



Article

Trait Optimism and Work from Home Adjustment in the COVID-19 Pandemic: Considering the Mediating Role of Situational Optimism and the Moderating Role of Cultural Optimism

Michal Biron 1,*,†, Hilla Peretz 2,† and Keren Turgeman-Lupo 3,†

- School of Business Administration, University of Haifa, Haifa 3498838, Israel
- Department of Industrial Engineering and Management, ORT Braude Academic College of Engineering, Karmiel 216100, Israel; hillap@braude.ac.il
- Management and Human Resources Program, Ramat Gan Academic College, Ramat Gan 5211401, Israel; keren.t@iac.ac.il
- * Correspondence: mbiron@univ.haifa.ac.il; Tel.: +972-4-828-8489
- † All authors contributed equally to this article.

Received: 26 October 2020; Accepted: 20 November 2020; Published: 23 November 2020



Abstract: An organization's capacity to sustain a crisis, and to benefit from work-from-home (WFH) arrangements in routine times, is dependent on its employees' ability to successfully adjust to WFH conditions. The COVID-19 pandemic, which forced vast numbers of employees worldwide to WFH, provides an unprecedented opportunity to identify factors that facilitate WFH adjustment. Leveraging this opportunity and drawing from theories on person-environment fit and work adjustment, we consider trait optimism as a possible facilitator of WFH adjustment during the pandemic. We further investigate how situational optimism and cultural (country-level) optimism contribute to the relationship between trait optimism and WFH adjustment. Using data from 388 employees in five countries, we find that trait optimism positively relates to WFH adjustment. This relationship is partly mediated by situational expectations regarding health/financial benefits of WFH amid the pandemic. Moreover, trait optimism is more strongly related to WFH adjustment in countries with high (vs. low) cultural optimism. This study addresses the call to investigate whether and how personality traits relate to WFH adjustment. Our findings can improve organizations' ability to select and train employees who WFH, and to enhance operational resilience to future crises. Managers in global firms can draw from our results to understand how cultural differences affect the ease with which WFH is adopted, and to develop country-specific WFH practices.

Keywords: adjustment; COVID-19; crises; cross-culture; optimism; work from home

1. Introduction

Even before the COVID-19 pandemic limited employees' capacity to gather in indoor areas, many organizations enabled their employees to work in locations outside the primary office, in what is known as remote work (or telecommuting, virtual work, or telework [1,2]). The trend towards remote work, made possible by developments in information and communication technology, was motivated in part by changing demographics such as increased numbers of working mothers and dual-career couples, as well as growing pressure from regulatory bodies and the public to reduce the economic and climate costs of commuting [3,4].

While remote work often involves the flexibility to work in multiple locations, such as home, shared work areas, client sites, and coffee shops, the most common location for remote work is the

Sustainability **2020**, 12, 9773 2 of 21

home [5,6]. In the years in which work from home (WFH) initially began to gain prevalence, it was largely viewed as a beneficial practice for both organizations and employees [7]. Yet, empirical studies of how WFH, as compared with non-remote work, affects various outcomes have revealed both benefits and shortcomings [1,5,8]. On the positive side, WFH can lead to greater work-family balance [9], higher job satisfaction [10] and reduced stress [11,12]. On the negative side, WFH can result in social isolation, career stagnation, and work-family conflict [5,13]. Employers may also find that WFH hampers performance, knowledge sharing, and organizational identification [14–16]. The mixed evidence on the effects of WFH may explain why, prior to the emergence of COVID-19, the number of employees who worked from home was rather small and was growing only slowly in most countries [17–19]. Yet, with the onset of the pandemic, the picture quickly changed, with unpreceded numbers of employees worldwide suddenly being forced to work remotely. This situation suggests that the extent to which a workforce can successfully transition to WFH may be a deciding element in the organization's capacity to sustain a crisis. More broadly, as noted by Raghuram and colleagues, organizations' ability to benefit from WFH—not only in crisis but also in routine times—"depends upon how effectively employees are able to adjust to the transition from traditional to virtual work modes" [20], p. 384.

Given the mixed evidence with regard to the benefits and shortcomings of WFH, it seems plausible that certain individuals may be better suited to WFH than others [21–23]. An important issue, then, is identifying conditions and individual characteristics that foster adjustment to WFH, particularly in times of crisis. As elaborated in what follows, the current study leverages the opportunity provided by the pandemic—namely, vast swaths of employees who have universally been required to WFH—to shed light on such characteristics. Our focal characteristic is optimism, having to do with the anticipation of positive outcomes for the future [24]. We investigate how individuals draw from different sources of optimism to better adjust to WFH. These sources include their personal traits, the specific circumstances (situation), and the broader, national culture.

This paper draws from the theory of work adjustment (TWA) and, more specifically, from the theory of Person–Environment (P–E) fit, which is grounded in TWA. TWA describes interrelations between workers and their work environment, positing that employees and organizations interact and adjust to each other, such that each works to meet the other's requirements [25,26]. The theory of P–E fit [27,28], in turn, suggests that the success of this adjustment process—i.e., the extent to which both the employee and the organization succeed in having their mutual demands met [25,26,29]—is dependent on the level of congruence (fit) between the attributes of the employee and the attributes of the environment [30,31].

