sent out during the participants' lunch break, as well as after their workday ended.

Measures

Belonging

Belonging was measured in the afternoon questionnaire through five items by Puranik et al. (2021). Participants answered the items on a five-point Likert scale from 1 being *strongly disagree* to 5 being *strongly agree*. Participants had to rate each item based on their experience on that particular day from when they got to work until the lunch break/afternoon break. Sample items are: "I feel well-accepted by others at work" and "I feel like I really belong" ($\alpha = .93$).

Goal progress

To assess goal progress 3 items used by Rosen et al. (2019) were used. Participants were asked to evaluate their work on a five-point Likert scale, ranging from 1 being fully disagree to 5 being fully agree in the questionnaire they received after their work day. Sample items are 'I have made good progress on my work goals' and 'I had a productive day in relation to my work goals ($\alpha = .94$).

Trait mindfulness

Trait mindfulness was assessed in the baseline questionnaire using a scale developed by Hülsheger et al. (2021). This scale is frequently used to measure mindfulness in participants who did not undergo mindfulness training and have no proper meditation experience.

Participants were asked to indicate to what extent statements about work experiences applied to them in the past few weeks on a five-point Likert scale ranging from 1 being strongly disagree and 5 being strongly agree. Examples of items are: 'During work, I find it easy to stay focused on the task at hand' and 'At work, I do jobs or tasks automatically without being aware of what I'm doing' ($\alpha = .83$).

Analytical procedure

A moderation analysis was carried out by hand using SPSS 27. Although a multilevel analysis would have been more appropriate to analyse the data obtained in this study, this statistical technique is not part of the curriculum. Therefore, a regression analysis using aggregated data was conducted. Consequently, the results must be interpreted with caution. To run the regression, mean values were first created of all the scales used in the analysis, belonging, goal progress and trait mindfulness. Belonging and trait mindfulness were then centred. This was achieved by subtracting the mean of both variables from every individual case (Field, 2013). An interaction variable was thus created by multiplying the central values of belonging and trait mindfulness together. The interaction variable was used in the regression to test for a moderation effect. The regression was run with belonging acting as the independent variable, goal progress as the dependent variable and trait mindfulness as the moderating effect.

Results

Preliminary analysis

An assumption check was carried out as well as a residual plot and there were no serious violations found of homoscedasticity and linearity. The Durbin-Watson statistic of 2.44 indicated no correlation between the residuals and thus it can be concluded that there was no violation of the independence of errors (See Appendix B: Figure B1) (Schreiber-Gregory & Bader, 2018). The assumption of multicollinearity was tested using the variance inflation factor (VIF) and showed no violation of multicollinearity (See Appendix B: Table

B2) (C. G. Thompson et al., 2017). Descriptive statistics and correlations between the variables can be seen in Table 1.

Table 1Pearson Correlations, Means and Standard Deviations

	M	SD	1	2	3
1. Goal Progress	3.75	0.53			
2. Belonging	3.97	0.63	0.33*		
3. Trait Mindfulness	3.51	0.45	0.22	0.42	

Note. N = 87. M: Mean; SD: Standard Deviation

* p < 0.01

Moderation Analysis

Hypotheses Testing

The summary of the moderation analysis can be seen in Table 2. Overall, the model explained 12.3% of the variance of Goal Progress (See Appendix B: Table 1). The first hypothesis was found to be significant in that higher levels of belonging predict for enhancement of goal progress (b=.25, SE.09, p=.001) (H1). It was found that the relationship between trait mindfulness and goal progress was non-significant (b=.11, SE.14, p=.41) (H2). Finally, trait mindfulness was shown not to significantly moderate the relationship between belonging and goal progress. (b=-0.1, SE.16, p=.54). The hypothesis predicting that mindfulness would strengthen the relationship between belonging and goal progress can be discounted (H3).

See Figure 2 for a summary of the results of the moderation analysis of belonging and goal progress with trait mindfulness as a moderating variable.

