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WHAT IS THE ROLE OF LOCUS OF CONTROL IN RESPONSES TO REMOTE JOB OFFERS? A HIGH-POWERED STUDY OF UNEMPLOYED PARTICIPANTS IN RETRAINING COURSES

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Limited number of studies have explored role of locus of control (LoC) in job search. In this study, involving over fourteen thousand participants enrolled in retraining courses, we examined the role of LoC in individuals' responses to a hypothetical job offer located 100 km away from their current place of residence. Results indicated that internal locus of control predicted a positive response to the job offer and the tendency to seek additional information about the job offer. In addition, the internal locus of control predicted worries and the automatic rejection of job offers negatively. Conversely, the external locus of control predicted worries and a tendency to reject job offer positively and engagement in further seeking of information and positive reactions to job offer negatively. However, the size of the effects was small, indicating a need to continue the search for predictors of the reaction to the job offer. Neither type of locus of control was found to be associated with seeking advice from friends or family.

Keywords: LoC, internal LoC, external LoC, job search, unemployment

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INTRODUCTION

The concept of locus of control (LoC), which refers to individual beliefs about the causal relationship between one's actions and their effects on one's life, has been studied for seven decades. Moreover, in recent years, there has been a resurgence of interest in this construct, as researchers have recognised its importance and potential for further exploration. For instance, Galvin et al. (2018, p. 4) called for "renewed consideration of the LoC as an independent construct and increased vigour in extending its theory and nomological network", and the Google Scholar search engine indicates more than 36,000 resources in the last 5 years alone. However, despite this extensive research literature, little is known about how LoC influences the decisions of unemployed people. In particular, what role does LoC play in refusing a job offer, feeling worried, seeking advice, searching for more information, and responding positively to an offer far away from their place of residence? We aimed to answer these research questions in the present study. First, we will review the concept of LoC and its dimensions, then discuss previous research on LoC among the unemployed, and provide an overview of the present research.

Locus of control (LoC)

LoC is a measurement of individual beliefs regarding the causal relationship between one's own efforts and their consequences on life (Rotter, 1966; Preuss & Hennecke, 2018). It is a concept that refers to a generalised expectation about the extent to which reinforcements are under internal or external control. People with an 'internal' LoC believe that reinforcements are largely determined by personal effort, ability, and initiative (Rotter, 1966). Such individuals may come to believe that outcomes are generally in line with the effort put into them, so they tend to work harder when engaged in important tasks (Lefcourt, 1991). On the other hand, individuals with an 'external' LoC believe that reinforcements are primarily determined by other people, social structures, luck, or fate (Rotter, 1966; Heinström, 2010).

LoC in an organisational context is conceptualised through two factors: personal and political control (Mirels, 1970; Coombs & Schroeder, 1988; Ferguson, 1993), which correspond with internal and external LoC.

Personal control represents the extent to which individuals believe they have control over their personal outcomes and experience at work (task accomplishment, career advancement, and job satisfaction). On the other hand, political control refers to the perception of control over work outcomes that are

influenced by external or organisational factors, such as policies, procedures, and management decisions (Ferguson, 1993). The two-dimensional explanation provides a framework for researchers to explore how personal (internal) and political (external) dimensions of control explain different outcomes, employees' approach to work, both attitudinally and behaviourally.

LoC is often conceptualised as one of the indicators of core self-evaluation, a multidimensional construct (Bono & Judge, 2003; Judge et al., 1997, 1998), where emotional stability/non-neuroticism, generalised self-efficacy and self-esteem are included alongside LoC (Chang et al., 2012). The concept of *core self-evaluations* was first defined by Judge et al. (1997, 1998), in an effort to understand the dispositional sources of job satisfaction. It can be understood as "fundamental, subconscious conclusions individuals reach about themselves, other people, and the world" (Judge et al., 1998, p. 18). Despite leading to many inspiring findings (see, e.g., Chang et al., 2012 for a review), such a synthesising approach has its limitations. For example, in their review, Galvin et al. (2018) claim, inter alia, that the current findings point to a unique role of LoC instead. They also point out that important theoretical and empirical aspects are overlooked when LoC is analysed together with the other dimensions of the core self-concept. The fact that specific variance associated with this variable is considered unimportant within the superordinate factor may serve as an example. Furthermore, according to some authors, LoC is more an evaluation of the environment and external rewards than an evaluation of one's self (Johnson et al., 2015). Several studies on factor structure are in line with these objections (Johnson et al., 2015; Johnson et al., 2011, 2016), as are studies that aim to examine the pattern of relationships with other variables or the conceptual analysis of the construct itself (Chang et al., 2012; Johnson et al., 2008).

Therefore, we will focus on LoC as a two-dimensional stand-alone variable that plays a potentially important role in the context of unemployment and job search, rather than focusing on the broader multi-dimensional construct of core self-evaluation in the present research.

LoC in the context of work, unemployment, and job search

The role of LoC in the context of work has been a significant topic for many researchers, such as Ng et al. (2006), Judge & Bono (2001), Kanfer et al. (2001) and Spector (1982), to name a few influential classic studies. In fact, LoC is associated with several professional outcomes such as job performance, job satisfaction and willingness to work, and it is also important in explaining employees' approach to work, both in terms of

attitude and behaviour. However, there is some merit in examining the LoC specifically in unemployed individuals. For example, although the LoC is considered to be a relatively stable variable (Bono & Judge, 2003; Galvin et al., 2018), it turns out that the LoC is the result of activity in the labour market. In particular, losing one's job is an event that can have a significant impact on one's beliefs. This is because it has not only short-term effects but also long-term consequences in terms of the control of the individual.

Previous studies indicated that young people who were unemployed for a long time had increasing levels of external LoC and feelings of helplessness (Goldsmith et al., 1995). Similarly, being out of work for a long time can make a person feel more powerless and unable to influence their situation (Legerski et al., 2006). In fact, Ross and Mirowsky (1992) found that employed people reported higher levels of control than the unemployed or people exposed to intermittent work. Waters and Moore (2002) stated that the long-term unemployed had lower levels of internal control beliefs. They pointed to the finding that a high level of 'internal control' affects the ability to find employment, and a lack of 'internal control' is associated with persistent unemployment.

