Repeat Downsizing: Legacy, Recency, and Sensitisation Effects

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Abstract

This empirical study set in a large multinational pharmaceutical company analyses three effects of repeat downsizing on commitment based on Moore and colleagues' research (2004; 2006). Results confirm a legacy effect whereby previous exposure to downsizing continues to influence commitment years after the initial exposure and a recency effect given by a greater negative effect of recent downsizing events compared to previous downsizing. A sensitisation effect was observed only among employees with a double direct exposure to the same downsizing method.

Keywords: *repeat downsizing, commitment, legacy, recency, vulnerability, sensitisation*

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1. Introduction

The normalisation of downsizing and increased casualisation of employment have exacerbated the rate of employee direct and indirect exposure to workforce reduction. Despite the large body of literature on the effect of downsizing, empirical evidence on whether these effects persist over time is limited. Furthermore, although most empirical studies on the long-term effect of downsizing on employees support a vulnerability perspective (Moore et al., 2004), evidence suggests that some organisationally desirable outcomes can recover over time (Allen et al., 2001).

Extant literature on the duration of the effect of downsizing and how the interaction of multiple downsizing exposures affect organisations and employees can be split into three perspectives (Arzuaga and Gandolfi, 2021). First, the economic perspective, which focuses on how multiple downsizing affects financial indicators, establishes that repeat downsizing signals the market negatively without addressing the underlying causes of organisational difficulties (Carriger, 2017). Although, there is evidence that some of the negative effects of downsizing fade over time (De Meuse et al., 2004), repeat downsizing has an overall negative effect on organisational performance.

The second perspective refers to how downsizing affects employees' psychological contract. As with the economic perspective, there are conflicting

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accounts. Some contract obligations are negatively affected by downsizing and remain so in the long-term, but other desirable attitudes and behaviours are either less affected or can improve over time (Allen et al., 2001). The implication of these results is that the long-term effect of downsizing and the impact of repeat exposure to downsizing are contingent on a multitude of factors, among them, the specific outcome under study.

Finally, the well-being perspective analyses one of the central questions of downsizing, i.e., whether repeat exposure leads to resilience or vulnerability. This perspective focuses on two sets of outcomes, physiological and psychological. While the impact of repeat downsizing on physiological measures is minimal (Ferrie, 2002), the impact on psychological measures of well-being such as depression and self-reported measures of health is pronounced. Interestingly, gaining job security does not immediately improve psychological well-being (Ferrie, 2002).

Two landmark studies in the field found strong support for the vulnerability perspective (Moore et al., 2004 and 2006). The first study set out to uncover the effect of repeat exposure to layoffs on outcomes such as job security, leave intent and depression. It found that indirect and direct layoff contact had a greater negative effect on employees than no layoff contact. Similarly, two layoff contacts had a greater negative impact on employees than one single contact. Although this study anticipated that having two contacts of a similar nature, i.e., two indirect or two direct layoff exposures, would be less detrimental than having a mixed exposure, direct and indirect, on the grounds that resilience would be linked to the similarity of the experience (Dougall et al., 2000). Results showed that having at least one direct contact, either during the first or second layoff exposure, led to worse outcomes than having a double indirect contact. The authors concluded that employees do not get used to downsizing and that there is no evidence that they gain in resilience (Moore et al., 2004). These results indicate that the nature of downsizing exposure, direct or indirect, affects employees' attitudes because the nature of the exposure places different demands upon them.

The second study by Moore and colleagues (2006) focuses on the interaction between different downsizing waves and its impact on job security, leave intent and depression. It characterises repeat downsizing as a mixture of the acute stressor effect of a single downsizing exposure and the chronic stressor effect of ongoing downsizing. Three main effects were analysed: recency, duration, and the effect of the order of layoff experiences.

Recency refers to the extent to which past experiences continue to shape the way recent experiences are dealt with and whether more recent downsizing exposures shape employee reactions regardless of past experiences. Results showed that more recent downsizing experiences have a greater effect on employees than older experiences.

Analysing the duration of the effect of downsizing established that downsizing has a long-term negative effect although the duration of such effect varies as some outcomes, like leave intent and depression seem more sensitive to

recent than past events. Direct contact with layoffs was shown to lower job security even if the contact happened a long time ago.