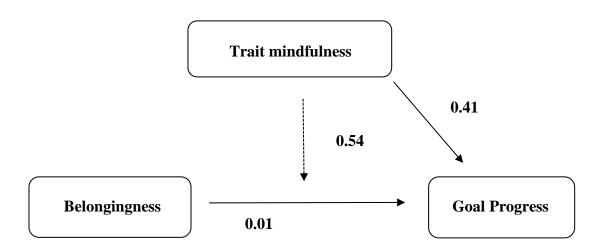
 Results of the Regression Analysis Predicting Goal Progress without Control Variables

						95% CI	
Step	Predictor	b	SE	В	p	LL	UL
1	Belonging	0.25	0.09	0.29	0.01	0.05	0.44
	Trait Mindfulness	0.11	0.14	0.09	0.40	-0.15	0.38
2	Belonging	0.25	0.09	0.29	0.01	0.05	0.44
	Trait Mindfulness	0.11	0.14	0.09	0.41	-0.15	0.38
	Belonging x Trait Mindfulness	-0.10	0.16	-0.06	0.54	-0.42	0.22

Note. N = 87. CI = Confidence interval; LL = Lower limit; UP = Upper limit.

Figure 1

Moderation model of Belonging and Goal Progress with Trait Mindfulness as a moderating variable.



Note. P-values between the variables are presented

The P value of the moderation is displayed by the dashed line.

Exploratory Analysis

In a further analysis, gender was used as a control variable. It was reasoned that gender may create an impact on the relationship between the variables for several reasons. For example, it was found that males and females place different levels of importance on belonging, as they have different cognitive appraisals of the same social groups (Nielsen & Foels, n.d.). It was also found that there was a greater variety in levels of mindfulness among females than males (Webb et al., 2021). Therefore, it was speculated whether gender would have an impact on the relationship between the variables presented in this study. Gender was coded as a dummy variable which was then controlled for in the analysis. Males were coded as 1, females and otherwise defined were coded as 0. The analysis was run in the same manner, except gender was added in the first step of the model alongside the predictor and moderator, and the interaction term was added in the second. From the results it can be seen in Table 3 that being male did predict positively for the moderation relationship between the variables, however, it was not a significant effect. We can thus conclude that gender does not have a significant impact on the results of the study.

Table 3Results of the Regression Analysis with Gender as the Control Variable.

-						95% CI	
Step	Predictor	b	SE	В	p	LL	UL
1	Belonging	0.25	0.09	0.29	0.01	0.05	0.45
	Trait Mindfulness	0.11	0.14	0.09	0.43	-0.16	0.38
	Gender (Control)	0.03	0.12	0.03	0.81	-0.22	0.27
2	Belonging	0.25	0.09	0.29	0.01	0.05	0.45

Trait Mindfulness	0.11	0.14	0.09	0.44	-0.16	0.38
Gender (Control)	0.02	0.12	0.02	0.85	-0.22	0.27
Belonging x Trait	-0.09	0.16	-0.06	0.55	-0.42	0.23
Mindfulness	-0.07	0.10	-0.00	0.55	-0.42	0.23

 $\overline{Note.\ N} = 87.\ \text{CI} = \text{Confidence interval};\ \text{LL} = \text{Lower limit};\ \text{UP} = \text{Upper limit}.$

Discussion

It was hypothesised that both belonging and mindfulness would predict positively goal progress, with mindfulness strengthening the relationship between the two. The findings of the moderation analysis elicited some interesting results. Firstly, belonging was found to positively predict for goal progress. It was found that individuals with a higher sense of belonging in the workplace were more successful in their goal progress. However, the findings of the analysis did not support the hypotheses that mindfulness would lead to enhanced goal progress or that mindfulness would strengthen the relationship between belonging and goal progress (see Table 2).

Theoretical Implications

The overarching goal of this research was to investigate whether mindfulness enhanced the relationship between belonging and goal progress in work. In previous research, relationships have been investigated between the factors presented in this study, however, rarely investigating their impact on employees in the workplace. This research aimed to resolve this discrepancy, as much of previous research focused on the impacts of belonging, mindfulness and goal progress specifically in school settings.

