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Employee Absence and Organizational Commitment: Moderation Effects of Age

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### Abstract

This study examined the relations of organizational commitment and demographic factors with objectively measured absence frequency data of 106 staff at a UK school, collected over a one-year period. We found significant associations of commitment and absenteeism, with high affective and normative commitment, and low continuance commitment being associated with lower levels of absence. Age moderated two of these associations, with low normative commitment and high continuance commitment predicting absence most strongly for older workers. Our findings help practitioners and researchers to understand how commitment may interact with other factors to predict absence. Interaction effects in our data showed that absence frequencies tended to be highest for older workers who felt a lower sense of obligation to their organization, or a lack of alternatives to their present employment.

### Employee Absence and Organizational Commitment: Moderation Effects of Age

What are the joint effects of demographic factors and job attitudes on employee absence behaviour? In this research study, we examine the joint effects of demographics (gender, age) and organizational commitment on absence in a sample of school employees. Our main contributions are a novel approach to understanding the effects of commitment on absence behaviour, by examining the interaction of three forms of organizational commitment with age, and new data demonstrating the association of psychological attitudinal factors with employee absence, controlling for the effects of demographics.

The importance of the problem of absenteeism at work is underlined by the costs to organizations, around 700GBP per employee per year in the UK for example (CIPD, 2009). Absence is generally conceptualised as withdrawal behaviour at work, alongside other counterproductive behaviours such as lateness or turnover (Harrison, Newman, & Roth, 2006). Absence has been linked with a variety of predictors including personality (Darviri & Woods, 2006), stress and burnout (Schaufeli, Bakker, & Van Rhenen, 2009), attitudes such as commitment and satisfaction (e.g. Harrison et al., 2006; Mathieu & Kohler, 1993; Kohler & Mathieu, 1990), past absence behaviour (e.g. Keller, 1983) and demographic factors such as gender and age (Martocchio, 1989; Rosenblatt & Shirom, 2005; Shirom & Rosenblatt, 2006). In this study we focus specifically on organizational commitment and demographic variables.

The three-component model of organizational commitment (Allen & Meyer, 1990) proposes that people may be committed at work because they feel emotionally

attached to the organization (affective commitment; AC), because they feel a moral obligation to the organization (normative commitment; NC), and because of lack of alternatives (continuance commitment; CC). Research indicates that AC has the strongest negative relationship with absenteeism (e.g. Burton et al, 2002; Meyer, 1997), followed by NC (Meyer & Schoorman, 1992). Somers (1995) reported a non-significant association of absence and CC, but also proposed some interactions of the various forms of commitment. Possible mechanisms linking commitment may reflect some of the core motivational aspects of commitment (e.g. Meyer and Allen, 1991; Wegge, Schmidt, Parkes, & van Dick, 2007). People high on AC and NC might simply feel a greater obligation to adhere to attendance policy and support colleagues by being at work. In our study, we test the simple association of commitment and absence and hypothesize that:

H1: AC and NC will be negatively associated with absence frequency.

The association of CC with absence is less clearly evidenced in the literature. Somers (1995) argued that CC should be negatively related to absenteeism in the same way as AC and NC. However, in his study, there was no direct effect of CC on absence, only an interaction with AC. The nature of the relationship may therefore be better understood by conceptualizing absence as withdrawal behaviour alongside turnover (Mitra, Jenkins & Gupta, 1992). Mitra et al., (1992) argue that there are likely to be a common set of attitudinal factors underpinning both absence and turnover, but that contextual factors may moderate the relationship between them. Commitment may be one such factor, evidence for which can be drawn from literature on job embeddedness. Job

embeddedness is a broad construct with some similarity to CC. People who are embedded in their jobs have more ties to their organization that prevent them leaving, and have been found to be less likely to leave the organization as a consequence (Felps, Mitchell, Hekman, Lee Holtom, & Harman, 2009). It is possible therefore that because people high on CC have few options available to them in respect of finding alternative employment, they are more likely to exhibit absenteeism as a withdrawal behaviour. We therefore hypothesize that CC is positively related to absence at work

H2: CC will be positively associated with absence frequency.

Recently, researchers have focused on the prediction of absenteeism from background demographic factors (e.g. Rosenblatt & Shirom, 2005). Although the relationship between gender and absence is not totally clear (Johns, 2003), a number of studies have reported gender differences (e.g. Wegge et al, 2007; Johns, 1997). Controlling for gender is therefore recommended in studies of absenteeism.