To investigate the effect of the order in which layoff was experienced, these authors considered the four permutations of two types of layoff contact (direct and indirect). Their findings suggest that employees who went from an indirect layoff contact to a direct one had greater job insecurity, intent to leave, and depression. Although limited, there is evidence that changes in the type of experience lead to worse outcomes than facing the same experience twice which may indicate that employees develop some coping mechanisms or become desensitised to downsizing. However, none of the outcomes analysed returned to pre-layoffs levels, therefore there is not enough evidence to support a resiliency interpretation of the effect of repeat downsizing. In short, Moore et al.'s work shows that downsizing affects employees negatively both in the short and long term but the effects are worse for those directly exposed.

The two studies by Moore and colleagues (2004; 2006) illustrate the complexity of the downsizing phenomenon and the importance of considering the long-term effect of workforce reductions. However, due to the characteristics of the organisational setting where the studies took place as well as issues with the analytical procedure, these authors acknowledge that their findings may offer a skewed version of the effect of downsizing and call for further studies to test their generalisability.

This empirical paper seeks to extend the work by Moore et al. (2004; 2006), through exploring the long-term effect of downsizing and the effect of repeat exposure to downsizing on affective organisational commitment (henceforth commitment) through analysing a) whether the effect of the first exposure to downsizing have an effect on commitment 2 or 3 years after downsizing contact; b) whether commitment is more affected by the first or the second downsizing exposure and c) whether being directly exposed to downsizing twice has a resilience or sensitisation effect.

There are important differences between this study and Moore and colleagues' work. First, we look at downsizing through voluntary redundancies, closure of units, and layoffs. This allows for a more comprehensive understanding of the impact of downsizing and to differentiate between the effects of different downsizing methods. Second, we rely on objective criteria - functional specialism and location - to create downsizing exposure groups thus eliminating the issues caused by using subjective measures of exposure, e.g., whether a colleague or friend has been downsized, and self-reported data.

Third, our study is set in one of the world's largest pharmaceutical multinational organisations which facilitates isolating the effect of downsizing from features of a single national context which may affect the way organisations downsize through local labour laws, socio-economical aspects, or cultural factors. Analysing knowledge workers' reactions to downsizing expands the literature on downsizing which is currently heavily focused on manufacturing employees.

Finally, the focus of this research is commitment, which has been the subject of many previous studies on the effect of downsizing (Mansour-Cole and Scott, 1998; Parzefall, 2012) but has rarely been analysed in the context of repeat downsizing. Two studies by Armonstrong-Stassen (1997; 2002) and one by Grunberg (et al., 2000) have looked at how downsizing affects commitment in the long term either as part of the same downsizing wave or when subject to multiple downsizing waves.

Armstrong-Stassen (1997) found evidence of a deleterious effect of repeat exposure to layoffs on affective commitment but not on continuance commitment. While the 2002 study found that commitment outcomes were contingent on downsizing contact, i.e., survivors not designated redundant had stable levels of commitment over the three year-period analysed but survivors who had been designated redundant and ended up not leaving the organisation had lower commitment in the short-term but commitment levels increased steadily over time to the point of being higher, towards the end of the study than commitment among employees not designated redundant. Grunberg et al. (2000) reported significant negative effects of layoffs on commitment two years after exposure.

For the purpose of this study, we consider commitment as an individual's affective attachment to the organisation, its value systems and goals which includes the perception of one's role in the bigger organisational context (Cook and Wall, 1980). Changes in the nature of employment relations have made scholars question whether commitment is desirable, important or if it can realistically be expected in today's workplace (Cappelli, 2000; Cappelli, 2006 in Klein et al., 2012). We contend that commitment remains relevant for employees and organisations alike. At an individual level, employee commitment is linked to well-being indicators (Wanberg et al., 1999) as well as to professional identity and self-esteem, especially among knowledge workers (Wayne et al., 2007).

At an organisational level, the performance-assisting behaviour of committed employees improves the work environment and facilitates the emergence of discretionary behaviour targeted to avoid redundancies and filling in performance gaps (Allen & Grisaffe, 2001 in Conway and Briner, 2012). Having highly committed employees can be a critical success factor in knowledge-intensive industries because knowledge workers' intellectual contributions and individual behaviours are crucial for successful service delivery (Swailes, 2002).

To analyse how downsizing affects commitment both in the long-term and in the context of repeat downsizing, we focus on three effects: legacy, recency, and sensitisation.