Evidence from past studies alluded to the fact that the first hypothesis would be supported, as they mainly suggest that a higher sense of belonging leads to enhanced goal progress (Ng & Feldman, 2009). Belonging has been said to be one of the basic requirements

that every human needs (Baumeister & Leary, 1995), and we can see that this can also be applied to the workplace, as a high sense of belonging leads a variety of benefits, with goal progress amongst them. However, as discussed before, a majority of research conducted on belonging and goal progress has been conducted within a school setting and ultimately this study gave additional and deeper value to this past research. These types of studies also resulted in belonging being a good driving factor towards school success, especially in terms of academia and on-time graduation (Goyer et al., 2021). From this study, we can conclude that a person's level of belonging has a significant impact on their goal progress. This is an important finding, as it can be of benefit to both employers and employees alike. If a sense of belonging can be promoted in the workplace, then employees will be able to achieve their goals in better and more effective ways. It was discovered that if a supervisor acknowledges an employee's efforts, then their need to belong is satisfied (Baumeister & Leary, 1995). This means that belonging can be increased from higher within the organisation and can be passed down amongst employees, to promote a coordinated and amicable atmosphere. To create this coordination among colleagues, so that they achieve their own respectful goals successfully, they must view their own goals as something they could not achieve without other employees (Latham & Locke, 2006). Therefore, from our study, we reason that employers should create an atmosphere where employees can rely on one another so that they are successful in their goal progress. Essentially, employees need to have interdependent goals so that they grow as a cohesive team and do not have competitive tendencies towards one another. Belonging is something that can be promoted by leaders within organisations and it is not only costeffective but ultimately a win-win for both the employees and the organisation.

Those that are more mindful are more likely to follow their intuition and general 'gut feeling' and are more likely to set goals that are more in line with their morals (Sheldon, 2014). From the results of studies such as these, it was expected that mindfulness would

predict positively for goal progress. Individuals in high-quality jobs set more achievable goals as they are more committed to the organisation as a whole (Ng & Feldman, 2009). However, it may be the case that not all participants in this study perceived their job to be of high quality. Thus, this may mean that work environment constraints mindfulness which has an overall effect on goal progress among colleagues. The Job-Demand-Control model by Karasek (1979) illustrates that a job is perceived as high-quality when employees experienced both high demands and high decision latitude in the workplace. This may mean that participants in this study experienced low levels of one or both demands and decision latitude, thus perceiving their job to be of low quality which may ultimately undermine their level of mindfulness. This disruption of mindfulness may go on to impact employees' goal progress. We can then go on to speculate that those higher in mindfulness, but who have perceived low-quality jobs may involve themselves more in goal disengagement and thus be not as embedded within their organisation as those that perceive their jobs to be of highquality (Ng & Feldman, 2009; Marion-Jetten et al., 2022). It may also be the case that mindfulness may not impact goal progress at all, and that perceived job quality is a more important factor in goal-setting and achievement, which could be assessed in future research. These are all potential elements that may affect the relationship significance between mindfulness and goal progress.

In our study, we also discovered that mindfulness did not strengthen the relationship between belonging and goal progress. Therefore, those that had higher levels of mindfulness would have a higher sense of belonging and this would lead to an enhancement of goal progress. This result may lead us to believe that belonging does not lead to higher levels of mindfulness as was previously predicted. There have been a few studies that focus on whether belonging can have an impact on one's mindfulness which contributes towards peoples' intimate relationships as people higher in mindfulness are more likely to be