The body of literature on WFH adjustment has been growing in recent years. Yet, more needs to be uncovered with respect to the antecedents of WFH adjustment in general, and in times of crisis in particular. Indeed, crises, in which WFH may be mandatory for all employees of an organization, introduce specific adjustment challenges that are less salient during routine times, when WFH is typically voluntary, and may be complementary to traditional, office-based arrangements. For example, managing boundaries between work and nonwork roles—which is generally challenging for individuals working from home [15,32]—becomes even more complicated when the external environment is disruptive, potentially leading priorities and resource availability to change [11,33]. Accordingly, the key objective of the current study is to investigate conditions that enhance employee adjustment to WFH during crisis circumstances, namely, during the COVID-19 pandemic. More specifically, we seek to address two gaps.

First, prior research has considered structural factors (e.g., task independence), technological factors (e.g., tech support), and relational factors (e.g., organizational connectedness) as predictors of WFH adjustment. Moreover, several studies have suggested that WFH adjustment is influenced by personal skills such as time management, communication, and ability to work autonomously [22,34–36]. Yet, little is known about personality traits that may relate to WFH adjustment. Personality traits are relatively stable patterns of thought, emotion, and behavior. These traits are considered key for understanding how individuals respond to stimuli they encounter in the environment [37].

Sustainability **2020**, 12, 9773 3 of 21

We consider the personality trait of optimism, broadly defined as generalized expectancy of good outcomes, even in the face of adversity [24]. Our focus on this trait is motivated by prior evidence that optimism can help individuals to adapt to changes inflicted upon them, for example, when starting college, retiring, or during pregnancy [38–40]. We suggest that optimism may similarly assist individuals adjusting to WFH in crises such as the pandemic, in which employees are constantly faced with changes in their environment, coupled with changes to their identities and tasks (e.g., the need to take on a teaching or caregiving role due to school closure).

Second, assuming that trait optimism indeed facilitates WFH adjustment under crisis circumstances, we seek to uncover variables—a mediator and a moderator—that may help to explain the effect. As a possible mediator, we focus on situational expectations regarding WFH outcomes, i.e., employee perceptions regarding the potential health and financial benefits of engaging in WFH during the COVID-19 pandemic. We suggest that generalized optimism may foster WFH adjustment partly by enhancing the extent to which individuals perceive WFH as providing concrete benefits during the COVID-19 pandemic; in other contexts, these types of situational expectations have been shown to contribute to cognitive abilities such as adjustment—beyond the effect of enduring traits [41–46].

With regard to a moderating factor, given the global reach of the COVID-19 pandemic, we focus on country-level or cultural optimism, defined as the overall optimism level characterizing a specific cultural group or nation [47]. Prior WFH research has considered international differences in the adoption and support of WFH practices [48–50]. We extend this research by considering how cultural optimism interacts with trait optimism to influence WFH adjustment.

Figure 1 graphically illustrates our theoretical model, depicting the proposed relationship between trait optimism and WFH adjustment, the partial mediation effect of situational optimism, and the moderation effect of cultural optimism.

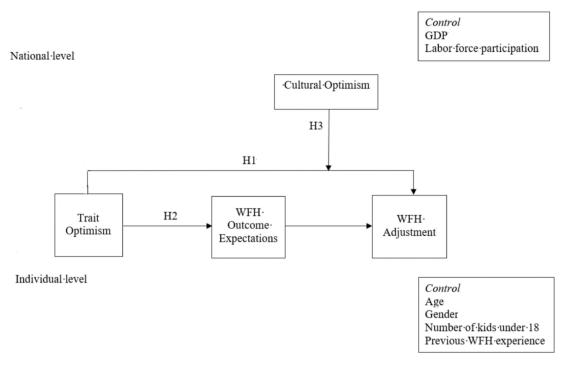


Figure 1. Proposed model.

Sustainability **2020**, 12, 9773 4 of 21

2. Background and Hypothesis Development

2.1. Context: WFH in Times of Crisis

2.1.1. The Role of WFH in Sustaining Organizational Operations through Crises

Many organizations have plans in place to enable them to keep running during a period of interruption of normal operation. These so-called business continuity plans help organizations identify and protect critical processes and resources required to allow rapid resumption of operation and to maintain an acceptable level of business [51–53]. Organizations that lack adequate continuity plans face the risk of failing to sustain crises: For example, flooding caused by Tropical Storm Alberto in Georgia forced businesses located in Montezuma's downtown business district to close for a period of up to seven months [54].

The capacity to quickly transition to a remote (non-office-based) mode of operation is a key component of continuity plans. Practically speaking, such a capacity implies that employees must have the ability to engage in (all or part of) their work from other locations, including their home. Indeed, organizations that regularly offer WFH arrangements have demonstrated greater ability to rebound in crises compared with organizations that do not [55–57]. For example, whereas many organizations had to shut down operation during a series of severe storms in North America in the winter of 2010, the U.S. Defense Information Systems Agency had many of its employees able to carry out work responsibilities from home [58]. WFH employees at AT&T, the world's largest telecommunications company, were able to quickly assemble cross-functional teams to maintain firm operation in the aftermath of Hurricane Katrina [59]. Remote work and WFH also proved effective immediately after the attacks on the World Trade Center on 11 September 2001. Morgan Stanley, with thousands of employees employed at the World Trade Center, reinforced its business plan after the September 11 attacks, including the use of alternate work locations, enabling the firm to quickly restore operations [60].

Studies have sought to identify practices for sustaining business operation during heath crises, like the influenza A virus (H1N1) that was detected on April 2009 and quickly spread worldwide. Smith et al. [61], for example, described the magnitude of impacts caused by the virus on UK's economy. The authors concluded that to sustain operations against the virus threat, it was crucial to balance between "business as usual" and "social distancing." Similarly, reviewing the impact of H1N1 on the economy in several European countries, Keogh-Brown et al. [62] found that strategies implemented by organizations were key to sustainability and recovery. They explained how careful planning for school closure and prophylactic absenteeism within different sectors (e.g., agriculture, retail, tourism) helped to mitigate health effects while maintaining economic viability.