1.1 Legacy effect

Moore and colleagues (2006) examined what they called *duration* of downsizing defined as the extent to which past experiences continue to impact work affect during repeat downsizing. We share the view that previous exposure to downsizing will impact commitment among employees directly exposed to

downsizing for a second time. We agree that the impact of the initial shock on commitment, sustained during the first downsizing wave, will be observable among employees with a direct exposure to the second wave. We call this effect legacy which we feel is a more appropriate label for an effect that is left over from a previous experience.

Following an affective events theory (AET) perspective (Weiss and Cropanzano, 1996), we believe that downsizing events, which can be considered an affective event, influence reactions to subsequent work events, such as a second downsizing wave. AET posits that positive and negative emotional events are differentiable and have diverging effects on employees who react through performance or commitment. Even minor events with emotional consequences have the ability to affect individual work outcomes (Weiss and Cropanzano, 1996) but the effect of positive and negative events is not symmetrical. Negative events have approximately 5 times the impact on mood than positive events (Miner et al., 2005).

Hypothesis 1 (H1): Previous exposure to downsizing has a significant impact on commitment among employees exposed to downsizing for a second time (legacy effect).

1.2 Recency effect

Although there is no objective way to determine what events will be more salient for employees, it is clear from previous research (Moore et al., 2006) that the timing and order of events matter. Timing is important as individuals rely on heuristics such as availability, which refers to the ease with which people recognise situations based on their similarity to previous experiences (Kahneman and Tversky, 1972) such that more salient knowledge is used more frequently to make evaluations. Since more recent events, especially those with traumatic potential like downsizing are likely to be more salient in employees' minds, we posit that:

Hypothesis 2 (H2): Recent exposure to downsizing will have a greater negative effect on commitment than previous exposure to downsizing (recency effect).

1.3 Sensitisation effect

Although existing empirical evidence suggests that repeat exposure to downsizing does not lead to employees becoming accustomed to it, there are suggestions that the sensitisation effect is less pronounced as employees have more contact with layoffs (Moore et al., 2006). However, a reduction on the rate of decline of work-related affect among employees who have a similar repeat exposure to downsizing does not equate resiliency because work affect does not recover to pre-downsizing levels. We postulate that the similarity of the trauma in the context of downsizing does not lead to building better coping mechanisms to deal with it as proposed by Dougall et al. (2000). Instead, it diminishes employees' ability to deal with said trauma which leads to a sensitisation, not a resiliency effect.

The vulnerability perspective accounts for the number of times that individuals are exposed to trauma as well as the nature of the exposure. For the purpose of this study, we concentrate on the nature of downsizing contact, defined as the combination of degree of exposure and the downsizing method experienced, rather than the number of exposures. We consider the two naturally occurring downsizing waves in PharmaTech as two downsizing contacts and look at how different combinations of downsizing exposure affect commitment. We anticipate that:

Hypothesis 3 (H3): Repeated direct exposure to downsizing leads to lower employee commitment (sensitisation effect).

2. Methods

A cross-sectional design was used to test the hypotheses using two sources of data: downsizing announcements that identified 8 units subject to downsizing twice, and the internal employee survey which was used to measure commitment.

2.1 Organisational context

PharmaTech is a multinational pharmaceutical company whose downsizing programme was announced in 2006 and implemented between 2007 and 2010. Voluntary and involuntary downsizing methods were used, namely voluntary redundancies, layoffs, closure of sites, and divestment of units. As a result of the strategic downsizing decisions made in PharmaTech, eight units were exposed to downsizing both directly and indirectly more than once. Seven units included in this analysis were located in Europe and one was located in North America.

2.2 Data

Downsizing announcements between 2006 and 2010 were used to identify units targeted in the downsizing programme. Two distinct waves of downsizing were identified in the data; the first one was implemented between 2007 and October 2008, targeting employees in operations, administration, and sales, and the second one took place between late 2008 and September 2010, targeting all activities including scientific roles. There were 8 announcements of layoffs, five announcements of closure of sites and one announcement of voluntary redundancies in that period. Approximately 9,900 positions were targeted for reduction. Five sites were targeted for layoffs at least twice while two sites were targeted for downsizing through a combination of voluntary redundancies, layoffs, and closure of units in the two downsizing waves.

The 2010 internal employee attitude survey, with a response rate of 67.14% among employees directly threatened by downsizing announcements, was used to measure individual-level commitment. Only employees directly exposed to downsizing in the second wave were chosen in order to reduce variability in the

sample as there are also employees who were indirectly or not exposed to downsizing. Reducing variability in degrees of exposure allows for an exploration of the effect of previous exposure to downsizing and the effect of repeat downsizing more effectively as it focuses on the interaction of downsizing waves through removing some confounding variables. A very small group of employees who were directly exposed to downsizing during the second wave but who did not have a prior exposure to downsizing were removed from the sample.