empathetic and demonstrate benevolent actions towards one another (Galovan et al., 2022). This study aimed to see if these findings translated to the workplace and if employees higher in belonging would have increased mindfulness, thus increasing amicable work relationships. From these results, it can be seen that mindfulness did not strengthen this relationship. This could be the result of a combination of employees not being more personable (depending on their levels of mindfulness) towards one another as was originally predicted and that goal progress may depend on the quality a job is perceived to have (Ng & Feldman, 2009; Marion-Jetten et al., 2022). It may have been the case that belonging did not necessarily make participants more mindful of the relationships in their life, as they had varying levels of mindfulness in general (Roush et al., 2018). Another reason why mindfulness may not strengthen the relationship between belonging and goal progress may be related to a study conducted by (Briskin et al., 2019). Their results showed them that when support is demonstrated in a physical sense, for example, somebody helping you with an admin task, more goal progress is made than when support is spoken (such as words of encouragement). In (Galovan et al., 2022)'s study, it was demonstrated that individuals higher in mindfulness were more able to display empathetic qualities and engage in open and understanding communication. However, it may be the case that goal progress requires more action-based support rather than verbal (Briskin et al., 2019). This may mean that even if participants were mindful, this may not have influenced the relationship between their belonging and goal progress as they engaged in more verbal support rather than action-based support. Now that mindfulness is more openly talked about and promoted in the media, it can be speculated from this research whether mindfulness, really boasts as many benefits as it is claimed. Mindfulness, may help relationship quality and allow people to have increased awareness towards their goals (Smyth et al., 2020; Galovan et al., 2022), but it may not be necessary to purposefully implement it in the workplace. From this research, it can be concluded that

however mindful someone is, it will not affect their relationships in the workplace and thus ultimately their goal-progress.

Practical Implications

This study has considered various concepts and organisations can implement some techniques from the findings that they find useful to better the working body and organisation in general. Belonging is a very cost-effective benefit and it is manageable to implement it in the workplace. Firstly, as discussed above, embeddedness can allow people to increase their belonging within an organisation (Ng & Feldman, 2009). Organisations can implement more job embeddedness in many ways. When embeddedness is evident within an organisation, people tend to value their job and role within the organisation more than they would if it was not present (Ng & Feldman, 2009). For example, it can be achieved by creating links between teams through long-term projects, increasing organisational rewards' durability and matching employees to jobs that adequately challenge and complement their skills (Lee et al., 2004). When an individual feels as if they are contributing to the organisation while being challenged within their skill range, they are more likely to be committed to achieving their goals (Lee et al., 2004). Alongside this, organisations should adopt an approach where employees' goals are interdependent, so that they are both actively challenged but also rely on their colleagues for certain aspects of their progress (Lee et al., 2004; Latham & Locke, 2006). Organisations could foster and nurture this concept of belonging amongst employees by organising group workshops or open evaluation sessions regularly throughout the year so that a level of trust can be developed among employees.

A sense of belonging can aid in helping individuals counter potential burnout (Puranitee et al., 2022). There are several ways in which belonging can be enhanced in people working together and these techniques were outlined by (Puranitee et al., 2022) in their study. They discovered that autonomy, competency and relatedness with others were necessary to

prevent burnout. It was found that extracurricular activities and learning tasks relevant to them were most effective in increasing engagement among colleagues when they perceived to have good relationships with one another, received constructive feedback and had an understanding of expectations (Puranitee et al., 2022). In further research, it might be helpful to investigate whether interventions such as increased work-relevant extra-curricular activities for employees are beneficial towards not only their level of belonging among colleagues but also their embeddedness within their association and their perceived job quality. This research would help to elaborate on the important finding that an individual's belonging does enhance their goal progress.

Limitations and Future Research

Our study does contain limitations that should be acknowledged. The study design was longitudinal and comes with a few limitations such as the requirement of a large sample size. In the future, a different research design could be used. For example, this could be in the form of a true experimental research design, containing a control group. To establish a better understanding of the variables, mindfulness could act as a control variable. Participants could partake in a mindfulness intervention (while the control group do not), and it could be tested to see if the intervention had an impact on the relationship between participants' belonging and goal progress in the workplace. This may be a nice concept for future researchers to take into account, as it assesses mindfulness as a variable in its full sense and should elicit interesting results.