External LoC has also been found to reduce an individual's job-seeking efforts (Caliendo et al., 2015). Studies also indicate that people who believe they can influence their outcomes are more likely to find a new job and spend less time out of work (see, e.g., Gallo et al., 2003). Unemployed people with internal LoC are willing to put in more effort and look for higher-paid jobs because they are aware of the skills associated with the LoC, which, as econometricians see it, makes them more desirable in the eyes of employers than unemployed individuals with lower levels of internal LoC. Subsequent studies (Caliendo et al. 2015; McGee, 2015) have also shown that internal LoC is associated with the job-seeking efforts of the unemployed. Unemployment has significant psychological consequences for young people, leading to more negative mood, lower self-esteem and higher depressive affect compared to their employed counterparts. On the other hand, researchers have not found the predicted difference between the employed and unemployed in the locus of control (Tiggemann & Winefield, 1984).

McGree and McGree (2016) found that individuals with an internal LoC search for jobs more intensively because they believe that their efforts will lead to a job offer. They expect offers to depend on their efforts, unlike individuals with a lower internal LoC. An important framework in the context of LoC, work, and unemployment (Kafner et al., 2001) refers to job search behaviour, which was significantly and positively related to finding employment. Moderator analyses showed sig-

nificant differences in the magnitude of the variable relationships for the type of job search measure (effort vs. intensity) and sample type (job loser vs. employed job seeker vs. new entrant). From a theoretical perspective, such a pattern of results is in line with the model of Caliendo et al. (2015) which posits that each person has a belief about the impact of job search effort on job offer arrival rate, which depends on the extent to which an individual has an internal locus of control. The impact of unemployment on an individual's psychological health is an important part of the research and is significantly related to the LoC. Feather and O'Brien (1986) state that unemployment led to a decrease in perceived competence, activity, and life satisfaction, as well as an increase in depressive affect. The study was conducted on large samples of young Australian school leavers over a two-year period, providing robust evidence of the impact of unemployment on psychological well-being.

Overall, these pioneering findings indicate the need to further examine the LoC in the context of the unemployed, particularly in the broader context of job search. However, little is known about how people respond to a new job offer that requires them to relocate, and what role the LoC plays in the initial response to such an offer. As many job offers are located far from the current residence, and different factors including the LoC can influence the initial response and the later decision to accept or reject the offer, this gap in the literature calls for further investigation. Belgium, Estonia and the Slovak Republic have the largest disparities between metropolitan regions and rural regions (OECD, 2022). The main reason for regional disparities is the combination of low economic growth and job creation in the eastern and central parts of the country and insufficient labour mobility to the west, in particular for low-skilled workers (see more Demmou et al., 2015). Furthermore, research addressing the role of the LoC in retraining courses is absent. This is unfortunate, as retraining courses are important for job search and career development. Retraining centres also provide a unique opportunity to work with the target group for research and interventions, as retraining courses may provide a more controlled and representative environment to assess the effects of the LoC on different outcomes, and may be efficient in implementing different interventions aimed at the unemployed population.

THE PRESENT RESEARCH

Building on the research line documenting the role of LoC in the field of work (Ng et al., 2006; Judge & Bono, 2001; Spector, 1982) and job search in particular (Caliendo et al., 2015; McGee & McGee, 2016; Ng et al., 2006), and following the recent call for renewed interest in studying the LoC as a distinct con-

struct as well as efforts to expand its nomological network (Galvin et al., 2018), we focused on developing the existing knowledge base by examining the role of the LoC in the context of unemployed participants in retraining courses. In the research conducted on a sample of 14,626 participants, we focused on the different ways in which individuals can initially respond to a hypothetical job offer located more than 100 km away from their current residence.

Due to the novelty of the research topic and related ambiguity, we formulated a series of exploratory research questions instead of precise hypotheses. In particular, the following research questions were formulated: how is LoC related to responding to a job offer in terms of rejecting the offer (RQ1), experiencing worries about the offer (RQ2), positively reacting to the offer (RQ3), searching for further information about the offer (RQ4), and seeking advice from friends and family (RQ5)?"

METHOD

Sample and procedure

The research sample consisted of 14.626 participants (55% were male) with a mean age of 37.65 (Med = 38, Mod = 20.00 years).

Of all the participants, 54% were single, 35% were married, 9% were divorced, and 2% were widowed. 31.12% completed primary education and 6.76% did not complete primary education; 33.77% attained lower secondary vocational education; 33.77% attained higher secondary vocational education; 4.16 attained general secondary education; 0.26% attained post-secondary vocational education; 0.48% had a bachelor's degree; 1.49% had a master's degree; 0.03% had a doctoral degree; 42% of all participants lived in the countryside, 58% lived in cities.

The research respondents were "Ready to Work!" ("Home – pripravenynapracu.sk," 2020) applicants – unemployed people who were registered with the Centre for Labour, Social Affairs and Family. "Ready for Work" was a project of the Ministry of Labour, Social Affairs and Family that supported the retraining of registered unemployed people with a focus on production and technical training.

The unemployed participated in an inclusive education course. The content of the course was tailored to the needs of employers so that each participant had the opportunity to acquire the key soft skills needed to work effectively in a team and to be prepared for a successful job interview. During the practical part of the course, participants learnt basic manual skills used in production operator roles, basic automotive, me-

chanical, and electrical terminology and learnt how to work safely with basic tools and coordinate their tasks with their colleagues. The course lasted four weeks, and the candidates completed questionnaires after the first half. Respondents completed the questionnaires under the supervision of a tutor who guided them during the course. Data collection took place in 20 waves between June 2018 and February 2020.

Measures

Locus of control

LoC was based on Lumpkin's Brief LoC Scale (1985), inspired by Rotter's original 6-item LoC scale (1966). The scale consisted of 10 items focused on internal and external LoC (e.g., "What happens to me is mostly a consequence of my behaviour"), these are evaluated on a 5-item Likert scale of (dis)agreement (1 – strongly disagree; 5 – strongly agree). The internal consistency for the external LoC was McDonald's $\omega = 0.60$ and internal LoC was McDonald's $\omega = 0.63$. Although this is below the optimal threshold of 0.7, we decided to work with two subscales rather than merging them into one subscale or otherwise adjusting the subscales. First, although not optimal, the value of internal consistency in the range between 0.6-0.7 could be considered acceptable, especially considering the lower number of items per subscale. Second, although the number of items could be reconsidered to increase internal consistency, in this case, the internal consistency will not increase substantially if some items are dropped from a scale. Third, the differentiation between internal and external LoC may be of theoretical importance in the present context, and there were convergence problems when two subscales were merged into one.