2.1.2. WFH during the COVID-19 Pandemic

In December 2019, a cluster of pneumonia cases of unknown cause was reported by health authorities in Wuhan, China. The cause was later identified as a novel coronavirus, with the resulting illness named "Coronavirus disease 2019" or COVID-19, by the World Health Organization [63]. On 23 January 2020, the Chinese government imposed a lockdown in Wuhan, which was soon extended to other cities and provinces in China. With the wide spread of COVID-19 to other countries and continents, WHO declared COVID-19 a pandemic on 11 March 2020 [64]. Worldwide, governments announced stay-home orders, which involved enforcement of physical distancing, restriction of travel, and closure of schools and workplaces.

Organizational operations across the globe has dramatically changed, with all but essential workers forced to move to WFH. These rapid changes had negative psychological implications [65]. Individuals, particularly employees who had to continue working under lockdown/quarantine, experienced stress, fear, job insecurity, and frustration, as well as conflict between professional duties and family/parental obligations [66,67]. Similar difficulties were observed in prior global health crises, like the Severe Acute Respiratory Syndrome (SARS) outbreak in 2003 [68] and the H1N1 pandemic in 2009 [69].

Sustainability **2020**, *12*, 9773 5 of 21

Due to its magnitude and length, the COVID-19 pandemic has been referred to as the world's biggest remote working experiment [70–72]. Though a crisis, and particularly a global health crisis, is by no means an ideal experimental environment—given that, as discussed above, crises may influence individuals' WFH experience in unpredictable ways—it is still an unprecedented opportunity for many industries to reconsider how employees work.

2.2. WFH Adjustment: Theoretical Underpinnings

P-E fit is a broad concept that involves the employee's perceived compatibility with different aspects of the work environment, including the job, the supervisor, the team, and the organization [73,74]. P-E fit theory suggests that employee outcomes are affected not only by individual and contextual factors in themselves but also by the fit or congruency between the individual and these contextual factors [27,28]. For example, Biron and van Veldhoven [11] observed a longitudinal positive relationship between person-organization fit, person-job fit, and retention. At the same time, perceptions of P-E misfit have been found to relate to efforts to improve fit, referred to as adaptation or adjustment. For example, employees experiencing high work demands may seek training to improve their abilities or attempt to negotiate a decreased work load with their supervisor [26,28]. With many studies confirming that successful adjustment is conducive to healthy and productive employees [39,40], it is important to identify resources on which employees can draw to adjust.

In the context of WFH specifically, successful adjustment occurs when the individual is able to comfortably manage, learn from, and cope with the demands stemming from the way work is structured—in terms of the time and location of work as well as the employee's relationships with various role partners. Such adjustment is likely to occur when employees perceive that they have the ability either to change the job enough to meet their own demands, or to change themselves enough to meet the demands of the job [20,75].

In the 20 years since the concept of WFH adjustment was first introduced, research has empirically confirmed that WFH adjustment is influenced by factors related to organizational training and support, professional skills, and availability and quality of technology [22,34–36]. To our knowledge, only two studies to date have considered personality traits with relation to WFH adjustment: Raghuram, Wiesenfeld, and Garud [35] found that employees with high self-efficacy showed better WFH adjustment compared to employees with low self-efficacy. Kane [76] suggested, but did not observe, a relationship of need for belonging and proactivity with WFH adjustment. These authors encouraged researchers to explore additional personality traits in the context of WFH adjustment, suggesting that insights in this regard may help organizations to better select and train employees who WFH, as well as to improve WFH outcomes. Addressing this call, we consider the role of a personality trait, namely, optimism, in adjusting to WFH during the COVID-19 pandemic. We further explore a situational mechanism through which personality relates to adjustment, and country-level cultural differences in this relationship.

Our study further extends past research on WFH adjustment by focusing on a period of crisis. Prior studies have largely considered WFH adjustment in routine times, during which only a small share of the workforce engages in WFH, in many cases on a part-time and voluntary basis. Key challenges for WFH adjustment in routine times include social and professional isolation [20] and boundary management [15]. These challenges may be particularly salient in times of crisis, when mandatory, large-scale WFH is enacted.

2.3. Optimism and WFH Adjustment

Trait optimism refers to general expectations regarding future positive outcomes, and can be viewed as the ability to cope with adversities and stressful life experiences while balancing between the negative and the positive emotions that these events may raise [39,77–79]. Research has confirmed that trait optimism relates negatively to anxiety and depression [77,78]. Optimism was also found to relate to physical health, as indicated, for example, by low blood pressure [78,79].