Secondly, generalisability should be taken into account. The sample of participants was chosen in the majority by the researchers, as they were mainly family and friends who wanted to help with the undertaking of the research. This meant that the sample size was also quite small which may affect the precision of the results that were found. This also limited the variability of participants as most were based in Europe for example, and working

conditions vary worldwide. In the future, researchers may benefit from recruiting participants more internationally and on a grander scale. Not only would it result in a larger pool of participants, but it would give more insight into the cultural differences and work environments experienced worldwide. Combined with a consistent mindfulness intervention, as stated above, it would be interesting to see how the intervention would impact participants of multiple ages, ethnicities and working backgrounds. This would then give a better perspective on how the variables interact with one another as well as obtain more precise results.

Conclusion

This research used a moderation model to investigate whether trait mindfulness strengthened the relationship between belonging and goal progress in employees in the workplace. The results showed that mindfulness did not strengthen this relationship, nor did mindfulness predict positively for goal progress alone. However, it was found that belonging predicted positively for goal progress, meaning that if employees felt a sense of belonging in their work environment, they were more successful in attaining their goals. These findings add to the existing literature as the presence of belonging is also relevant for the workplace, as most past literature focuses on the impact of belonging in school settings. In this way, these findings reinforce the importance of the presence of a sense of community and salient support in the workplace to employers, so that they can begin to create and/or maintain belonging amongst employees to maximise the overall success of the organisation.

References

- Allen, K. A., Gray, D. L. L., Baumeister, R. F., & Leary, M. R. (2022). The Need to Belong: a Deep Dive into the Origins, Implications, and Future of a Foundational Construct. In *Educational Psychology Review* (Vol. 34, Issue 2, pp. 1133–1156). Springer. https://doi.org/10.1007/s10648-021-09633-6
- Baumeister, R. F., & Leary, M. R. (1995). The Need to Belong: Desire for Interpersonal Attachments as a Fundamental Human Motivation. In *Psychological Bulletin* (Vol. 117, Issue 3).
- Beckman, H. B., Wendland, M., Mooney, C., Krasner, M. S., Quill, T. E., Suchman, A. L., & Epstein, R. M. (2012). The impact of a program in mindful communication on primary care physicians. *Academic Medicine*, 87(6), 815–819. https://doi.org/10.1097/ACM.0b013e318253d3b2
- Briskin, J. L., Kopetz, C. E., Fitzsimons, G. M., & Slatcher, R. B. (2019). For Better or for Worse? Outsourcing Self-Regulation and Goal Pursuit. *Social Psychological and Personality Science*, *10*(2), 181–192. https://doi.org/10.1177/1948550617736112
- Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, 84(4), 822–848.
- Chan, S. (2016). Belonging to a workplace: first-year apprentices' perspectives on factors determining engagement and continuation through apprenticeship. *International Journal for Educational and Vocational Guidance*, 16(1), 9–27. https://doi.org/10.1007/s10775-014-9282-2
- Choi, E., Gruman, J. A., & Leonard, C. M. (2022). A balanced view of mindfulness at work.

 *Organizational Psychology Review, 12(1), 35–72.

 https://doi.org/10.1177/20413866211036930

- Daniel, C., Gentina, E., & Mesmer-Magnus, J. (2022). Mindfulness buffers the deleterious effects of workaholism for work-family conflict. *Social Science and Medicine*, *306*. https://doi.org/10.1016/j.socscimed.2022.115118
- Eftekhari, E., Tran, A., & McGregor, I. (2017). Decentering increases approach motivation among distressed individuals. *Personality and Individual Differences*, *119*, 236–241. https://doi.org/10.1016/j.paid.2017.07.035
- Field, A. P. (2013). Discovering statistics using IBM SPSS statistics: and sex and drugs and rock "n" roll (4th edition). Los Angeles: Sage.
- Fresco, D. M., Moore, M. T., van Dulmen, M. H. M., Segal, Z. v., Ma, S. H., Teasdale, J. D., & Williams, J. M. G. (2007). Initial Psychometric Properties of the Experiences

 Questionnaire: Validation of a Self-Report Measure of Decentering. *Behavior Therapy*,