Response to job offers

The response to job offers was assessed on a 7-point scale (1 – definitely yes; 7 – definitely not), while the individual items were formulated based on (dis)interest in a particular job offer. *The response to job offers* was divided into three subscales: worries, search for further information and offer refusal.

1. The "Search for further information" subscale consisted of 3 items, examining the level of intended effort of the unemployed to obtain information about the particular company, the working and wage/salary conditions (e.g., "I'll find out more about this company"). The analysis of internal consistency yielded a McDonald's ω of 0.87.

2. The "Worries" subscale consisted of 2 items. Its purpose was to find out whether the job offer would render the unemployed person nervous and tense with regard to the job offer (e.g., "Such an offer makes me nervous"). The analysis of the internal consistency yielded a Cronbach α of 0.73.

3. The "Refusal of offer" subscale consisted of 3 items and was focused on the tendency to automatically reject job offers and neglect job offer information by the unemployed (e.g., "I will refuse this offer"). The analysis of the internal consistency yielded a McDonald's ω of 0.63.

The "Seeking advice" scale consisted of 2 items and was focused on seeking advice from family and friends (e.g., "I will consult friends"). The analysis of the internal consistency yielded a McDonald's ω of 0.73.

The "Positive reaction" scale consisted of two items and was focused on the positive emotions associated with the job offers and the tendency to accept the offer (e.g., "I am pleased with this information"). The analysis of the internal consistency yielded a McDonald's ω of 0.75.

Materials, data, and analytical code can be found at https://osf.io/65bq9/?view_only=540e55ab308a475997effdd5dbdc0c85.

STATISTICAL ANALYSIS

Descriptive statistics are presented in Table 1.

↻ TABLE 1
Descriptive statistics

		Overall (<i>N</i> =14626)
ILoc	Mean (<i>SD</i>)	3.28 (0.697)
	Median [Min, Max]	3.40 [1.00, 5.00]
ELoc	Mean (<i>SD</i>)	3.29 (0.751)
	Median [Min, Max]	3.40 [1.00, 5.00]
Search for information	Mean (<i>SD</i>)	3.32 (1.61)
	Median [Min, Max]	3.00 [1.00, 7.00]
Offer refusal	Mean (<i>SD</i>)	4.01 (1.34)
	Median [Min, Max]	4.00 [1.00, 7.00]
Positive reaction	Mean (<i>SD</i>)	4.42 (1.54)
	Median [Min, Max]	4.50 [1.00, 7.00]
Advice seeking	Mean (<i>SD</i>)	3.16 (1.55)
	Median [Min, Max]	3.00 [1.00, 7.00]
Worries	Mean (<i>SD</i>)	4.32 (1.51)
	Median [Min, Max]	4.00 [1.00, 7.00]

Structural equation modelling (SEM) was selected as the main analytical tool in the present study because A) this method is in line with the research question of interest, B) SEM can analyse complex relationships among constructs, and C) it can handle unobserved variables (allowing the measurement of error).

The WLSMV (i.e., weighted least squares mean and variance adjusted) estimator was implemented, as this estimator can handle categorical and non-normal data in structural equation modelling (SEM). For analysis, we used the Lavaan package (Rosseel, 2023) in R environment (R Core Team, 2017).

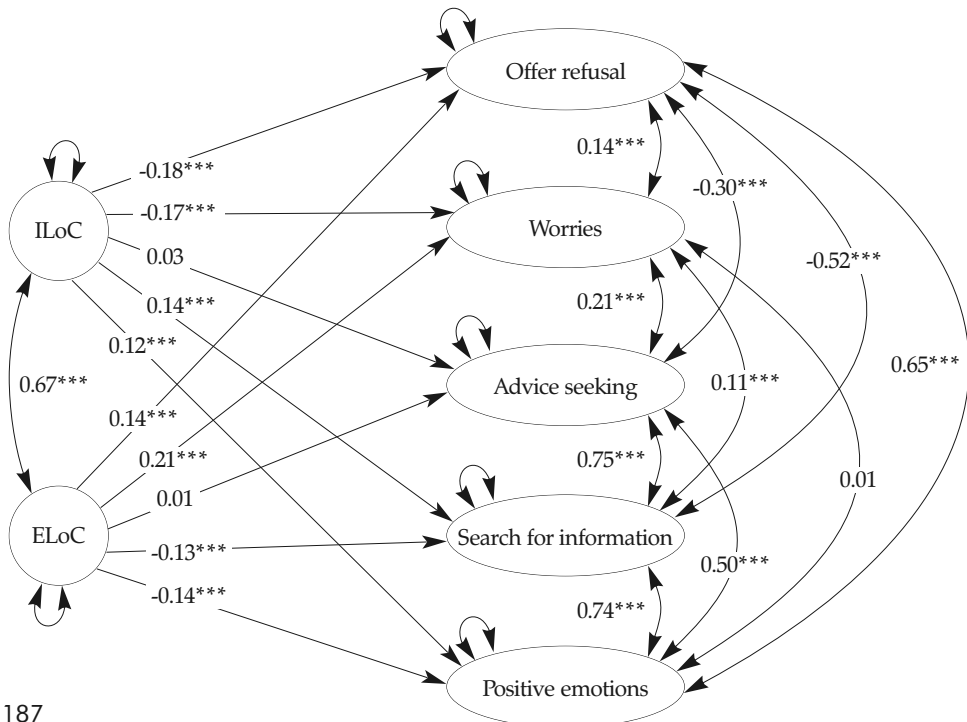
The following criteria for evaluating model fit were considered. First and foremost, the chi-square statistic is reported and considered for the global model fit evaluation. However, the approximate fit indices are also reported and evaluated. The benchmarks were selected as follows: RMSEA < 0.05 or at most 0.08; CFI > 0.90 or preferably 0.95; SRMR < 0.08 or ideally 0.05.