Sustainability **2020**, 12, 9773 6 of 21

We propose that in crisis situations, and in the context of the COVID-19 pandemic specifically, individuals high in optimism are more likely than those low in optimism to curb and maneuver through external disturbances inflicted on them (e.g., physical threat, job insecurity, school closure), disturbances that might otherwise undermine their ability to adjust to WFH. The flexibility inherent in optimism allows optimistic people to switch coping strategies so as to meet the requirements of a situation. Prior research has discussed the flexibility element of optimism, and how optimistic individuals embody readiness to be continually open to changing their approaches [38–40,80]. Optimistic people are also considered to be resilient in that they are likely to apply problem-focused strategies (more than emotion-focused strategies) to cope with internal and external stressors, and to bounce back quickly from these experiences towards the fulfillment of tasks and goals [77,81,82]. Accordingly, we put forth the following baseline hypothesis:

Hypothesis 1 (H1). *Trait optimism is positively associated with WFH adjustment during the COVID-19 pandemic.*

2.3.1. The Mediating Role of Expectations about WFH Outcomes

The associations of optimism with WFH adjustment may involve not only direct but also indirect effects. One potential mechanism through which optimism may affect WFH adjustment is by influencing individuals' expectations regarding WFH outcomes (i.e., their perceptions of health and financial benefits attributed to WFH during the pandemic). In general, extensive theoretical and empirical research has suggested that situation-specific expectations are strong determinants of individuals' behavior in response to stressful and difficult situations [41,42,44,46]. In this context, Kluemper et al. [83] found that situational optimism explained additional variance above and beyond trait optimism in work-related outcomes such as burnout and job satisfaction. And Chang, Bodem, Sanna, and Fabian [43], while observing a significant contribution of trait optimism to such outcomes as self-reported grades and life satisfaction among college students, found that domain-specific optimism significantly improved these outcomes. These authors encouraged researchers to integrate a domain-specific approach when studying enduring traits like optimism.

Addressing this call, we take account of event-contextualized expectations having to do with employees' perceptions of WFH benefits during the COVID-19 pandemic. Specifically, we consider whether generalized expectations that good things will happen (i.e., trait optimism) reinforce malleable, current expectations that positive outcomes will occur (i.e., situational optimism), with the latter partially mediating the relationship of the former with WFH adjustment. Personality traits may influence situational experiences (and subsequent behaviors) by changing the construal level of the situation, that is, by decreasing the psychological distance from the disturbing event and its abstractness. As such, individuals may be more likely to comprehend the situation in concrete terms, and to clearly consider its implications for them [84].

Our situational optimism construct involves employees' expectations about the value (benefits) of WFH for their health and the health of others, for their financial state, and for the ability of their employer to sustain operation. Our decision to focus on such expectations is grounded in the well-established link between outcome expectations and behavior that facilitates the attainment of such outcomes. Specifically, the self-regulation principle in Bandura's social cognitive theory [85] suggests that individuals are likely to be motivated to engage in certain behaviors or pursue certain accomplishments when they consider the potential benefits of these actions. These "self-incentives" motivate employees to expend the effort needed to attain the requisite performances: "Both the anticipated satisfaction of desired accomplishments and the dissatisfactions with insufficient ones provide incentives for actions that increase the likelihood of performance attainments" (p. 256). In a similar way, we assume that positive expectations about the benefits of WFH during the pandemic (to one's health, financial state, etc.) may lead employees to increase their effort and engagement, thereby contributing to WFH adjustment, whereas negative expectancies may lead to reduced effort and disengagement through WFH. Formally, we propose:

Sustainability **2020**, 12, 9773 7 of 21

Hypothesis 2 (H2). WFH outcome expectations (situational optimism) partly mediate the association between trait optimism and WFH adjustment during the COVID-19 pandemic.

2.3.2. The Moderating Role of Cultural Optimism

Our model proposes that the relationship between trait optimism and WFH adjustment may also be contingent on national culture. Lehman et al. [86] suggested that "even when people from different cultures appear to be psychologically 'the same', there may be fundamental cross-cultural differences in the deep meanings of the motivations, cognitions, emotions, and behaviors." This statement reflects the dynamics—and tensions—underlying any investigation into the intersection of the study of culture and the study of psychology, urging us to integrate meaningful cross-cultural differences with fundamental human universals [87]. National culture "consists in patterned ways of thinking, feeling and reacting, acquired and transmitted mainly by symbols, constituting the distinctive achievements of human groups, including their embodiments in artifacts; the essential core of culture consists of traditional ideas and especially their attached values" [88], p.181. Hofstede [89] offers a similar observation, regarding culture as a system of collectively held values. Research has empirically shown that national culture is a strong determinant of individual behavior, above and beyond individual differences [90,91]. We thus suggest that national variations in optimism may help to explain the degree to which trait optimism relates to WFH adjustment.

Some research exists on the link between specific cultural values and adjustment to work. For example, studies have shown that employees from collectivist cultures (i.e., cultures characterized by emphasis on cohesiveness among individuals and prioritization of the group over the self) tend to experience fewer work adjustment problems than employees from individualistic cultures (i.e., cultures that stress the needs of the individual over the needs of the group as a whole) [92]. Cross-cultural differences in optimism have recently begun to gain attention. This literature builds on the notion of collective optimism, which refers to the shared positive expectations and beliefs about the future among a set of individuals [93]. Unlike optimism at the individual level, which forms primarily through cognitive processes, collective (e.g., country-level) optimism forms through social processes. Hence, while the meaning of optimism is similar at the two levels, they are two distinct constructs [94].

Collective optimism is said to influence individual reactions to various situations because individuals often consider alternative coping strategies in a social context, such that they are likely to be influenced by the views, expectations, and beliefs of others [95]. Along these lines, collective optimism may be an important source of information for individuals, especially in situations where uncertainty is high [96,97]. Notably, whereas some evidence indicates that the populations of most countries are largely optimistic (e.g., [98]), a new large-scale study with data from 61 countries revealed that individuals' level of optimism varies depending on country of residence [99]. Indeed, [100] discussed the role of cultural optimism in predicting behavior in a range of circumstances, including adverse situations. Specifically, individuals from countries characterized by high optimism are more likely to exhibit effective coping strategies (e.g., problem-solving and positive-reappraisal) than are individuals from countries characterized by low optimism, who are more likely to hold beliefs of helplessness, which lead to fewer goal-oriented behaviors when facing adversities [101].