 38(3), 234–246. https://doi.org/10.1016/j.beth.2006.08.003
- Galovan, A. M., Osorio, J. Z., Crapo, J. S., Schramm, D. G., & Drebit, E. (2022). A Strong Relationality View of Mindfulness and Flourishing I–Thou Relations: A Dyadic Analysis. *Journal of Family Psychology*. https://doi.org/10.1037/fam0000997
- Glomb, T. M., Duffy, M. K., Bono, J. E., & Yang, T. (2011). Mindfulness at work. Research in Personnel and Human Resources Management, 30, 115–157.
 https://doi.org/10.1108/S0742-7301(2011)0000030005
- Good, D. J., Lyddy, C. J., Glomb, T. M., Bono, J. E., Brown, K. W., Duffy, M. K., Baer, R. A., Brewer, J. A., & Lazar, S. W. (2016). Contemplating Mindfulness at Work: An Integrative Review. *Journal of Management*, 42(1), 114–142.
 https://doi.org/10.1177/0149206315617003
- Goodall, K., Trejnowska, A., & Darling, S. (2012). The relationship between dispositional mindfulness, attachment security and emotion regulation. *Personality and Individual Differences*, 52(5), 622–626. https://doi.org/10.1016/j.paid.2011.12.008

- Goyer, J. P., Walton, G. M., & Yeager, D. S. (2021). The role of psychological factors and institutional channels in predicting the attainment of postsecondary goals. Developmental Psychology, 57(1), 73–86. https://doi.org/10.1037/dev0001142
- Hagerty, B. M. K., Lynch-Sauer, J., Patusky, K. L., Bouwsema, M., & Collier, P. (1992).

 Sense of Belonging: A Vital Mental Health Concept.
- Hülsheger, U. R., & Alberts, H. J. E. M. (2021). Assessing facets of mindfulness in the context of work: The Mindfulness@Work Scale as a work-specific, multidimensional measure of mindfulness. *Applied Psychology: An International Review*, 70(4), 1728–1783. https://doi-org.proxy-ub.rug.nl/10.1111/apps.12297
- Karasek, R. (1979). Job demands, job decision latitude, and mental strain: Implications for jobredesign. Administrative Science Quarterly, 24(2), 285-306. doi: 10.2307/2392498
- Koestner, R., Otis, N., Powers, T. A., Pelletier, L., & Gagnon, H. (2008). Autonomous motivation, controlled motivation, and goal progress. *Journal of Personality*, 76(5), 1201–1230. https://doi.org/10.1111/j.1467-6494.2008.00519.x
- LATHAM, G. P., & LOCKE, E. A. (2006). Enhancing the Benefits and Overcoming the Pitfalls of Goal Setting. *Organizational Dynamics*, *35*(4), 332–340. https://doi.org/10.1016/j.orgdyn.2006.08.008
- Lazarus, R. S., and Folkman, S. (1984). *Stress, Appraisal, and Coping*. New York, NY: Springer.
- Lee, T. W., Mitchell, T. R., Sablynski, C. J., & Burton, J. P. (2004). THE EFFECTS OF JOB EMBEDDEDNESS ON ORGANIZATIONAL CITIZENSHIP, JOB PERFORMANCE, VOLITIONAL ABSENCES, AND VOLUNTARY TURNOVER. In *Academy of Management Journal* (Vol. 47, Issue 5).
- Marion-Jetten, A. S., Taylor, G., & Schattke, K. (2022). Mind Your Goals, Mind Your Emotions: Mechanisms Explaining the Relation Between Dispositional Mindfulness and

- Action Crises. *Personality and Social Psychology Bulletin*, *48*(1), 3–18. https://doi.org/10.1177/0146167220986310
- Ng, T. W. H., & Feldman, D. C. (2009). Occupational embeddedness and job performance. *Journal of Organizational Behavior*, 30(7), 863–891. https://doi.org/10.1002/job.580
- Nielsen, B. R., & Foels, R. (n.d.). Gender Differences in the Need to Belong: Different Cognitive Representations of the Same Social Groups.
- Puranik, H., Koopman, J., & Vough, H. C. (2021). Excuse Me, Do You Have a Minute? An Exploration of the Dark and Bright-Side Effects of Daily Work Interruptions for Employee Well-Being. *Journal of Applied Psychology*, *106*(12), 1867–1884. https://doi.org/10.1037/apl0000875
- Puranitee, P., Kaewpila, W., Heeneman, S., van Mook, W. N. K. A., & Busari, J. O. (2022).