RESULTS OF SEM

Considering more traditional global fit statistics, it can be concluded that the model failed an exact fit test, as the chi-square test was statistically significant ($\chi^2(188) = 4352.71, p = 0.001$). The local fit can be assessed by inspecting residuals provided in Appendix C. As the chi-square statistic is sensitive to discrepancy detection in larger samples, and such discrepancy can be inconsequential, the results of approximate fit indices are provided and examined. In particular, the values of the comparative fit index (CFI), root mean square error of approximation (RMSEA) with 90% confidence interval (CI) and standardised root mean square residual (SRMR) were in the acceptable range (CFI = 0.97, RMSEA = 0.04, 90% CI [0.04, 0.04], SRMR = 0.04).¹ Therefore, the model was tentatively retained, and both the measurement and structural parts were examined.

The structural part of the model is graphically depicted in Figure 1, while both the measurement and structural parts are described in Appendix B in detail.

FIGURE 1
 The structural part
 of the model



Considering the measurement component of the model, all items loaded on the latent variables (all $p < 0.001$). However, as shown in Appendix A, it is worth noting that some factor loadings for LoC were lower than optimal (< 0.7).² When considering the structural component of the model, the internal LoC negatively predicted the tendency to automatically reject the job offer ($\beta = -0.18, p < 0.001$) and experience worries ($\beta = -0.17, p < 0.001$). Internal LoC also positively predicted a positive response to the offer ($\beta = 0.12, p < 0.001$) and search for further information regarding the offer ($\beta = 0.14, p < 0.001$). External LoC positively predicted the tendency to automatically reject the job offer ($\beta = 0.14, p < 0.001$) and worries ($\beta = 0.21, p < 0.001$). Also, external LoC negatively predicted positive reaction ($\beta = -0.14, p < 0.001$) and search for further information ($\beta = -0.13, p < 0.001$). However, seeking advice from friends and family was not predicted by either internal ($\beta = 0.03, p = 0.025$), or by external LoC ($\beta = 0.01, p = 0.615$). As can be seen, the effect sizes, although significant, are modest. Further insight into the effect size obtained can be gained by examining the correlations between the latent variables (all correlations were below 0.10) and the percentage of variance explained in endogenous variables (up to 2.5%), as shown in Appendix A and B.

DISCUSSION

Following the call for "renewed consideration of LoC as an independent construct and increased vigour in extending its theory and nomological network" (Galvin et al., 2018; p. 4), and a line of research focusing on the LoC of unemployed people in general and in the context of job search in particular (see, e.g., Caliendo, et al., 2015; McGee & McGee, 2016; Ng et al., 2006), we aimed to examine the role of LoC in responding to a hypothetical job offer on a sample of over fourteen thousand participants in retraining centres. The hypothetical offer stated that a large company was offering a new job, but the job was more than 100 km away from the individual's current residence. It was believed that such an endeavour has the potential to extend the existing knowledge base, as previous research (McGee & McGee, 2016; Caliendo et al., 2015; Srinivasan & Surinder, 1992) has mainly focused on examining the issue of information search and locus of control (LoC) in the context of human capital, personality, effort costs, search time, and search activities of unemployed individuals.

The results indicate that internal LoC predicted positive reactions to the job offer and the search for additional information about the job offer. Internal LoC was also negatively related to worries as a response to the job offer and to the automatic rejection of the job offer. On the other hand, external locus of control was positively related to worries and automatic rejection of the offer, and negatively associated with

positive reactions to the offer and searching for further information. Seeking advice from friends and family was not related to internal or external locus of control.

These findings demonstrate that both internal and external LoC are associated with different response tendencies to job offers located far from the current residence of unemployed individuals. Why is this the case? On the one hand, a new job offer from a large company is potentially very positive information for unemployed people. At the same time, however, if they don't believe that their efforts will have any impact on their life, a new offer and the associated distance could pose a considerable challenge.

The present findings are consistent with the previous research documenting the role of LoC in the process of job search. For example, according to prior research, those who believe they have control over their outcomes tend to secure a new job faster and have shorter spells of unemployment (Gallo et al., 2003). It has been suggested that people with internal LoC are more active in looking for jobs because they are confident that their efforts will result in a job offer. Unlike people with a lower internal LoC, they attribute offers to their actions (McGree & McGree, 2016). Also, their awareness of their skills makes them willing to work harder and look for jobs with higher pay, making them more attractive to employers. The present findings also suggest that people with a higher level of internal LoC tend to respond to the job offer differently than people with a higher level of external LoC, as they believe they can cope with the associated challenges, in this case, the distance. However, due to the larger sample size, it is important to explicitly consider not only the statistical but also the practical significance of the presented findings.

Positive correlation between internal and external LoC is a surprising finding of the conducted research. The positive correlation of 0.67 can be explained in several ways:

- unemployed respondents may experience cognitive dissonance, leading them to believe in control over certain aspects of their lives (internal LoC), while recognising the external factors also plays a significant role (external LoC);
- unemployed respondents looking for work may be under the influence of strong external factors (economic situation, labour market), but, on the other hand, they may have internal belief that their personal efforts and abilities can lead to an improvement in their situation;
- the unemployed who are actively looking for work may be more motivated to believe that they can change their situation (internal LoC), but at the same time realise that success also depends on external factors such as job offers and economic situation (external LoC).

People may tend to believe that they have some degree of control over their personal actions (for example, how they write their resume, how they prepare for interviews), but at the same time realise that the success of their efforts also depends on factors beyond their control (for example, the number of available jobs, employers' decisions). This dual perception of control may result in respondents showing high values in both dimensions of locus of control. Unemployed people, especially those registered with the employment office, can have a realistic view of their situation. They understand that they must put forth their best effort (internal LoC), but are also aware that their efforts may be affected by external circumstances such as the job market or the economic situation (external LoC). This realistic approach can explain the positive correlation between both dimensions of LoC.

Unemployment is a stressful situation that can lead to various psychological adaptations. One such adaptation may be the development of a belief in personal control over some aspects of life, while other aspects are perceived to be influenced by external factors. This adaptation can be a mechanism for coping with stress and uncertainty, which can lead to a positive correlation between internal and external LoC.