We propose that national-level cultural optimism is likely to interact with individual-level trait optimism, influencing the relationship of the latter with WFH adjustment during the COVID-19 pandemic. Our reasoning is based on three main ideas. First, given their high resilience and flexibility, high-optimism individuals perceiving low cultural optimism may feel they need not subject themselves to values reflecting fears about the (ambiguous) future (more likely to be "immune" to negativity in their surrounding)—in contrast to low-optimism individuals, who may feel overwhelmed by the double burden of personal and cultural dispositions. Moreover, less optimistic employees are likely to be particularly sensitive to, and influenced by, low-optimism cultural cues, which serve their over-cautious attitudes and slowness to accept changes. For these employees, concerns with the current WFH situation (due to low cultural optimism, among other factors) may decrease motivation to adjust.

Sustainability **2020**, 12, 9773 8 of 21

Second, high levels of cultural optimism may instill a sense of responsibility and mutual obligation in times of crisis—bounded to the self and/or the collective [102]. Thus, employees in high-optimism countries may be more motivated to adjust to WFH, which might mean helping themselves, their families and/or their organizations. We propose that this may be particularly true among employees who are more capable of successfully contributing to meeting pressing needs in uncertain times, i.e., more optimistic individuals.

Third, culture may serve the need for certainty and confidence in individuals' perceptions of the world around them. Research suggests that, particularly in difficult times—e.g., when people fear for their safety—common beliefs, expectations, and rules for interpreting the world help individuals to validate their own construction of reality [103,104]. This suggests that employees may draw from their culture's optimism to make sense of and adjust to the situation. In line with prior research, these cultural effects may be more easily activated when they are consistent with personal attitudes [105]. Taking these three considerations into account, we posit:

Hypothesis 3 (H3). Cultural optimism moderates the association between trait optimism and WFH adjustment during the COVID-19 pandemic—such that the positive association between trait optimism and WFH adjustment is amplified as a function of country-level optimism.

In sum, drawing from the P-E fit theory [27,28] and its conceptual origin, the TWA, the current research is designed to examine how employees draw from their personality traits, situational expectations, and cultural environment to better adjust to WFH in times of crisis.

3. Methods

3.1. Procedure and Sample

This is a cross-sectional and cross-national study. Data were collected via online questionnaire from 388 participants who worked from home during the COVID-19 pandemic, in five countries: China (75), Germany (47), Israel (105), the Netherlands (59), and the US (102). The criteria for selecting those five countries were the following: (a) availability of national-level data (see Measures section for more details); (b) representing variation in relation to cultural optimism; (c) access to individual-level data. To participate in the study, individuals had to be full-time employees and to have worked from home for at least two weeks prior to completing the survey. To achieve a diverse and balanced sample (in terms of age, gender, parental situation, and prior experience working from home) who met these criteria, we used a snowball sampling technique, starting with the networks of the three authors [106]. Specifically, we mapped the target population, and identified participants who would be instructed to recruit other participants from different subgroups to appear in the final sample. Such approach has been used in other cross-national studies (e.g., [107]). IRB approval was obtained for the study protocol. Participants received an e-mail with a link to a secure website where they could complete the survey. The survey included 70 items and took approximately 10 min to complete. In the cover letter, respondents were informed that participation was voluntary, and that data would be kept confidential. They were asked to sign consent before filling out the questionnaire.

The average age of participants was 38.55 (SD = 13.38); 64.7% were female. A percentage of 56.4% of participants had kids under 18. The majority (91%) had attained some level of higher education (bachelor's degree = 33.6%, master's degree = 35.9%, doctoral degree = 9.4%), and 41.8% of participants had some experience working from home prior to the COVID-19 outbreak.

3.2. Measures

Unless otherwise stated, all items were answered using a 5-point Likert scale, with anchors at "strongly disagree" (1) and "strongly agree" (5).

Sustainability **2020**, 12, 9773 9 of 21

Trait optimism was measured using an 8-item scale by Gavrilov-Jerković et al. [108]. Sample items: "I master difficult problems" and "I am facing my future in an optimistic way" ($\alpha = 0.83$).

WFH outcome expectations were measured using a 4-item scale specifically designed for this study, building on previous research that applied a domain-specific approach for studying situational expectations in different contexts such as health, family, and finances [43]. The four items: WFH amid the COVID-19 pandemic helps "...to keep me and my family safe and healthy," "...to sustain organizational performance," " ... to keep public safety and health," and " ... to preserve my financial security" ($\alpha = 0.74$).

Cultural optimism was measured with the index of country optimism formulated by Baranski, Sweeny, Gardiner, Project, and Funder [99]. The index is based on a country-level aggregation of 6 items from the Life Orientation Test-Revised (LOT-R; Carver, Scheier and Segerstrom [77]), after addressing measurement equivalence across countries (for more information regarding the index and procedure, please see Baranski, Sweeny, Gardiner, Project and Funder [99]). Sample item: "In uncertain times, I usually expect the best" ($\alpha = 0.78$). Average cultural optimism found in 60 countries was 3.41, ranging from 3.08 (Singapore) to 3.87 (Estonia) Baranski, Sweeny, Gardiner, Project and Funde [99]. Cultural optimism scores for the countries in our sample: China: 3.41; Germany: 3.37; Israel: 3.66; Netherlands: 3.30; US: 3.22.