2.3 Sample characteristics

The sample for this study was 6,254, 78.6% of which were employees, and the rest were managers or senior leaders. The sample was almost equally divided between males and females; 18.9% had less than 5 years of organisational tenure while 46.7% had been with the organisation for 10 years or more. More than 76% of the sample were between 30 and 49 years old and 18.8% were 50 years old or more. Only the employees directly exposed to layoffs in the second wave had different previous downsizing experiences and only employees who had been indirectly exposed to layoffs in the first downsizing wave had different downsizing experiences in the second wave. Table 1 shows the naturally occurring distribution of the sample according to downsizing exposure.

Table 1. Sample distribution according to downsizing exposure.

Second downsizing wave / First downsizing wave	**Directly exposed to voluntary redundancies**	**Directly exposed to layoffs (n=1339, 21.4%)**	**Directly exposed to closure of units**
Indirectly exposed to layoffs (n=5766, 92.2%)	3,497 (55.92%)	851 (13.61%)	1,418 (22.67%)
Directly exposed to layoffs	-	404 (6.46%)	-
Directly exposed to closure of units	-	84 (1.34%)	-

2.4 Measures

2.4.1 Dependent variable: commitment was measured using a 4-item composite scale based on the Organisational Commitment Questionnaire (OCQ, Mowday et al., 1979) and the British Organisational Commitment Scale (BOCS, Cook and Wall, 1980) with answers recorded on a 5-point scale from Disagree (1) to Agree (5). Sample items include "I am proud to work for PharmaTech" (OCQ and BOCS) and "I would recommend PharmaTech as a good place to work" (BOCS).

Confirmatory factor analysis confirmed the validity and reliability of this scale (Table 2).

Table 2. Confirmatory factor analysis test of the commitment scale.

Index	$\chi 2$	d.f	*p**	AVE	CR	RMSEA	CFI	GFI	Cronbach's alpha
Statistic	63.1	2	.000	.72	.91	.07	.996	.995	.91

Note: * significant values expected for large samples (n>200) (Hair at al., 2014)

2.4.2 Independent variables

Previous downsizing exposure: this variable refers to the type of downsizing method and the degree of exposure to downsizing that employees experienced during the first downsizing wave. Employees directly exposed to downsizing during the second wave were identified at a unit level (e.g., Finance department in Manchester, UK) and their previous downsizing experience was determined through downsizing announcements for the first wave. Three types of previous downsizing experience were identified: (1) indirectly exposed to layoffs, (2) directly exposed to layoffs, and (3) directly exposed to closure of units. Directly exposed employees were those in areas targeted for downsizing, while indirectly exposed employees were on the same country as units targeted for downsizing. Because of the geographical nature of downsizing decisions in PharmaTech, country represents a meaningful variable to differentiate between degrees of exposure.

Recent downsizing exposure: this variable represents the downsizing method that employees were directly exposed to during the second wave: voluntary redundancies (1), layoffs (2), and closure of units (3).

Combined exposure: this is the measure of interaction between previous and recent exposure to downsizing. It represents five naturally occurring combinations of exposure: indirectly exposed to layoffs during the first downsizing wave and directly exposed to voluntary redundancies during the second wave [ILay-DVol] (1); indirectly exposed to layoffs and directly exposed to layoffs [ILay-DLay] (2); directly exposed to layoffs in both waves [DLay-DLay] (3); directly exposed to closure of units and directly exposed to layoffs [DClos-DLay] (4), and indirectly exposed to layoffs and directly exposed to closure of units [ILay-DClos] (5). See Table 1 for combinations and cell sizes.

Control variables: respondents' job level (employee (1), middle manager (2), and senior leader (3), sex, age, organisational tenure, and country were controlled for in the analysis.

2.4.3 Procedure

Analyses of covariance using post-hoc tests with a Bonferroni adjustment and special contrasts were used to test the hypotheses. Preliminary exploration of the data and testing of assumptions were carried out and revealed no cause for concern. A stringent alpha level of 0.01 was used to protect against Type I error.

