INNOVATIVE BEHAVIOR, EMOTIONAL COMPETENCIES, AND EXPERIENTIAL LEARNING

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INTRODUCTION

This paper asks two questions: 1) whether sandwich work placements are useful for the development of emotional and social competencies (ESCs) among undergraduate students; and, 2) whether the development of ESCs promotes among undergraduate students innovative behavior (IB), a type of work behavior that is increasingly expected from employees at all levels in many industries and sectors (Scott & Bruce, 1994). Although we occasionally discuss specific emotional competencies, we develop and test theory at the level of clusters of ESCs (Boyatzis, Goleman and Rhee,1999). Specifically, we focus on the self-management, and relationship management ESCs clusters.

ESCs and Innovative Behavior

Indispensable to the creative process and, therefore, to innovative behavior, is the ability to persevere despite the lack of clear criteria for solutions (Csikszentmihalyi, 1988) and the ability to focus on the task at hand (Rank & Frese, 2008). Because emotions tend to direct the focus of attention away from the task and toward the circumstances of the affective experience (Beal, Weiss, Barros, & MacDermid, 2005), *emotional self-control* (self-management cluster), which is defined precisely as an individual's capability to minimize this kind of disruptions to task performance, should be relevant to creativity. Likewise, emotional self-control, should have a positive effect also on the implementation of new ideas, as this activity may be beset by worries about anticipated resistance, and anger resulting from setbacks, and criticism.

As to the implementation dimension of innovative behavior, one can expect that the more ambiguous a goal is, the more difficult it is to identify means for achieving it, or to specify when the goal has been reached (Beach et al., 2014). For this reason, we can further expect that people endowed with an *inspirational leadership* competence (also referred to as *visionary leadership* in

earlier work on emotional competencies (Goleman, 2000)), being better able to articulate a vision will facilitate the development of plans for themselves and for co-workers.

We therefore argue for the relevance of ESCs for the planning component of the implementation of novel ideas. Furthermore, ESCs in the relationship management cluster, such as influence, inspirational leadership, and conflict management matter for the promotion and championing of ideas to others, as all of them help overcome other people's resistance and make those tasks easier for the innovator. On account of all the above, we posit:

Hypothesis 1a: The possession of a portfolio of self-management competencies is positively associated with students' innovative behavior.

Hypothesis 1b: The possession of a portfolio of relationship-management competencies is positively associated with students' innovative behavior.

Sandwich Work Placement and ESCs Development

Experiential learning requires much more than the apprehension of direct experiences: it also requires reflection, abstract conceptualization about experiences, the drawing of implications for action, and their subsequent testing in active experimentation (Kolb, 2015). Students are often required by their work placement programs to perform an audit of their own skills, also including emotional competencies such as teamwork and leadership; to formulate a personal development plan based on the findings from the audit; to complete a daily log of reflections on placement experiences; and to deliver assessed presentations that center on learning experiences and critical incidents during the placement year. These practices help students complete the learning cycle, thereby creating knowledge in a variety of domains. Critically, in sandwich work placement, this recursive process is allowed to continue long enough for learning to also occur in the emotional domain. Indeed, a systematic review of existing research found some support for the efficacy of emotional intelligence (EI) development programs, but suggested that improvement requires a sustained effort, extending beyond the two-day block intensive format of many EI programs (Kotsou et al., 2019). It also revealed that the longest of those programs (13 weeks) are much shorter than the typical sandwich work placement. For all these reasons we posit:

Hypothesis 2a: Having a sandwich work placement allows students to increase their self-management competencies

Hypothesis 2b: Having a long- sandwich work placement allows students to increase their relationship-management competencies

Educators in the field report that when students return from placement, they not only tend to perform academically at a higher standard, but also exhibit various behavioral improvements, such as greater self-confidence (Jones et al., 2017). All this suggest that the impact that sandwich work placements can make on ESCs is non-negligible. Therefore, we expect that the changes in ESCs brought about by a sandwich work placement will be sufficient to make a significant

impact on innovative behavior, for the same reasons that were laid out in the lead to hypotheses 1a and 1b. Therefore:

> **Hypothesis 3a**: An increase in self-management competencies brought about by a sandwich work placement taken is positively associated with students' innovative behavior
>
> **Hypothesis 3b**: An increase in relationship-management competencies brought about by a sandwich work placement taken is positively associated with students' innovative behavior

ESCs Endowment and ESCs Development

In processes of resource or competence accumulation, it is very often the case that the pace of accumulation depends on the level of the stock itself (Dierickx & Cool, 1989). The literature on emotional intelligence provides evidence that this feature of capability development, that has been observed at the organizational level, also holds true at the individual level. Indeed, a review on the effectiveness of emotional intelligence intervention studies found that lower levels of baseline emotional intelligence correspond to greater improvements (Kotsou et al., 2019). Other studies also found that intervention participants with a high initial level of emotional intelligence may not even experience significant changes (Kruml & Yockey, 2011). For these reasons we expect that over the course of a sandwich placement students with initial high levels of ESCs will show smaller improvements in those competencies.