WFH adjustment was measured using a 5-item scale by Raghuram, Garud, Wiesenfeld and Gupta [20]. Sample items: "WFH allows me to perform my job better than I ever could when I worked in the office" and "If I were now given the choice to return to traditional office environment (i.e., no longer WFH), I would be very unlikely to do so" ($\alpha = 0.81$).

Control variables. To rule out spurious relations, we controlled for age, gender, number of kids under 18, and previous experience with WFH (yes/no) as control variables at the individual level. Additionally, we coded country GDP per capita and labor force participation (% from the total number of civilian working age population) as country-level covariates. Data for these variables were taken from the World Bank database (2019) [109] (GDP per capita mean = 44,262, SD = 18,758 billion USD; Labor force participation mean = 63.82%, SD = 2.32).

3.3. Preliminary Tests for Data Quality

Measurement equivalence. One of the challenges in cross-cultural research is measurement equivalence across cultural groups, which refers to whether or not the study concepts are defined in the same way across cultures. If measurement equivalence exists, an instrument is said to have the same meaning across countries [110]. To test the measurement equivalence of trait optimism and WFH adjustment, we used the procedure of Meta-Analytic Structural Equation Modeling (MASEM), which is a suitable estimator for data with three countries or more [111,112]. The results' fit indices were TLI = 0.93 and CFI = 0.92, indicating no measure invariance problem [113].

Common method bias test. Although we used three different data sources in this study (survey at the individual level; Baranski, Sweeny, Gardiner, Project, and Funder [99] data on country optimism at the national level; and World Bank data for the national-level covariates), the independent and dependent variables were obtained from the same source (survey), raising concerns regarding a potential common method bias effect. Yet, as several studies have suggested that self-report data may be subject to common method bias (for example, see a recent review concluding that carefully collected subjective data can be as valid as objective data [114]). To further reduce the risk of common method variance, respondents were guaranteed anonymity, and we located the measures for the independent and dependent variables at different sections of the survey [115]. Finally, we statistically examined the potential effect of common method bias using the Harman one-factor analysis [116]. The first factor in our data explained only 25.02% of the variance, suggesting that common method bias was unlikely to confound the interpretations of our results.

3.4. Analytic Strategy

The hypothesized model (see Figure 1) consisted of a hierarchical structure, with each individual (Level 1) nested in a corresponding country (Level 2). Therefore, multilevel regression modeling was applied to estimate the hypothesized relationships, using Mplus 8.0 [111]. We should note that due to the low number of Level 2 units (countries), we followed McNeish's [117] recommendation to use Bayesian methods. Baldwin and Fellingham [118], McNeish and Stapleton [119], and Gelman [120] showed that Bayesian methods can produce unbiased estimates of variance components with as few as 3 units at the highest level, confirming that in the current study, with 5 units at Level 2, Bayesian analysis should be unbiased. In addition, and to avoid assigning disproportionate weight to countries with larger samples, we counterweighted the indicators by sample size (see [112,121]).

To test Hypothesis 1, we formulated a Bayesian multilevel regression analysis. At Level 1, we specified the independent and dependent variables (trait optimism and WFH adjustment), and individual-level control variables (age, gender, number of kids under 19, and prior WFH experience). At Level 2, we specified country-level control variables (GDP and labor force participation). To test Hypothesis 2 (the mediation hypothesis), we formulated an indirect Bayesian multilevel regression analysis. We ran the analysis twice (with and without the indirect effect of trait optimism via WFH outcome expectations), to establish the magnitude of the indirect effect (none, partial or full indirect effect). Finally, to test Hypothesis 3, we formulated a Bayesian multilevel regression analysis with main effects and cross-level interaction effect. At Level 1, we specified trait optimism, WFH adjustment, WFH outcome expectations, and indivudual-level control variables. At Level 2, we specified cultural optimism and country-level control variables. To facilitate the interpretation of the findings, we first examined the main effects of trait optimism and cultural optimism on WFH adjustments. We then examined the interaction effect of trait optimism and cultural optimism on WFH adjustments, also including a graphical display. In all our analyses, we included overall pseudo R² $(\sim R^2)$ and incremental pseudo R^2 ($\Delta \sim R^2$) for the models; these estimates are based on proportional reduction of Level 1 and Level 2 errors owing to predictors in the model [122].

4. Results

Means, standard deviations, and correlations among the variables are presented in Table 1.

Hypothesis 1 predicted a positive relationship between trait optimism and WFH adjustment. The results, shown in Table 2, support this hypothesis, indicating that optimism is positively associated with WFH adjustment (0.23 **).

Hypothesis 2 predicted that the relationship between trait optimism and WFH adjustment would be partly mediated by WFH outcome expectations. Supporting this hypothesis, the results (Table 3) demonstrate a significant indirect effect. Adding the indirect effect resulted in a decrease (from 0.22 ** to 0.14 **) in the coefficient of the direct effect (the effect of trait optimism on WFH adjustment), and an increase of 8% in the amount of variance in WFH adjustment that is captured by predictors, resulting in a total of 25% of the variance (see Models 1 and 2 in Table 3).

Finally, Hypothesis 3 suggested that the relationship between trait optimism and WFH adjustment would be moderated by cultural optimism. The results, shown in Table 4, support this moderation effect (the interaction term was positive and significant; 0.17 **).

Table 1. Descriptive statistics and correlations.