3. Results

Table 1 shows the sample size for each combination of current and previous downsizing experience. A direct exposure to voluntary redundancies in 2010 preceded by indirect exposure to layoffs in 2008 is the commonest combination of exposure. All variables correlated significantly with commitment, except for job level (Table 3). Employees with less organisational tenure, females and younger employees had greater levels of commitment. A decline in commitment was observed a) as exposure to downsizing during the first wave increased; b) among employees directly exposed to closure of units in 2010, and c) where contact with downsizing in both waves was of a closer nature. Neither age nor job level correlated significantly with exposure to the first downsizing wave.

Table 3. Correlations, means and standard deviation

	1	2	3	4	5	6	7	8	9
(1) Commitment	M=4.19 SD=0.99	-.191**	-.069**	-.058**	0.014 (*p*=.26)	.224**	-.086**	-.492**	-.489**
(2) Tenure		M=5.42, SD=0.96	.087**	.470**	.198**	-.100**	.146**	.273**	.259**
(3) Gender			M=1.49 SD=0.5	.102**	.154**	.041**	.067**	.056**	.048**
(4) Age				M=3.76 SD=0.87	.158**	-.080**	-0.01 (*p*=.43)	.167**	.172**
(5) Job level					M=1.24 SD=0.49	-.098**	-0.017 (*p*=.17)	.190**	.197**
(6) Country						M=14.64 SD=2.23	-.160**	-.484**	-.522**
(7) Previous downsizing exposure							M=2.09 SD=0.34	.218**	.106**
(8) Combined exposure								M=2.65 SD=2.07	.990**
(9) Recent exposure									M=2.67 SD=0.82

** Correlation is significant (*p*<.001*)* at the 0.01 level (2-tailed). N=6254

Hypotheses one and two were tested on the full sample. However, due to the natural combination of exposures, H3 was tested using a subsample, i.e., employees with a double direct exposure (N=1339). Preliminary overall tests including the covariates were carried out as described below.

To test H1 we examined the effect of previous exposure to downsizing among employees directly exposed to downsizing during the second wave. We found a significant, albeit small, main effect of previous exposure [$F(2, 6246)=5.08$, $p=.006$, partial $\eta^2=.002$] defined as: (a) indirectly exposed to layoffs, (b) directly exposed to layoffs, or (c) directly exposed to closures in the first downsizing wave. All the covariates had significant main effects which were larger for tenure (partial $\eta^2=.030$). Bonferroni post-hoc tests (Table 4) revealed that commitment among employees indirectly exposed to layoffs during the first downsizing wave was significantly higher than among employees directly exposed to layoffs.

Employees who were directly exposed to layoffs had significantly lower commitment than employees directly exposed to closure of units. Commitment differences between employee indirectly exposed to layoffs and employees directly exposed to closures were not significant. H1 was supported, there is a significant but small effect of previous downsizing exposure on commitment.

Table 4. Descriptive statistics and Post-hoc comparisons using a Bonferroni adjustment (mean differences and significance level shown)

Descriptive statistics (dependent variable: commitment)

	Mean	SD	N
Indirect exposure to layoffs	4.22	0.98	5766
Direct exposure to layoffs	3.83	1.06	404
Direct exposure to closure of units	4.02	1.03	84
Total	4.19	0.99	6254

Post-hoc test results

	Indirect exposure to layoffs	Direct exposure to layoffs	Direct exposure to closure of units
Indirect exposure to layoffs	4.197*	0.135 $p=.02$	-0.156 $p=.40$
Direct exposure to layoffs		4.062*	-0.292 $p=.03$
Direct exposure to closure of units			4.354*

* Estimated marginal means. Covariates appearing in the model are evaluated at the following values: job level=1.24, tenure=5.42, gender=1.49, age=3.76, country=14.65.

Hypothesis 2 was tested by comparing the effects of previous and recent downsizing exposure. Recent downsizing exposure, defined as directly exposed to voluntary redundancies (1), directly exposed to layoffs (2) and directly exposed to closure of units (3) during the second downsizing wave, had a large effect on commitment [$F(2, 6246)=745.64$, $p<.001$, partial $\eta^2=.193$] which was significantly different among all three groups (Table 5). Country was the only covariate without a significant main effect ($p=.449$) while job level had the largest effect (partial $\eta^2=.022$). The effect of previous downsizing exposure was presented above. By comparing the effect sizes observed, it is evident that recent exposure (partial $\eta^2=.193$) has a much larger effect on commitment than previous exposure (partial $\eta^2=.002$). Given that the analysis for both hypotheses follows the same experimental design, i.e., between subject effect with the same covariates, a comparison of effect sizes (Lakens, 2013), partial η^2 in this case, is appropriate to determine which exposure to downsizing had a greater impact on commitment. H2 is thus supported.