Is LoC worth considering in the present context when looking at the effect size? It depends. On the one hand, small effects are barely distinguishable from the crud factor (but see Orben & Lakens, 2020, for a discussion regarding the crud factor) and have no substantial explanatory or predictive importance, at least not in the short run (see Funder & Ozer, 2019 for interpretation of the effect size). On the other hand, as stressed by Funder and Ozer (2019, p. 166), "an effect-size r of 0.05 indicates an effect that is very small for the explanation of single events but potentially consequential in the not-very-long run, an effect-size r of 0.10 indicates an effect that is still small at the level of single events but potentially more ultimately consequential, an effect-size r of 0.20 indicates an effect of medium size that is of some explanatory and practical use even in the short run and therefore even more important".

The reason is that a small effect can accumulate over time, and this is particularly true in individual differences research (see e.g. Abelson, 1985). This argument can be illustrated by an example provided by Funder and Ozer (2019). Imagine a situation, where a student transfers to a dormitory, and this student is highly agreeable. If we work with an estimate of the correlation between agreeableness and successful social interaction as low as 0.05, the one-time effect is, in fact, negligible. However, if this student has twenty interactions per day, then "the consequences for his popularity in less than a month (550 interactions / 20 interactions per day = 27.5 days) will be noticeable" (Funder & Ozer, 2019, p. 161). This could also be

true in the present context. Imagine, for example, a situation where an unemployed person searches for job offers. Although the frequency will be lower than in the previous example, over time, people with a higher LoC will respond more positively to different (even more challenging) job offers, and, subsequently, they will find a new job sooner.

Practical implications

The findings presented here demonstrate implications for practice. However, it should be reminded one more time that although relationships were significant, the effect size was small. Therefore, future research should focus on determining other predictors of job search.

Based on the findings from the "Ready to Work" project, it would be beneficial to tailor retraining programmes for unemployed individuals to emphasise enhancing skills in job search techniques, understanding job roles, and encouraging them to pursue further qualifications in their chosen fields. In terms of education and training, special attention could also be paid to determining the level of LoC and the possibilities of its development (internality) for the benefit of the unemployed in the form of retraining courses. It is important for the unemployed to understand LoC in the context of finding a job. Education and training in the field of LoC and its development (internality) increase the chances of getting and keeping a job; therefore, the issue of LoC should be focused on at the end of secondary school, which could be of particular benefit to students who have decided to join the labour market right after their graduation. Recognising that individuals with an external locus of control may have worries and tend to automatically decline opportunities, employers might consider addressing these concerns directly in their communication and offering extra support or information to alleviate their apprehensions.

Limitations

As the sample consisted of the participants of the "Ready to Work" project (hereinafter referred to as the participants), the methods used had to be comprehensible for the different educational categories of respondents, ranging from people without any education to people with a PhD. The validity of the completed questionnaires could be influenced by the presence of the instructor (who spent four weeks with the participants during the course) and was present when the questionnaire was completed. Moreover, respondents from different regions of Slovakia were not evenly represented in the research group – a reason for this could be the regional headcount differences between the registered unemployed and the willingness of the unemployed to participate in the "Ready to Work" project.

Also, in some cases, the internal consistency of the scales was not optimal (i.e., below 0.7). Furthermore, although the brief versions of the scale have some benefits (e.g., Brief LoC is compatible with the theoretical framework of Rotter and it is easy and quick to administer, making it suitable for large surveys), the full versions could have better psychometric properties (see critique of Brief LoC provided by John et al., 1988). Relatedly, as data on all variables were collected from the same respondents at the same time and using the same questionnaire, there is a risk of common source bias that should be addressed in future research.

Perspectives for future research

Future research on LoC and unemployment should consider the availability of job positions, the unemployment history of an individual, and the stages and spells of unemployment in the context of human control capacity. More extended periods of unemployment can increase one's sense of helplessness and loss of control in terms of work (Legerski et al., 2006). A perspective for further research is to understand the two-dimensional nature of LoC (i.e., internal and external LoC). As noted by certain authors active in the field of organisational sciences (e.g., Galvin et al. 2018), an approach that emphasises the unidimensionality of LoC prevails. According to this approach, LoC lies in a continuum, and internal and external LoC are its two opposite poles. However, as suggested by research on the so-called bi-local expectancy (e.g., April et al., 2012), internal and external LoC may represent not one but two separate dimensions that balance each other, which can serve as a basis for further research. Furthermore, a systematic examination of the role of LoC could be beneficial, as the present results suggest that LoC may play some role in the current context, but this role is somewhat limited given the effect size. In addition, instead of examining LoC, one may focus on other psychological variables associated with individual differences that might – theoretically – be important in a particular context. An example of this is psychological capital (Luthans & Youssef-Morgan, 2017), which consists of self-efficacy, hope, optimism, and resilience as core factors for work motivation. This construct could be important in the job search process and should be examined in this researched context in the future.

CONCLUSION

In conclusion, the present study, conducted with more than fourteen thousand participants in retraining courses, provided a high-powered opportunity to examine the role of LoC in the intention to respond to specific job offers in a particular way. We found that internal and external LoC were associated with various ways in which individuals may respond to new job offers. However, the effects were small. This study provides new

findings regarding the role of LoC in job search and encourages further research on the topic.

NOTES

¹ Diagonally weighted least squares are recommended for ordered data. Therefore, a DWLS estimator and a mean- and variance-adjusted (MV) chi-squared test statistic have been used for analysis. However, it was suggested that applying benchmarks created for maximum likelihood for alternative estimators could be problematic (see Xia & Yang, 2019, for the argument that conventional cutoff values based on maximum likelihood method may not be appropriate and can lead to overestimation of the model fit). Thus, we also conducted a sensitivity analysis with a robust maximum likelihood estimator to ensure that fit indices are not inflated and can be interpreted. Although the model fit was slightly worse ($\chi^2(188) = 5821.44, p = 0.001$; CFI = 0.93, RMSEA = 0.05, 90% CI $\hat{S}0.05, 0.05\hat{C}$, SRMR = 0.04), the difference was not substantial, and the interpretation remained the same.

² It is worth noting that one-factor loading was below the recommended threshold (i.e., 0.4). We computed sensitivity analysis omitting this item, but as the results remained conceptually identical, the original model without post-hoc modifications was preferred and is reported.