	Variable	Mean	SD	1	2	3	4	5	6	7	8
1.	Trait optimism	3.88	0.65								
2.	WFH adjustment	2.73	0.90	0.24 **							
3.	WFH outcome expectations	3.37	0.89	0.26 **	0.25 **						
4.	Cultural optimism	3.41	1.69	0.05	0.12 *	0.42 **					
5.	Age	38.55	13.39	0.08	0.04	-0.16 **	0.15 **				
6.	Gender ¹	1.38	0.48	0.10	0.06	0.06	0.05	0.16 **			
7.	Number of kids under 18	1.15	1.35	0.03	0.01	-0.15 **	0.23 **	0.12 **	0.15 **		
8.	WFH experience ²	1.42	0.49	0.12 *	0.22 **	-0.09	0.06	0.05	0.12 **	0.14 **	
9.	GDP	44,262.73	18758.64	0.04	0.04	0.37 **	-0.58 **	-0.05	-0.01	0.04	
10.	LFP ³	63.82	2.30	-0.04	-0.05	-0.28 **	0.57 **	0.21 **	-0.02	-0.06	-0.38 **

n = 388. Country-level means assigned down to individual level. * p < 0.05 ** p < 0.01. Two-tailed test; ¹ dummy variable. 1 = female (65.2%) and 2 = male (34.8%); ² dummy variable. 1 = yes (42%) and 2 = no (58%); ³ LFP = labor force participation (%). WFH, work from home.

Table 2. The main effect of optim	nism on WFH adjustment
--	------------------------

	WFH Adjustment
Level 1 main effects:	
Age	0.03 (0.02)
Gender	0.04 (0.01)
Number of kids under 18	0.01 (0.01)
WFH experience	0.21 ** (0.07)
Trait optimism	0.23 ** (0.07)
Level 2 main effects:	
GDP "	0.04 (0.02)
Labor force participation	-0.02(0.01)
$\sim R^2$	0.15

n = 388 individuals (level 1) in five countries (level 2). ** < 0.01.

Table 3. The indirect effect of optimism on WFH Adjustment via WFH outcome expectations.

WFH Adjus	tment	
	¹ Model 1	² Model 2
Level 1 main effects:		
Age	0.03 (0.02)	0.03 (0.02)
Gender	0.03 (0.01)	0.03 (0.01)
Number of kids under 18	0.01 (0.01)	0.01 (0.01)
WFH experience	0.20 ** (0.06)	0.20 ** (0.06)
WFH outcome expectations	0.26 ** (0.07)	0.21 ** (0.06)
Trait optimism	0.22 ** (0.06)	0.14 ** (0.04)
Level 2 main effect:		
GDP "	0.04 (0.02)	0.03 (0.01)
Labor force participation	-0.03 (0.01)	-0.03 (0.01)
Level 1 indirect effects:		
Trait optimism via WFH outcome expectations		0.17 ** (0.06)
\sim R ²	0.17	0.25
$\Delta \sim R^2$		0.08

n=388 individuals (level 1) in five countries (level 2 ** < 0.01. \(^1\) Model includes controls and direct main effects \(^2\) Model includes controls, direct main effects and indirect effect.

Table 4. Moderating effect of cultural optimism on the relationship between trait optimism and WFH adjustment.

WFH Adjustment				
Variables:	¹ Model 1	² Model 2		
Level 1 main effects:				
Age	0.03 (0.02)	0.03 (0.02)		
Gender	0.04 (0.01)	0.04 (0.01)		
Number of Kids under 18	0.01 (0.01)	0.01 (0.01)		
WFH experience	0.20 ** (0.06)	0.20 ** (0.06)		
Trait optimism	0.21 *** (0.07)	0.19 ** (0.06)		
Level 2 main effects:				
GDP ["]	0.03 (0.02)	0.02 (0.01)		
Labor Force Participation	-0.02(0.01)	-0.02(0.01)		
Cultural Optimism (CO)	0.17 ** (0.06)	0.15 ** (0.06)		
Interactions:				
CO × Optimism		0.21 ** (0.08)		
$\sim R^2$	0.19	0.24		
$\Delta \sim R^2$		0.05		

n=388 individuals (level 1) in five countries (level 2). ** < 0.01. ¹ Model includes controls and main effects; ² Model includes controls, main effects and cross-level interaction.

Figure 2 graphically illustrates the association of trait optimism with WFH adjustment, as a function of high (+1 SD) and low (-1 SD) levels of cultural optimism. As this figure suggests, the relationship between trait optimism and WFH adjustment is stronger under conditions of high (vs. low) cultural optimism, further supporting Hypothesis 3.

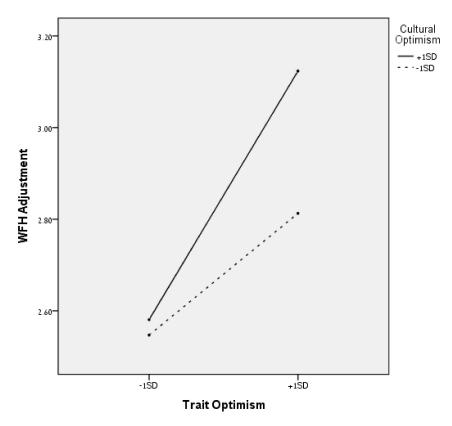


Figure 2. Moderating effect of cultural optimism on the relationship between trait optimism and WFH adjustment.