 Promoting a sense of belonging, engagement, and collegiality to reduce burnout: a mixed methods study among undergraduate medical students in a non-Western, Asian context. *BMC Medical Education*, 22(1). https://doi.org/10.1186/s12909-022-03380-0
- Roush, J. F., Mitchell, S. M., Brown, S. L., & Cukrowicz, K. C. (2018). Thwarted interpersonal needs mediate the relation between facets of mindfulness and suicide ideation among psychiatric inpatients. *Psychiatry Research*, 265, 167–173. https://doi.org/10.1016/j.psychres.2018.04.026
- Rosen, C. C., Simon, L. S., Gajendran, R. S., Johnson, R. E., Lee, H. W., & Lin, S.-H. (Joanna). (2019). Boxed in by your inbox: Implications of daily e-mail demands for managers' leadership behaviors. *Journal of Applied Psychology*, *104*(1), 19–33. https://doi-org.proxy-ub.rug.nl/10.1037/apl0000343
- Schreiber-Gregory, D., & Bader, K. (2018). *Logistic and Linear Regression Assumptions:* Violation Recognition and Control.

- Sheldon, K. M. (2014). Becoming Oneself: The Central Role of Self-Concordant Goal Selection. *Personality and Social Psychology Review*, *18*(4), 349–365. https://doi.org/10.1177/1088868314538549
- Smyth, A. P. J., Werner, K. M., Milyavskaya, M., Holding, A., & Koestner, R. (2020). Do mindful people set better goals? Investigating the relation between trait mindfulness, self-concordance, and goal progress. *Journal of Research in Personality*, 88. https://doi.org/10.1016/j.jrp.2020.104015
- Thompson, C. G., Kim, R. S., Aloe, A. M., & Becker, B. J. (2017). Extracting the variance in flation factor and other multicollinearity diagnostics from typical regression results.

 *Basic and Applied Social Psychology, 39(2), 81–90. APA PsycInfo.

 https://doi.org/10.1080/01973533.2016.1277529
- Twiname, L. J., Humphries, M., & Kearins, K. (2006). Flexibility on whose terms? *Journal of Organizational Change Management*, 19(3), 335–355. https://doi.org/10.1108/09534810610668346
- Webb, L., Sibinga, E., Musci, R., Clary, L. K., & Mendelson, T. (2021). Confirming Profiles of Comorbid Psychological Symptoms in Urban Youth: Exploring Gender Differences and Trait Mindfulness. *Journal of Youth and Adolescence*, 50(11), 2249–2261. https://doi.org/10.1007/s10964-021-01509-w
- William Lee, T., Burch, T. C., & Mitchell, T. R. (2014). The Story of Why We Stay: A

 Review of Job Embeddedness. In *Annual Review of Organizational Psychology and*Organizational Behavior (Vol. 1, pp. 199–216). Annual Reviews Inc.

 https://doi.org/10.1146/annurev-orgpsych-031413-091244
 - Zimmerman, B. J. (2000). Attaining self-regulation: A social cognitive perspective. In
 M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation*(pp. 13–39). Academic Press. https://doi.org/10.1016/B978-012109890-2/50031-7

Appendix A

Note. (R) = reverse

Baseline questionnaire

Trait mindfulness scale

Please read the following statements about your work experiences and indicate to what extent they applied to you in the past few weeks.