APPENDIX

A Detailed SEM results

Model		Estimate (std. err.)	Standardised estimate	CI lower	CI upper	
Measurement part of the model	ELoc	G1	1.00+	0.41	0.39	0.43
		G2	1.17 (0.04)***	0.46	0.44	0.48
		G3	1.12 (0.04)***	0.47	0.45	0.48
		G4	1.45 (0.04)***	0.59	0.58	0.61
		G5	1.52 (0.04)***	0.61	0.59	0.63
	ILoc	G6	1.00+	0.50	0.48	0.52
		G7	0.42 (0.03)***	0.19	0.17	0.22
		G8	1.02 (0.03)***	0.55	0.53	0.57
		G9	1.15 (0.03)***	0.58	0.57	0.60
		G10	1.18 (0.03)***	0.60	0.59	0.62
	Search_for_information	D6	1.00+	0.81	0.80	0.82
		D7	1.01 (0.01)***	0.86	0.85	0.87
		D8	0.97 (0.01)***	0.83	0.82	0.84
	Offer_refusal	D2	1.00+	0.73	0.71	0.75
		D4	0.43 (0.02)***	0.32	0.29	0.34
D5		1.12 (0.02)***	0.77	0.76	0.79	

(continues)

(continued)

Model		Estimate (std. err.)	Standardised estimate	CI lower	CI upper
Structural part of the model	Positive_reaction D1	1.00+	0.74	0.73	0.75
	D3	1.17 (0.01)***	0.81	0.79	0.82
	Advice_seeking D9	1.00+	0.77	0.76	0.79
	D10	0.92 (0.01)***	0.75	0.73	0.76
	Worries D11	1.00+	0.60	0.57	0.62
	D12	1.69 (0.07)***	0.96	0.93	1.00
	Search_for_information ILoc	0.36 (0.05)***	0.14	0.18	0.10
	ELoc	-0.40 (0.06)***	-0.13	-0.09	-0.16
	Offer_refusal ILoc	-0.39 (0.05)***	-0.18	-0.14	-0.22
	ELoc	0.38 (0.06)***	0.14	0.19	0.10
	Positive_reaction ILoc	0.27 (0.05)***	0.12	0.16	0.08
	ELoc	-0.37 (0.05)***	-0.14	-0.10	-0.18
	Advice_seeking ILoc	0.06 (0.05)	0.03	0.07	-0.02
	ELoc	0.03 (0.06)	0.01	0.05	-0.03
Worries ILoc	-0.29 (0.04)***	-0.17	-0.13	-0.21	
ELoc	0.43 (0.04)***	0.21	0.25	0.17	
R squared	Search.for:information	0.01			
	Offer.refusal	0.02			
	Positive.reaction	0.01			
	Advice.seeking	0.00			
	Worries	0.03			
Fit Indices	χ^2	4033.04***			
	Scaled χ^2	4352.71(188)***			
	CFI	0.97			
	TLI	0.96			
	RMSEA	0.04			
	SRMR	0.04			

+Fixed parameter; *** $p < 0.001$

B Correlations among latent variables

Variable	1	2	3	4	5	6	7
1 ILoc	1.00						
2 ELoc	0.67	1.00					
3 Search_for_information	0.05	-0.03	1.00				
4 Offer_refusal	-0.08	0.03	-0.53	1.00			
5 Positive_reaction	0.03	-0.06	0.74	-0.66	1.00		
6 Advice_seeking	0.03	0.03	0.75	-0.30	0.50	1.00	
7 Worries	-0.03	0.10	0.09	0.16	-0.02	0.28	1.00

C Covariance residuals

	G6	G7	G8	G9	G10	G1	G2	G3	G4	G5	G6	G7	G8	D2	D8	D7	D6	D5	D1	D3	D9	D10	D11	D12
G6	0.000																							
G7	0.009	0.000																						
G8	-0.001	0.013	0.000																					
G9	-0.022	-0.004	0.020	0.000																				
G10	-0.033	0.009	-0.062	0.077	0.000																			
G1	-0.013	0.026	-0.060	-0.081	-0.011	0.000																		
G2	0.017	-0.016	-0.021	-0.052	0.003	0.095	0.000																	
G3	0.028	-0.029	0.005	-0.021	-0.006	0.040	0.029	0.000																
G4	0.031	-0.032	0.038	0.002	-0.007	-0.010	-0.041	0.009	0.000															
G5	0.036	-0.021	0.080	0.010	0.019	-0.026	-0.019	-0.054	0.015	0.000														
D6	-0.019	0.024	0.000	0.001	-0.004	-0.019	-0.015	0.002	-0.009	-0.009	0.000													
D7	-0.014	0.026	-0.011	-0.010	0.007	-0.008	0.001	-0.009	-0.008	0.015	-0.044	0.000												
D8	-0.009	0.019	0.009	0.003	0.018	-0.004	0.014	0.011	0.007	0.019	-0.061	0.119	0.000											
D2	0.017	-0.047	0.023	0.018	-0.006	-0.011	-0.016	0.011	0.005	-0.003	-0.044	0.019	0.038	0.000										
D4	-0.008	-0.004	-0.019	0.005	-0.012	0.017	0.014	-0.032	0.006	0.003	0.043	0.047	0.036	0.047	0.000									
D5	0.008	-0.027	-0.010	-0.012	0.006	0.024	0.009	-0.021	0.002	-0.003	-0.086	0.014	0.016	-0.057	0.120	0.000								
D1	-0.019	0.059	-0.029	-0.007	0.015	0.003	0.009	-0.020	-0.007	-0.002	0.068	-0.029	-0.047	-0.094	0.078	0.029	0.000							
D3	-0.012	0.043	-0.003	0.009	0.001	-0.014	0.000	0.014	0.009	0.004	0.097	-0.042	-0.053	0.000	0.052	0.002	0.000	0.000						
D9	-0.014	0.050	-0.029	-0.007	0.024	0.022	0.017	-0.028	-0.019	-0.011	-0.058	0.009	0.037	-0.025	0.054	0.000	0.010	0.010	0.000					
D10	-0.011	0.012	-0.003	-0.004	0.017	0.007	0.022	0.009	0.007	-0.010	-0.062	0.027	0.069	0.008	0.016	-0.011	-0.024	0.002	0.000	0.000				
D11	-0.003	-0.010	-0.057	-0.010	0.013	0.053	0.024	0.010	0.000	-0.021	-0.119	-0.092	-0.078	0.090	0.076	0.127	-0.093	-0.116	-0.035	-0.041	0.000			
D12	0.024	0.022	-0.048	-0.004	0.053	0.054	0.016	-0.016	-0.027	-0.034	0.030	0.070	0.073	-0.087	0.013	-0.072	0.062	0.067	0.026	0.019	0.000	0.000		