> **Hypothesis 4a:** the higher the initial endowment of the students' self-management competencies prior to the third year of their undergraduate studies, the lower the change of those competencies that can be achieved in any subsequent period
>
> **Hypothesis 4b:** the higher the initial endowment of the students' relationship-management competencies prior to the third year of the undergraduate studies, the lower the change of those competencies that can be achieved in any subsequent period

Sandwich Work Placement and Innovative Behavior

Work placements foster not only emotional development but cognitive development as well. Work placements introduce students to facts and skills that are directly relevant to their major, and serve as a catalysts for deeper investigation into topics that were only given limited attention in class (Parilla & Hesser, 1998). As knowledge is a key component for creativity (Amabile, 1996) the cognitive learning from internships should be positive for the improvement of innovative behavior.

Work placements have also been found to help developing soft skills (other than emotional competences), such as time-management, and communication skills (Mihail, 2006). In turn, these should facilitate the processes of planning and of promotion and championing of ideas

to others. For all these reasons we expect that sandwich work placements will promote innovative behavior directly, besides promoting it through its effect on ESCs development.

> **Hypothesis 5**: Having a sandwich work placement is positively associated with students' innovative behavior

SAMPLE AND DATA COLLECTION

The present study was conducted with students who were initially approaching the end of the second year of their undergraduate studies in various fields of business administration at a business school in the United Kingdom. At that institution, every year around 40 percent of students have an opportunity to spend the third year of their degree course on a sandwich placement with some business firm, while the other students in their cohort spend that year in a more traditional, classroom-based educational program, referred to as the "Full-time program".

This educational arrangement allows conducting a quasi-experiment, in which one group of subjects is "treated" with an experiential learning opportunity that is highly relevant to their studies, while a "control" group of subjects learn through more standard modes of educational delivery. In March 2020 (i.e., about three months before the start of the sandwich placements) we performed a first-wave survey of the students, through two self-administered online questionnaires. One of these collected baseline scores (the "pretest") for the outcome of interest, as well as demographic-, behavioral- and attitudinal information that was not already available from archival data. The other collected scores on ESCs. Then, in March 2021, when the cohort had completed about three quarters of their sandwich placement, we administered again two questionnaires: one to collect scores on the outcome variable (the "posttest") and other auxiliary information, and the other on ESCs.

The sample comprised 63 students enrolled in a full-time program, and 64 who participated in the sandwich long-term placement, including 77 females and 50 males, with an average age of 21.6 years. A series of chi-square tests and of z-tests of proportions revealed that the sample and the rest of the sampling framework do not differ systematically in terms of various demographics, such as subject area, age group, socioeconomic status, ethnicity, and disabilities. However, those tests also revealed that women and students who entered the university with A-level qualifications are somewhat overrepresented in our sample, their respective proportions being 29 percent and 12 percent higher than among non-respondents.

Variable Coding Procedures

All scales were adapted from the extant literature to maximize the validity and reliability of the measurement model.

Innovative Behavior. In line with Scott and Bruce (1994) we measured innovative behavior on a five-point verbal-rating scale comprising six items about the search and generation of new ideas, the promotion and championing of those ideas, and their implementation.

The variable *Innovative Behavior* (IB) is based on the scores collected in the second-wave survey (i.e., at t_2), and it is the main endogenous latent variable in our model, whereas the variable *Innovative Behavior-pretest* (IB-pre) is an exogenous latent variable measured through the same items in the first-wave survey (i.e., at t_1).

ESCs. To measure 12 ESCs we used the ESCI-U inventory, which has been shown by various studies to meet psychometric standards of reliability as well as convergent and discriminant validity (Boyatzis et al., 2015). The items in the inventory asked respondents to assess the frequency of behaviors on a 5-point scale ranging from "Never" to "Consistently". For each competency, we constructed an index by averaging out all items related to it. Then, we employed those indices in a Partial Least Squares structural equation model, as indicators of latent variables corresponding to the clusters of ESCs. The variables *Self-Management Competencies-pretest* (SM-pre) and *Relationship Management Competencies-pretest* (RELM-pre) are latent variables that use the scores of their respective items as measured at t_1. The variables *Self-Management Competencies Change* (SM-chg) and *Relationship Management Competencies Change* (RELM-chg) are also latent variables, which use the difference between the t_2 score and the t_1 score of their respective indicators to calculate the variation in competence that occurred during the 12-month period between the two surveys.