Effects of age have also been the subject of scrutiny, with studies generally reporting that older workers are absent less frequently than younger workers (e.g. Rosenblatt & Shirom, 2005; Kristensen, 1991), however effect sizes are generally weak. One possible explanation for weak effects is that age interacts with attitudinal variables such as commitment to influence absence behaviour. We have argued two points in respect of commitment and absence behaviour. One, that absence is more likely for those with low AC, and NC, and high CC, and two, that absence is potentially an alternative withdrawal behaviour to turnover for people who are more firmly embedded in their jobs.

Hall and Mirvis (1995) argued that older employees are more likely to be firmly established in their roles, and may be less inclined to leave the organization. Although we did not assess turnover intentions in our study, we can examine whether commitment is related differently to absence for older versus younger workers. We therefore cautiously hypothesize that:

H3: Age will moderate the relationship between commitment and absence frequency. Specifically, all three forms of commitment will be more strongly associated with absence for older workers compared with younger workers.

A final issue we examined in our study was the relative importance of demographic variables and organizational commitment. Although we did not set hypotheses, we expected that commitment would predict absence above and beyond gender and age.

In the present study, we tested our hypotheses in a sample from a single UK school, amongst staff working in a variety of roles. The single-organization design removed potential confounds arising from participants working in different organizational contexts. Following Shirom and Rosenblatt (2006), we operationalized absence as the number of incidences of absence within a one-year period (i.e. absence frequency). There is debate about the most effective way to operationalize absence in the literature, with some studies (e.g. Shirom & Rosenblatt, 2006) arguing that absence frequency measures avoid confounding effects of outlier employees with long-term absence recorded due to illness, and others (e.g. Darr and Johns, 2008) arguing there is

little real underlying difference. Accurate records were kept by the participating organization on absence frequency, which we deemed acceptable for our study.

## Method

### *Participants*

Participants were a sample of 106 employees at a UK secondary school (71% female). Participants worked in a variety of job roles; senior leadership team (N=5); senior teachers (N=24); teachers (N=43); teaching assistants (N=20); technicians (N=7) and other support staff (N=7).

### *Measures*

#### *Organisational Commitment*

Organisational commitment was measured using Allen and Meyer's (1990) three scales measuring AC (e.g. This organisation has a great deal of personal meaning for me;  $\alpha = 0.96$ ), NC (e.g. This organisation deserves my loyalty;  $\alpha = 0.95$ ), and CC (I feel that I have too few options to consider leaving this organisation;  $\alpha = 0.75$ ). Respondents are required to indicate the extent to which they agree with items along a seven-point scale, ranging from 1 (strongly disagree) to 7 (strongly agree).

#### *Age*

Age was measured using self-report, with participants indicating which one of 10 age groups applied to them. This method was considered less personally intrusive compared to requesting exact ages. The age groups and numbers of participants in each

were: under 21, 0; 21-25, 5; 26-30, 13; 31-35, 20; 36-40, 22; 41-45, 19; 46-50, 11; 51-55, 7; 56-60, 7; over 60, 2.

We acknowledge that the grouping of age intervals in this way loses some discriminatory detail compared to continuous age data. However, with the exception of the “under 21” response (for which there were no respondents) and the “over 60” response<sup>i</sup>, the age groups partition age in years into equal interval ranges, and so we deemed our data to be at the interval level and suitable for including in our regression analyses.

### *Measuring Absence*

Objective absence data was obtained from organisational records regarding absenteeism. This was calculated as the number of absence ‘spells’ or incidences during a specific period covering one academic year. Absence was recorded by the organization through a procedure by which employees were required to telephone an ‘absence phone line’ to indicate that they would not be attending work. A single absence incidence (i.e. a frequency count of 1) was recorded if non-attendance ran over consecutive days for the same reason. We examined only absence resulting from illness, and there was no distinction made in the data records about whether this absence was self- or medically-certified.

### *Procedure and Design*

The study design was cross-sectional, with commitment data collected at the same time as accessing retrospective absence records. Although the cross-sectional nature of the study is a potential limitation of our methodology (as one would ideally assess commitment at the beginning of the absence recording period), we felt that the

opportunity to test our hypotheses in a single organization that kept effective objective absence records, and therefore the strengths of the data collected, outweighed these disadvantages. We return to this point in the discussion of our findings.