REFERENCES

- Abelson, R. P. (1985). A variance explanation paradox: When a little is a lot. *Psychological Bulletin*, *97*(1), 129–133. <https://doi.org/10.1037/0033-2909.97.1.129>
- April, K. A., Dharani, B., & Peters, K. (2012). Impact of locus of control expectancy on level of well-being. *Review of European Studies*, *4*(2), 124–137. <https://doi.org/10.5539/res.v4n2p124>
- Bono, J. E., & Judge, T. A. (2003). Core self-evaluations: A review of the trait and its role in job satisfaction and job performance. *European Journal of Personality*, *17*(1_suppl), S5–S18. <https://doi.org/10.1002/per.481>
- Caliendo, M., Cobb-Clark, D. A., & Uhlendorff, A. (2015). Locus of control and job search strategies. *Review of Economics and Statistics*, *97*(1), 88–103. https://doi.org/10.1162/REST_a_00459
- Coombs, W. N., & Schroeder, H. E. (1988). Generalized locus of control: An analysis of factor analytic data. *Personality and Individual Differences*, *9*(1), 79–85. [https://doi.org/10.1016/0191-8869\(88\)90032-3](https://doi.org/10.1016/0191-8869(88)90032-3)
- Chang, C.-H. (Daisy), Ferris, D. L., Johnson, R. E., Rosen, C. C., & Tan, J. A. (2012). Core self-evaluations: A review and evaluation of the literature. *Journal of Management*, *38*(1), 81–128. <https://doi.org/10.1177/0149206311419661>
- Demmou, L., Haluš, M., Machlica G., & Menkyna, R. (2015). *Spurring growth in lagging regions in Slovak Republic*. OECD Economics Department Working Papers, No. 1211, OECD Publishing, Paris. <https://doi.org/10.1787/5js1pzv05lkd-en>
- Feather, N. T., & O'Brien, G. E. (1986). A longitudinal study of the effects of employment and unemployment on school-leavers. *Journal of Occupational Psychology*, *59*(2), 121–144. <https://doi.org/10.1111/j.2044-8325.1986.tb00219.x>
- Ferguson, E. (1993). Rotter's locus of control scale: A ten-item two-factor model. *Psychological Reports*, *73*(3), 1267–128. <https://doi.org/10.2466/pr0.1993.73.3f.1267>
- Funder, D. C., & Ozer, D. J. (2019). Evaluating effect size in psychological research: Sense and nonsense. *Advances in Methods and Practices in Psychological Science*, *2*(2), 156–168. <https://doi.org/10.1177/2515245919847202>
- Gallo, W. T., Endrass, J., Bradley, E. H., Hell, D., & Kasl, S. V. (2003). The influence of internal control on the employment status of German workers. *Journal of Contextual Economics—Schmollers Jahrbuch*, *123*(1), 71–81. <https://doi.org/10.3790/schm.123.1.71>
- Galvin, B. M., Randel, A. E., Collins, B. J., & Johnson, R. E. (2018). Changing the focus of locus (of control): A targeted review of the LoC literature and agenda for future research. *Journal of Organizational Behavior*, *39*(7), 820–833. <https://doi.org/10.1002/job.2275>
- Goldsmith, A. H., Veum, J. R., & Darity, W. (1995). Are being unemployed and being out of the labor force distinct states?: A psychological approach. *Journal of Economic Psychology*, *16*(2), 275–295. [https://doi.org/10.1016/0167-4870\(95\)00009-D](https://doi.org/10.1016/0167-4870(95)00009-D)
- Heinström, J. (2010). 11 – Locus of control. In J. Heinström, *From fear to flow* (pp. 133–138). Elsevier. <https://doi.org/10.1016/B978-1-84334-513-8.50011-X>

- Home – pripravenynapracu.sk. (2020, July 16). Retrieved May 25, 2021, from Pripravenynapracu.sk website: <https://pripravenynapracu.sk/en/>
- John, J., Tansuhaj, P., Gentry, J. W., Manzer, L. L., & Cho, B. J. (1988). Lumpkin's abbreviated version of Rotter's Locus of Control Scale: How reliable is it? *Psychological Reports*, 62(3), 835–839. <https://doi.org/10.2466/pr0.1988.62.3.835>
- Johnson, R. E., Rosen, C. C., & Djurdjevic, E. (2011). Assessing the impact of common method variance on higher order multidimensional constructs. *Journal of Applied Psychology*, 96(4), 744–761. <https://doi.org/10.1037/a0021504>
- Johnson, R. E., Rosen, C. C., & Levy, P. E. (2008). Getting to the core of self-evaluation: A review and recommendations. *Journal of Organizational Behavior*, 29(3), 391–413. <https://doi.org/10.1002/job.514>
- Johnson, R. E., Rosen, C. C., Chang, C.-H. (Daisy), & Lin, S.-H. (Joanna). (2016). Assessing the status of LoC as an indicator of core self-evaluations. *Personality and Individual Differences*, 90, 155–162. <https://doi.org/10.1016/j.paid.2015.11.002>
- Johnson, R., Rosen, C., Chang, C.-H., & Lin, S. H. J. (2015). Getting to the core of LoC: Is it an evaluation of the self or the environment? *Journal of Applied Psychology*, 100(5), 1568–1578. <https://doi.org/10.1037/apl0000011>
- Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluations traits – self-esteem, generalized self-efficacy, locus of control, and emotional stability – with job satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology*, 86(1), 80–92. <https://doi.org/10.1037/0021-9010.86.1.80>
- Judge, T. A., Locke, E. A., & Durham, C. C. (1997). The dispositional causes of job satisfaction: A core evaluations approach. *Research in Organizational Behavior*, 19, 151–188.
- Judge, T. A., Locke, E. A., Durham, C. C., & Kluger, A. N. (1998). Dispositional effects on job and life satisfaction: The role of core evaluations. *Journal of Applied Psychology*, 83(1), 17–34. <https://doi.org/10.1037/0021-9010.83.1.17>
- Kanfer, R., Wanberg, R. C., & Kantrowitz, M. T. (2001). Job search and employment: A personality-motivational analysis and meta-analytic review. *Journal of Applied Psychology*, 57(1), 33–42. <https://doi.org/10.1111/j.2044-8325.1984.tb00145.x>
- Lefcourt, H. M. (1991). Chapter 9 – Locus of Control. In J. P. Robinson, P. R. Shaver, & L. S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes* (pp. 413–499). Academic Press. <https://doi.org/10.1016/B978-0-12-590241-0.50013-7>
- Legerski, E. M., Cornwall, M., & O'Neil, B. (2006). Changing LoC: Steelworkers adjusting to forced unemployment. *Social Forces*, 84(3), 1521–1537. <https://doi.org/10.1353/sof.2006.0054>
- Lumpkin, J. R. (1985). Validity of a brief LoC scale for survey research. *Psychological Reports*, 57(2), 655–659. <https://doi.org/10.2466/pr0.1985.57.2.655>
- Luthans, F., & Youssef-Morgan, C. M. (2017). Psychological capital: An evidence-based positive approach. *Annual Review of Organizational*