It is worth noting the marked differences in commitment depending on the downsizing method experienced in the second wave. Once the effect of covariates is controlled for, employees exposed to voluntary redundancies have significantly higher commitment than those exposed to both layoffs and closure of units, and between the latter two, employees exposed to layoffs have greater commitment than those exposed to closures.

Table 5. Descriptive statistics and Post-hoc comparisons using a Bonferroni adjustment (mean differences and significance level shown)

Descriptive statistics (dependent variable: commitment)

	Mean	SD	N
Voluntary redundancies	4.57	0.65	3497
Layoffs	4.04	0.94	1339
Closures	3.38	1.18	1418
Total	4.19	0.99	6254

Post-hoc test results

	Voluntary redundancies	Layoffs	Closures
Voluntary redundancies	4.583*	0.543 $p<.001$	-1.219 $p<.001$
Layoffs		4.040*	0.675 $p<.001$
Closures			3.365*

*Estimated marginal means. Covariates appearing in the model are evaluated at the following values: job level=1.24, tenure=5.42, gender=1.49, age=3.76, country=14.65.

Hypothesis 3 proposed that employees with a double direct exposure to downsizing would have lower commitment than those with other exposure combinations. As part of a preliminary exploration of the data, the overall main effect of combined exposure on commitment on the entire sample was analysed, it was found to be significant and large, [$F(4, 6244)=378.217$, $p<.001$, partial $\eta^2=.195$]. All the covariates, except for country, had significant main effects which was larger for job level (partial $\eta^2=.022$).

H3 was tested on the only group of employees with double direct downsizing exposures, namely those directly exposed to layoffs during the second wave (N=1339). The following downsizing combinations were found in the data: indirect exposure to layoffs followed by direct exposure to layoffs [ILay-DLay] (N=851); direct exposure to layoffs twice [DLay-DLay] (N=404) and direct exposure to closures followed by direct exposure to layoffs [DClos-DLay] (N=84) (Table 6).

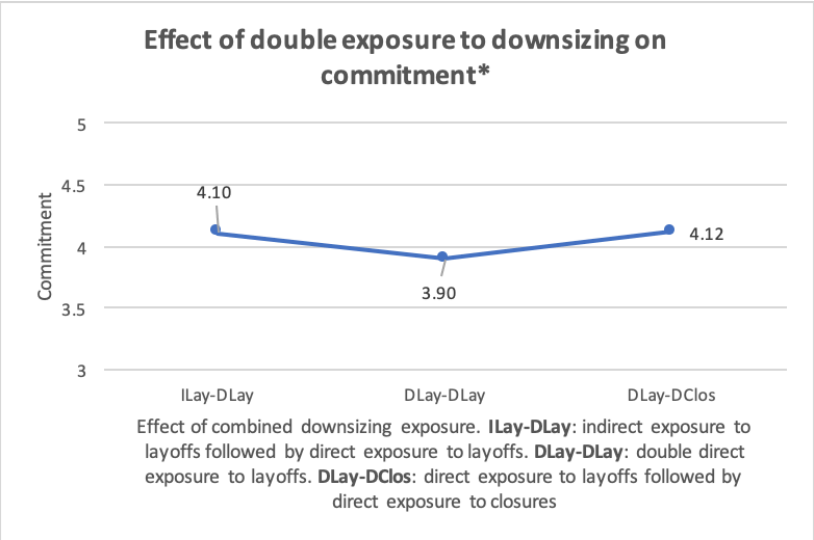
Table 6. Mean values of commitment and SD for subsample H3.

Combined exposure groups	Mean	SD	N
ILay-DLay	4.14	0.86	851
DLay-DLay	3.83	1.06	404
DLay-DClos	4.02	1.03	84
Total	4.04	0.94	1339

We found a significant main effect of combined exposure on commitment for these employees [$F(2, 1331)=6.514$, $p=.002$, partial $\eta^2=.010$]. All covariates, except country ($p=.631$), had a significant main effect which was greater for job level (partial $\eta^2 = .047$).