All members of staff from the school were contacted personally by the second author, and assured that participation was voluntary and data were confidential within the research team (i.e. other employees or school leaders would not see participant survey data). Surveys were returned to the second author, who then accessed electronic absence records held at the School. This accessing of records was performed independently of school administrators.

## Results

Descriptive statistics and correlations of the variables in the study are shown in Table 1. AC and NC are both correlated negatively with absence frequency, but neither age nor CC are significantly correlated with absence frequency.

The results of our regression analyses are shown in Table 2. We followed procedures recommended by Aiken and West (1991) to test moderation effects.

Neither age nor gender were significantly associated with absence in the first step of the regression. Organizational commitment predicted markedly beyond these demographic variables in step 2, as expected. The beta coefficients in step 2 of the regression provide good support for hypotheses 1 and 2. AC and NC were both negatively and significantly associated with absence (respectively  $\beta = -.39$ ,  $t = -2.96$ ,

$p < 0.01$ ;  $\beta = -.48$ ,  $t = -2.65$ ,  $p < 0.01$ ). CC was positively associated with absence ( $\beta = .44$ ,  $t = 3.48$ ,  $p < 0.01$ ).

Examining the interaction effects, age x CC was significant ( $p < 0.01$ ) and age x NC was marginally significant ( $p = 0.053$ ), therefore partially supporting hypothesis 3. These effects are explored in simple slopes (Figure 1). We tested slopes at -1 and 1 standard deviation values of moderator (age) to test the differences in slopes for younger and older workers. For both NC and CC the slopes were significant for older workers (respectively  $b = -2.35$ ,  $t = -2.87$ ,  $p < 0.01$ , and  $b = 2.08$ ,  $t = 4.00$ ,  $p < 0.01$ ), but not younger workers (respectively  $b = 0.04$ ,  $t = 0.05$ ,  $p = ns$ , and  $b = 0.19$ ,  $t = 0.30$ ,  $p = ns$ ). Consistent with Hypothesis 3, NC and CC are associated with absence frequency for older workers, but not younger workers.

### Discussion

Our analyses provided good support for our hypotheses. The three forms of commitment were related to absence in the ways predicted, and were markedly more strongly associated than gender and age alone.

Affective (AC) and normative commitment (NC) were both negatively related to absence, and continuance commitment (CC) was positively related to absence. Why might these relations occur? With respect to AC and NC, these relationships may emerge because a greater sense of obligation to be present at work. The feeling of stronger attachment and obligation to the organization may mean they are less likely to decide to be absent, particularly if the situation affords them some choice. For example, in a situation in which employees have decision latitude about whether to be absent or not (for

example in the case of mild illness), people who are higher on AC and NC, may feel a stronger obligation and motivation to attend work.

An alternative pathway may be that AC and NC represent potential buffers in the stress-strain relationship (Meyer & Maltin, 2010) and so high commitment may protect against experiencing negative consequences of stress, resulting in less frequent absence. Further research should examine these pathways and aim to clarify the mechanisms underlying the relationships we report here.

With respect to CC, our findings may reflect the nature of absence as withdrawal behaviour. We proposed a position similar to Mitra et al (1992), that absence can be seen as withdrawal behaviour alongside turnover, with a common set of attitudinal antecedents. Given that people high on CC feel it is difficult to leave the organization, they are perhaps more likely to exhibit absenteeism as a withdrawal behaviour and may see turnover as a less viable alternative.

We also tested the moderating effects of age. We proposed that because older workers are more likely to be embedded, established and stable in their job roles, they are likely to see absence as a viable withdrawal strategy compared to, for example, turnover. Older workers could be more likely to be committed to remaining in a particular geographical location, for example because of family, children, or financial issues. We hypothesized stronger associations of commitment and absence for older workers. Our findings confirmed moderation for NC and CC with absence. Our simple slopes tests indicated significant betas for absence with NC and CC for older workers, but not for younger workers partially confirming hypothesis 3. There was no such moderation for

AC. Feeling an emotional attachment to the organization seems to be associated with absence in the same way for older and younger employees.

Our findings shed important light on how commitment interacts with other factors to predict absence. Based on our data, when we consider commitment and age, it appears that feeling a low sense of obligation to the organization (low NC), or a lack of alternatives (high CC) specifically for older workers, represent the conditions under which absenteeism is most likely.

Some of our interpretations of these findings around CC and interactions with age conceptualize absence alongside turnover as withdrawal behaviour. These points are speculative at present, and a logical next step is therefore to examine differential prediction of absence versus turnover for older versus younger workers.