Psychology and Organizational Behavior, 4(1), 339–366. <https://doi.org/10.1146/annurev-orgpsych-032516-113324>

McGee, A. D. (2015). How the perception of control influences unemployed job search. *Industrial & Labor Relations Review*, 68(1), 184–211. <https://doi.org/10.1177/0019793914556245>

McGee, A., & McGee, P. (2016). Search, effort, and LoC. *Journal of Economic Behavior & Organization*, 126, 89–101. <https://doi.org/10.1016/j.jebo.2016.03.001>

Mirels, H. L. (1970). Dimensions of internal versus external control. *Journal of Consulting and Clinical Psychology*, 34(2), 226–228. <https://doi.org/10.1037/h0029005>

Ng, T. W. H., Sorensen, K. L., & Eby, L. T. (2006). LoC at work: A meta-analysis. *Journal of Organizational Behavior*, 27(8), 1057–1087. <https://doi.org/10.1002/job.416>

OECD (2022). *OECD regions and cities at a glance 2022*. OECD Publishing, Paris. <https://doi.org/10.1787/14108660-en>

Orben, A., & Lakens, D. (2020). Crud (re)defined. *Advances in Methods and Practices in Psychological Science*, 3(2), 238–247. <https://doi.org/10.1177/2515245920917961>

Preuss, M., & Hennecke, J. (2018). Biased by success and failure: How unemployment shapes LoC. *Labour Economics*, 53, 63–74. <https://doi.org/10.1016/j.labeco.2018.05.007>

Ross, C. E., & Mirowsky, J. (1992). Households, employment, and the sense of control. *Social Psychology Quarterly*, 55(3), 217–235. <https://doi.org/10.2307/2786793>

Rosseel, Y., Jorgensen, T. D., & Rockwood, N. (2023). *lavaan: Latent Variable Analysis. R package version 0.6-16*. <https://CRAN.R-project.org/package=lavaan>

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*, 80(1), 1–28. <https://doi.org/10.1037/h0092976>

R Core Team (2017) *R: A language and environment for statistical computing*. <https://www.R-project.org/>

Spector, P. E. (1982). Behavior in organizations as a function of employees' LoC. *Psychological Bulletin*, 91(3), 482–497. <https://doi.org/10.1037/0033-2909.91.3.482>

Srinivasan, N., & Surinder, T. (1992). Effect of LoC on information search behavior. *Advances in Consumer Research*, 19(1), 495–504.

Tiggermann, M., & Winefield, H. A. (1984). The effects of unemployment on the mood, self-esteem, locus of control, and depressive affect of school-leavers. *Journal of Occupational Psychology*, 57(1), 33–42. <https://doi.org/10.1111/j.2044-8325.1984.tb00145.x>

Xia, Y., & Yang, Y. (2019). RMSEA, CFI, and TLI in structural equation modeling with ordered categorical data: The story they tell depends on the estimation methods. *Behavior Research Methods*, 51(1), 409–428. <https://doi.org/10.3758/s13428-018-1055-2>

Waters, L. E., & Moore, K. A. (2002). Self-esteem, appraisal and coping: A comparison of unemployed and re-employed people. *Journal of Organizational Behavior*, 23(5), 593–604. <https://doi.org/10.1002/job.156>

Koja je uloga lokusa kontrole u odgovorima na ponude udaljenih poslova? Opsežno istraživanje nezaposlenih polaznika programa za prekvalifikaciju

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Ulogu lokusa kontrole u traženju posla istraživao je ograničen broj studija. U ovoj studiji, koja je uključivala više od četrnaest tisuća sudionika upisanih na programe prekvalifikacije, ispitali smo ulogu lokusa kontrole (LoC-a) u odgovorima pojedinaca na hipotetsku ponudu posla koji je 100 km udaljen od njihova sadašnjega mjesta stanovanja. Rezultati su pokazali da unutarnji lokus kontrole predviđa pozitivan odgovor na ponudu posla i tendenciju traženja dodatnih informacija o toj ponudi. Osim toga, unutarnji lokus kontrole pokazao je negativnu povezanost sa zabrinutosti i automatskim odbijanjem ponuda za posao. Nasuprot tome, vanjski lokus kontrole pozitivno je predviđao zabrinutost i sklonost odbijanju ponude posla, a negativno je korelirao s nastavkom traženja informacija i pozitivnim reakcijama na tu ponudu. Međutim, veličina učinaka bila je mala, što upućuje na potrebu nastavka potrage za prediktorima reakcije na ponudu za posao. Ni jedna vrsta lokusa kontrole nije bila povezana s traženjem savjeta od prijatelja ili obitelji.

Ključne riječi: lokus kontrole (LoC), unutarnji LoC, vanjski LoC, traženje posla, nezaposlenost



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