1= strongly disagree, 2= somewhat disagree, 3= neither agree nor disagree, 4= somewhat agree, 5= strongly agree

- 1. When I experience unpleasant emotions during work, they easily take over. (R)
- 2. When negative things happen at work, I have immediate intense reactions. (R)
- 3. In stressful situations at work, I have difficulty staying calm and reacting thoughtfully. (R)
- 4. When people at work show strong emotions, I immediately react with strong emotions myself. (R)
- 5. When I have distressing thoughts at work, I am able just to notice them without reacting.
- 6. During work, I find it easy to stay focused on the task at hand.
- 7. When I talk to others at work, I fully focus on that person and listen attentively.
- 8. In work meetings, I can easily focus on what is going on without starting to think about something else.
- 9. At work, I quickly realize when my thoughts wander off and bring my attention back to what I am currently doing.
- 10. I rush through activities without being really attentive to them when I'm at work. (R)
- 11. At work, I do jobs or tasks automatically without being aware of what I'm doing. (R)
- 12. When I am working, I'm only focused on what I'm doing, nothing else.

- 13. When I am working on something, part of my mind is occupied with other topics, such as what I'll be doing later, or things I'd rather be doing. (R)
- 14. At work, I can easily put my thoughts into words.
- 15. I have trouble finding the right words to express to my colleagues how I feel about things. (R)
- 16. When it comes to work-related issues I can easily put my beliefs, opinions, and expectations into words.
- 17. In discussions at work, it's hard for me to find the words to describe what I'm thinking. (R)
- 18. At work, I am good at finding the words to describe my feelings
- 19. When I have negative feelings at work, I get angry or disappointed that this happens to me. (R)
- 20. At work, I tell myself I shouldn't be feeling the way I'm feeling. (R)
- 21. At work, I criticize myself for having irrational or inappropriate emotions. (R)
- 22. I think some of the emotions I experience at work are bad or inappropriate and I shouldn't feel them. (R)

Afternoon questionnaire

Belongingness scale

Rate the statements based on your experience since arriving at work this morning:

1 strongly disagree; 2 disagree; 3 neither agree nor disagree; 4 agree; 5 strongly agree

- 1. I felt well-accepted by others at work
- 2. I felt like I really belong
- 3. I felt connected with others at work
- 4. I felt close to others at work
- 5. I felt isolated from others at work (R)

Evening Questionnaire

Goal Progress Scale

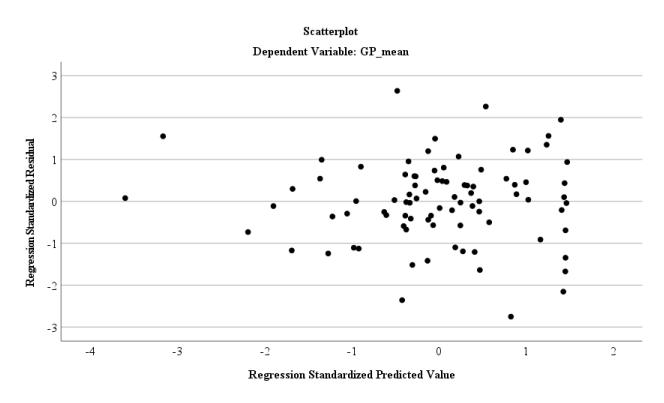
At the end of this workday, how do you evaluate your work today?

5 point scale: 1 = I fully disagree; 5 = I fully agree

- 1. I have made good progress on my work goals.
- 2. I had a productive day in relation to my work goals.
- 3. I have moved forward with my work goals.

Appendix B

Figure B1Residual plot of standardised residuals and standardised predicted values



Note. Scatterplot to test for assumption of homoscedasticity and linearity.

Dependent variable: Goal Progress

Table B1Durbin-Watson test

Model ^{1,2}	R	\mathbb{R}^2	Durbin-Watson
1	0.345	0.119	
2	0.351	0.123	2.444

Note. The output of regression analysis including Durbin-Watson test for assumption of independence of errors.

¹Predictors: Belongingness, Trait Mindfulness

²Dependent variable: Goal Progress

Table B2

VIF of predictor variables

Model	VIF
В	1.2
TM	1.2
Int	1

Note. Collinearity statistics to test for multicollinearity.

Dependent variable: Goal Progress

VIF: Variance Inflation Factor; B: Belongingness; TM: Trait Mindfulness; Int: Interaction term (Belonging x Trait Mindfulness)