One limitation of our study is the sequence of data collection. We collected measures of commitment at the end of the absence reporting period rather than at the start, reflecting the nature of the data available to us. Although we believe that the strengths of the data outweigh the limitations, cautious interpretation of our findings is warranted, with the logical next step being a prospective replication, which as highlighted above, could also include measurement of turnover to explore relations of commitment with absence and turnover for older and younger employees.

### Final Comments

This study examined the relations of organizational commitment with absenteeism among staff at a UK school. The findings indicated that commitment was an important

predictor of absence in this organization, with people higher in AC or NC, or lower on CC tending to demonstrate lower levels of absence. NC and CC appear to predict absence most strongly for older workers. Organisations often employ strategies to monitor and tackle absenteeism, tending to focus on addressing the behaviour of those for whom absence has become excessive or chronic. Our findings suggest that focusing on job attitudes such as commitment, and creating positive and rewarding work environments, to which people feel committed, may have a broader effect on the absence behaviour of employees.

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## Tables

Table 1.

Descriptive statistics and correlations of variables in the study.

|                                   | Mean | SD   | $\alpha$ | 1   | 2      | 3      | 4    |
|-----------------------------------|------|------|----------|-----|--------|--------|------|
| 1. Age <sup>a</sup>               | 5.37 | 1.93 |          |     |        |        |      |
| 2. Affective Commitment           | 4.04 | 1.93 | 0.95     | .09 |        |        |      |
| 3. Normative Commitment           | 3.60 | 1.89 | 0.96     | .03 | .79**  |        |      |
| 4. Continuance Commitment         | 3.41 | 1.32 | 0.75     | .03 | .51**  | .77**  |      |
| 5. Absence Frequency <sup>b</sup> | 3.86 | 3.23 |          | .16 | -.53** | -.45** | -.13 |

\*\*p<0.05; <sup>a</sup>Age Groups (1=under 21, 2 = 21-25, 3 = 26-30, 4 = 31-35, 5 = 36-40, 6 = 41-

45, 7 = 46-50, 8 = 51-55, 9 = 56-60, 10 = over 60); <sup>b</sup>Absence Frequency = number of

incidences of absence due to illness in the reporting period.

Table 2.

Moderated regression analyses of absence on affective, normative, and continuance commitment.

| Predictor          | Standardized Betas (DV = Absence spells due to illness) |      |         |         |         |         |
|--------------------|---|------|---------|---------|---------|---------|
|                    | $\beta$   | $t$  | $\beta$ | $t$     | $\beta$ | $t$     |
| Age                | .18   | 1.88 | .21     | 2.64*   | .18     | 2.36*   |
| Gender             | .15   | 1.54 | .02     | 0.28    | -.00    | -0.02   |
| AC                 |   |      | -.39    | -2.96** | -.39    | -2.95** |
| NC                 |   |      | -.48    | -2.65** | -.36    | -1.95   |
| CC                 |   |      | .44     | 3.48**  | .35     | 2.74**  |
| Age x AC           |   |      |         |         | .05     | 0.29    |
| Age x NC           |   |      |         |         | -.39    | -1.96†  |
| Age x CC           |   |      |         |         | .29     | 2.39*   |
| R                  | .22   |      | .64**   |         | .67**   |         |
| Adj R <sup>2</sup> | .03   |      | .38**   |         | .41**   |         |
| $\Delta R^2$       | .05   |      | .36**   |         | .05*    |         |

Notes. AC = Affective Commitment, NC = Normative Commitment, CC = Continuance Commitment.