Special contrasts were used to compare commitment among a) employees with a double direct exposure vs. employees with no double direct exposure (DLay-Dlay and DClos-DLay vs. ILay-DLay) and b) employees in both double direct exposure groups (DLay-DLay vs. DClos-DLay). Results for the first contrast showed no significant differences in commitment among employees with a double direct exposure and employees with a combination of indirect and direct exposure ($p=.15$) However, commitment among employees with a double direct exposure to layoffs was significantly lower than among employees with a DClos-DLay exposure ($p=.043$). H3 was not supported, having a double direct exposure to downsizing does not lead to lower commitment than having a different exposure combination.

However, given that the sample had downsizing exposure combinations that mix different downsizing methods, pairwise comparisons were analysed to uncover group-level commitment differences. We found significant commitment differences given by the type of downsizing method and the nature of the downsizing exposure such that employees with a double direct exposure to layoffs had significantly lower commitment than the other two groups (ILay-DLay and DClos-DLay) (Fig. 1).



*Estimated marginal means with ovariates appearing in the model evaluated at the following values: job level = 1.24, tenure = 5.42, gender = 1.49, age = 3.76, country = 14.65.

4. Discussion

This study addresses the need for more empirical evidence on the long-term effect of downsizing and how multiple downsizing waves affect employees (Moore et al., 2006; Arzuaga and Gandolfi, 2021). We test some of the effects found by Moore and colleagues (2004; 2006), i.e., legacy, recency, and sensitisation, by analysing the impact of two downsizing waves on employee commitment within PharmaTech, a multinational pharmaceutical company that underwent two waves of downsizing between 2006 - 2010.

Commitment among employees directly exposed to one of three downsizing methods, namely voluntary redundancies, layoffs, and closure of units, in the second downsizing wave (late 2008-2010) was analysed considering those employees' exposure to downsizing in the first downsizing wave (2006-mid 2008). We uncovered a significant, but small, negative legacy effect of the first downsizing wave on commitment measured between two and three years after the initial exposure to downsizing. This suggests that past affective events remain in the psychological field of individuals (Lewin, 1943) for a long period of time.

The negative effect of previous downsizing exposure is greater among employees who were directly exposed to layoffs whose commitment is significantly lower than among employees indirectly exposed to layoffs and directly exposed to closure of units. Our results support Grunberg et al.'s (2000) finding that exposure to layoffs has a long-term negative effect on commitment and extends this finding to include exposure to closure of units which has a long-term negative effect on commitment as well.

The well-being perspective discussed above describes downsizing as both an acute and a chronic stressor (Carriger, 2017; Moore et al., 2004). We argue that in the long term, downsizing acts as a chronic stressor with a consistent 'presence' among employees who were exposed to it in the past. Although our study does not allow for a qualitative exploration of the severity of this effect, the fact that it is strong enough to be detectable at least two years after downsizing exposure suggests that organisational support measures ought to be planned with a long-term approach in order to assist downsizing survivors who may remain affected by their previous experience.

Although commitment among employees directly exposed to downsizing in the second wave does differ depending on their first downsizing experience, that effect is negligible when compared to the effect of the most recent downsizing wave. However, there is an important caveat in that the vast majority of employees in our sample (92.2%) had an indirect exposure to downsizing the first time round. Therefore, further empirical studies are necessary to compare the effect of other types of downsizing exposure.

Our findings indicate that the recency effect of downsizing on commitment is large and overpowers the legacy effect. These results coincide with Moore et al.'s (2006) who found that leave intent and depression were more influenced by recent than by past experiences. We posit that the salience of the most recent downsizing exposure prompts individuals into immediate action through adaptation and coping. Therefore, the effect of past downsizing diminishes by comparison. The immediacy of the most recent downsizing contact, which could be seen as an acute stressor, seems thus more significant to commitment outcomes than the trauma of past downsizing exposure. The practical implications for organisations are that strategies to implement downsizing and manage the aftermath should consider the effect of prior downsizing programmes which does not disappear with time, but more relevance should be given to offering support to survivors dealing with the most recent downsizing initiative.

By looking at the effect of the most recent downsizing experience, in this case direct exposure to voluntary redundancies, layoffs, and closures, we also found significant commitment differences among employees depending on the downsizing method they had experienced. Employees exposed to voluntary redundancies had significantly higher commitment than employees exposed to layoffs and closures with the latter having the lowest commitment overall which highlights the need for a nuanced approach to downsizing in which differences between downsizing methods are analysed and accounted for (Arzuaga et al., 2021).

A plausible explanation to reconcile the results observed thus far is that the legacy effect is so small because employees in our sample experienced downsizing twice. That is to say that if employees had been exposed to downsizing only once, its long-term effect could be larger. However, since these employees were also experiencing a recency effect from the second downsizing wave, the interaction between them was such that the effect of the second exposure to downsizing was much stronger than the effect of the first exposure.