Placement. This variable identifies our treatment and control groups. It was coded as 1 for students enrolled in academic programs that sandwich a 12-month work placement between the second and the final year of their studies, and 0 for students enrolled in a traditional academic-only degree course.

Control variables. To control for demographic heterogeneity between students of the two groups, we used the variables *Age*, the dichotomous variable *Female*, a binary indicator of *Disability*, a binary indicator of challenged social background (*Widening participation*), and one of possession of *A-level qualifications*.

Hypotheses Testing Results

The results for the measurement model (indicator reliability, internal consistency reliability, convergent validity, and discriminant reliability) were satisfactory and suggested that it was appropriate to proceed with the evaluation of the structural model.

The empirical analysis provided support for most of the hypothesized relationships specified in the model. As shown by R-square values, the model explained 53.6% of in-sample variation in post treatment innovative behavior thus suggesting that the model has at least a moderate explanatory power (Hair et al., 2011). The model had a lesser, though non-negligible power to explain the change in self-management competencies (22.2%) and in relationship management competencies (22.4%).

SM-pre had a positive and significant effect on innovative behavior ($\beta = .175$, $p = .020$) and therefore H1a is supported. RELM-pre also had a positive and significant effect on innovative behavior ($\beta = .357$, $p = .000$), which constitutes support for H1b.

Placement had a positive and significant effect on the change of self-management competencies ($\beta = .141$, $p = .042$). Hence H2a is supported. In contrast, the effect of Placement on the change of relationship management competencies was assessed as being positive but non-significant ($\beta = .017$, $p = .420$). Thus, H2b was not supported.

In turn, the change of self-management competencies that occurred during the one year between the first and the second wave of the survey, had a positive and significant effect on innovative behavior ($\beta = 0.272$, $p = 0.000$), and so had the change in relationship management competencies ($\beta = 0.196$, $p = 0.020$). These two findings constitute support for H3a and H3b, respectively.

The initial endowments of ESCs, were also found to have the expected relationships with their respective change variables: SM-pre had a negative and significant effect on SM-chg ($\beta = -0.447$, $p = 0.000$) and RELM-pre exhibited a negative and significant effect on RELM-chg ($\beta = -0.474$, $p = 0.000$). Hence, H4a and H4b were supported.

Finally, Placement had a significant and positive effect on innovative behavior ($\beta = 0.136$, $p = 0.029$), which constitutes support for H5. It is to be borne in mind that Placement also indirectly affects IB by affecting changes in ESCs. The total effect of Placement on innovative behavior ($\beta = 0.177$, $p = 0.007$) is somewhat larger than the direct one, with the ratio of indirect to direct effect being 0.31.

DISCUSSION AND CONCLUSIONS

This study argued, and empirically demonstrated that ESCs associate with individual innovative behavior. We did so in the context of business students who are reaching the end of their undergraduate studies. Such a context owes its relevance to the fact that while innovative behavior goes beyond prescriptive job requirements, it is no longer considered merely discretionary (Kwon & Kim, 2020). Therefore, being able to propose and apply novel and improved ideas, processes, practices, and policies aimed at organizational effectiveness is becoming increasingly important for employability and career success.

Given the importance of ESCs as a determinant of outstanding performance, and a correlate of innovative behavior, it is important to find ways to develop them in current and prospective employees. A significant number of studies have dedicated themselves to investigate whether, and under what conditions, emotional intelligence development interventions are effective (see Kotsou et al. (2019) for a review). However, the vast majority of these studies seem to have focused on relatively short-term interventions (lasting less than 15 weeks, and often as little as a couple of hours), which are often based on workshop or course formats. Our study demonstrates that an existing educational practice—sandwich work placements—also has a positive impact on ESCs (on self-management ESCs).

Knowing that work placements help develop ESCs, it is a task for educational researcher to understand how to design work placements in such a way as to also maximize their potential in this respect. For example, future research will have to establish which placement jobs contribute the most to the development of which cluster of ESCs, much like human resources research has investigated the relationship between job assignment and management development (Dragoni et al., 2009). It will be the task of sandwich work placement program directors to focus the work placement process more explicitly on ESCs development. For example, by focusing pre-placement skill audits not only generically on soft skills, but also on those skills that enable students to manage their, and other people's emotions.

REFERENCES AND TABLES AVAILABLE FROM THE AUTHORS