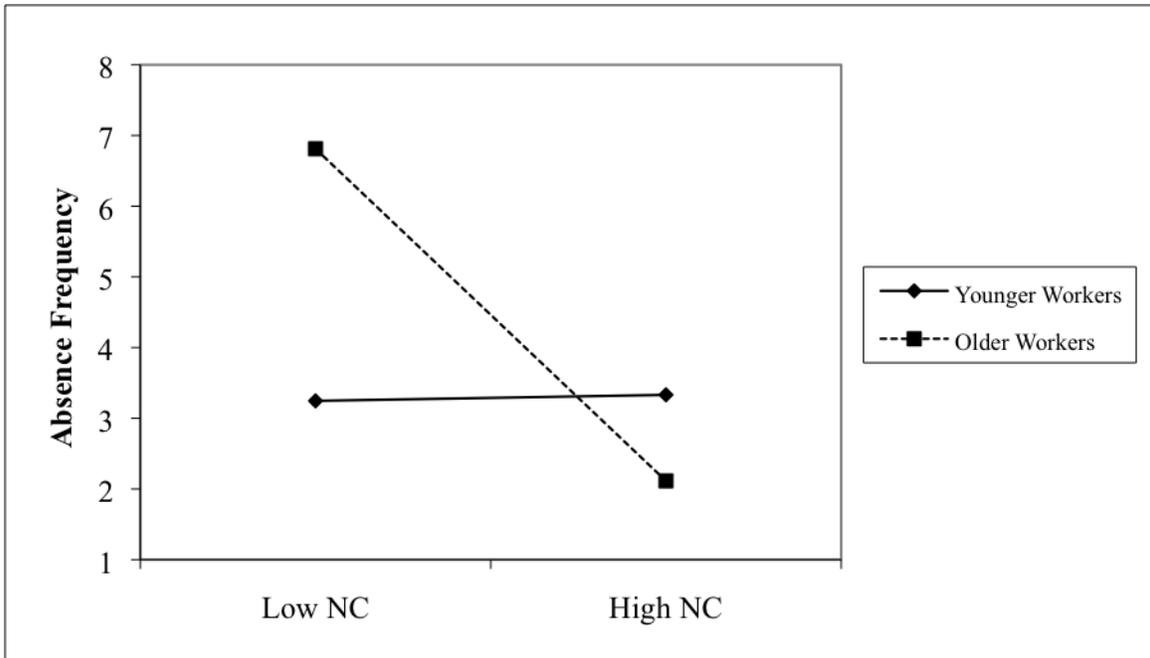
\* $p < 0.05$ ; \*\* $p < 0.01$ ; † $p = 0.053$

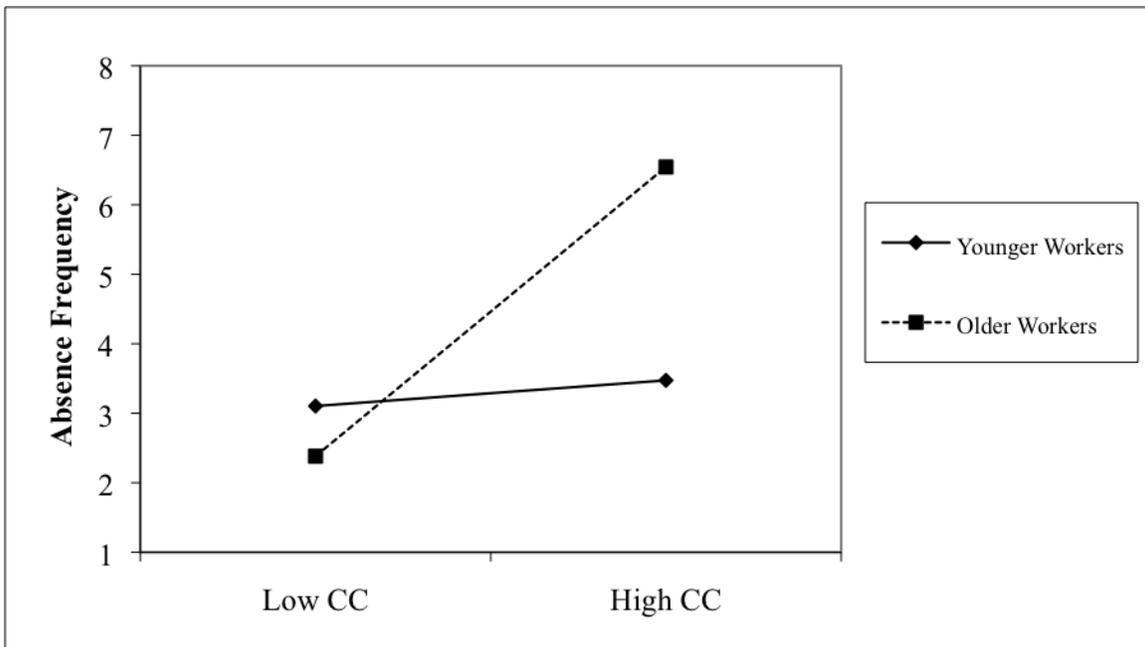
Figures

Figure 1. Simple Slopes Graphs of Interaction Effects

Panel A. Age x Normative Commitment

Panel B. Age x Continuance Commitment





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<sup>i</sup> Note also that retirement age in the UK is generally <65, so it would be unlikely that the 2 participants in that category were above 65.