Even though the legacy effect is minimal in comparison with the recency effect of downsizing, it is the combination of both that has the greatest impact on commitment after a second downsizing wave. Therefore, the 'current' state of commitment is contingent on the combination of downsizing experiences an employee has had. However, the effect observed was not as anticipated. We predicted that employees with a double direct exposure to downsizing would have lower commitment than employees with other combinations of exposure, but such effect was not found.

Employees with a combination of indirect (first wave) and direct (second) exposure to layoffs did not have significantly different commitment compared to those with a direct double exposure. But since the group with a double exposure was not homogenous as there were employees with a direct double exposure to layoffs and employees with a direct exposure to closures first and to layoffs later, it was necessary to scrutinise the differences between them. Commitment was significantly lower among employees with a double direct exposure to layoffs when compared to both the group with a combination of indirect and direct exposure and to the other double exposure group. We call this effect sensitisation which refers to employees being more sensitive to downsizing when directly exposed to the same method twice.

These results support the vulnerability perspective under certain conditions. Moore et al. (2004) showed that employees with at least one direct exposure to layoffs had worse work affect than those with an indirect exposure. They concluded that the nature of the exposure (direct or indirect) places different demands on employees who react through attitudes or behaviours. However, their study considers only one downsizing method, layoffs. We postulate that it is not the nature of the downsizing contact (direct or indirect) alone what makes a difference to commitment outcomes but the similarity of the experience overall, including the type of downsizing method that employees were subjected to. Differences between the two groups of employees with a double direct contact support the notion that sensitisation is linked to being exposed to the same downsizing method twice.

From a theoretical point of view, our findings add a new dimension to the vulnerability perspective. By analysing the effect of different downsizing methods, we showed that the nature of the downsizing contact does not explain commitment outcomes among employees with a repeated exposure to downsizing. It is the similarity of the downsizing method experienced that leads to weakened work affect. We believe that the premise proposed by Dougall et al. (2000) holds true, i.e., that the degree of similarity between stressor events has an effect on whether resiliency or vulnerability is observed, but unlike them, we argue that greater similarity of downsizing events increases employee stress which manifests through lowered commitment.

From a practical perspective, our results caution against targeting employees for downsizing through the same method twice as they become more vulnerable to its effect. Datta et al. (2010) contend that "frequent downsizing events may alter the parameters of the psychological contract so that downsizing events within a particular firm, (...), may prove less deleterious across time" (p. 339) but this study

shows that the opposite is true, repeat downsizing seems to alter the psychological contract negatively and it remains affected over time.

To summarise, this study demonstrates that previous exposure to downsizing has a significant negative effect on the commitment of employees targeted for reductions but that effect dwarves when compared to the most recent downsizing exposure. Double direct exposure to the same downsizing method has the most detrimental impact on commitment.

5. Conclusion

In order to fully understand the effect of downsizing it is important to explore the persistence of such effect over time and how being exposed to multiple waves of downsizing impacts organisationally desirable attitudes and behaviours. This study shows that both first and second downsizing exposures influence commitment which is contingent on the downsizing method used and the type of combined downsizing contact.

This research expands the scope of existing theory by including closure of units and voluntary redundancies to the analysis of the effect of repeat downsizing which was previously restricted to layoffs. We showed that the choice of downsizing method impacts commitment in the long-term and in the context of multiple downsizing. Furthermore, we proved that using objective criteria to define indirect exposure to downsizing is a relevant and meaningful grouping strategy to understand the effect of workforce reductions, without the issues inherent to using subjective measures and self-reported data. We have corroborated that the effects observed are not country-specific as, unlike previous studies which are mostly set on a single country, this one spans across eight countries and two continents. Similarly, they extend to industries other than manufacturing.

Despite these contributions, this study is not without limitations. First, the naturally occurring combinations of exposure, i.e., that only employees with an indirect first exposure to layoffs had different second exposures and only employees with an exposure to layoffs in the second downsizing wave had different exposures during the first wave, restrict our analysis. Further research should analyse the impact of different combinations of downsizing exposure with special emphasis on direct previous exposures which were missing from our sample. Second, only some combinations of downsizing methods were observed, mostly involving layoffs, as is the case with most of the existing literature. Future studies could look at the effect of multiple exposure to other downsizing methods.

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