Summing up the results above, we found that, in line with our hypotheses: (1) trait optimism was associated with WFH adjustment; (2) this relationship was partially mediated by WFH outcome expectations; (3) the association between trait optimism and WFH adjustment was moderated by cultural optimism, such that trait optimism was more strongly related to WFH adjustment under high (vs. low) cultural optimism.

To examine the model as a whole, we tested for a moderated-mediation effect [123]. This integrative approach enabled us to accurately estimate how the relative sizes of the indirect effect of the independent variable on the dependent variable, via the mediator, varied under different levels of the moderator. The model fit indices for the integrated model showed a good fit (RMSEA = 0.05, NFI = 0.92). Specifically, the association between trait optimism and WFH adjustment via WFH outcome expectations was stronger at high (+1 SD) levels of cultural optimism compared with low (-1 SD) levels of cultural optimism, lending further support to our theoretical model (Figure 1).

5. Discussion

The capacity of an organization to sustain itself through a crisis, as well as to benefit from WFH in routine times, is dependent on its employees' capacity to successfully transition, or adjust, to a WFH work arrangement [20]. Accordingly, it is crucial to identify factors that facilitate WFH adjustment. This study explored the role of optimism in the success of employees' WFH adjustment in a crisis, specifically, the COVID-19 pandemic.

Regarding the direct relationship we observed between trait optimism and WFH adjustment (Hypothesis 1), our results reinforce previous studies that suggested a positive link between personality traits—including optimism—and adjustment in other contexts [35,38]. In particular, our results may suggest that the flexibility and resilience embedded in optimism [124] supported teleworkers' ability to adjust to alternate work arrangements necessitated by the unusual circumstances of COVID-19.

Our results regarding factors that mediate or moderate the effect (Hypotheses 2 and 3) help to explain how trait optimism advances WFH adjustment in a crisis. Specifically, our findings that expectations regarding WFH outcomes partly mediated the trait-adjustment relationship confirm the importance of positive situational expectations in facilitating adjustment, while revealing a relationship between trait optimism and the presence of such expectations [84]. Our results suggest that optimistic individuals, who are less likely to withdraw or disengage attempts at achieving their goals when experiencing adverse circumstances, are also more likely to expect their actions (i.e., WFH) to result in positive health or financial outcomes—so as to "make lemonade out of lemons." These positive expectations, in turn, enhance their WFH adjustment.

Our focus on country-level cultural optimism as a moderator of the effect was motivated by the global nature of COVID-19: The pandemic has created disruptions to organizations across the globe, such that it was important to account for differences in national-level variables, and to examine how employees around the world are responding to the same external event. With this approach, we were able to embody the dynamic relations between the individual worker, the specific situation, and the broader environment. More broadly, our international focus addresses Ji, Zhang, Usborne, and Guan's [101] proposition that research on optimism across cultures should "take into consideration specific contextual factors, such as the valence of the events (positive or negative), and the realistic nature of the events" (p. 32). Indeed, cultural optimism, that is, the collective level of shared positive expectations of a nation, was found to moderate the trait-adjustment association, such that trait optimism was more strongly associated with WFH adjustment in countries that are more optimistic as a whole.

The accumulated effect of the two optimism constructs (trait and cultural) can be explained by social contingency theory [125]. Social contagion occurs when individuals use the beliefs or behaviors of others as informational cues, and thus tend to act in a similar way. Social contagion is driven specifically by ambiguous situations. In an ambiguous situation, such as the sudden transition to WFH due to COVID-19, individuals will look to others for information about what to believe or do. Collective (cultural) optimism provides employees with important information that helps them to relieve some of the ambiguity surrounding COVID-19, and also instills in them the urgency to take actions to weather the crisis—in addition to identifying legitimate means of action, such as engaging whole-heartedly in WFH [94], p. 7. Thus, cultures of high collective optimism endorse and validate individuals' own optimism and reactions to WFH, thereby promoting effective coping strategies and better adjustment to WFH.

5.1. Theoretical and Practical Implications

Our study contributes to the extant literature on WFH adjustment in two ways. First, we bring the concept of optimism to the realm of WFH adjustment. Second, we combine micro and macro-level variables, including personality traits, situational expectations and cultural values. This comprehensive model advances our understanding of the mechanisms through which the relationship between optimism and WFH adjustment occurs. Conceptually, our study marks the role of unique expectations brought about by a given situation, as well as the role of fit between individual characteristics and cultural characteristics, in the ability of employees to adjust to WFH. Indeed, Figure 2 graphically illustrates that the highest level of WFH adjustment is observed under conditions of high trait optimism and high collective optimism. This is key because most previous studies on WFH adjustment have focused on a single level of analysis, mostly individual employees [34].

Practically, our findings reveal that organizations, especially multinational firms, should take their employees' personality traits and cultural environments into account when formulating WFH arrangements in times of crisis as well as routine times. That is, managers should be aware that employees with different levels of trait optimism may adjust differently to WFH, and that these differences are likely to be further amplified in countries with high country-level optimism. As noted above, social contagion can help to explain the adoption and diffusion of ideas and beliefs [126]. Prior research in social psychology—also among work peers—has specifically discussed the potential contagious effect of optimism [126,127]. Drawing from this past research and our findings, organizations may think of ways to leverage the possible impact of their optimistic employees in fostering alternative work arrangements. Optimism may also be an important factor to consider in the selection of employees and managers [128]. Established measures, like the one used in this study [108] as well as others (e.g., the PsyCap Questionnaire; [129]) could be used in the recruitment process.

With regard to the distinction between crisis and routine circumstances, it is interesting to reconsider a recent prediction by Peretz et al. [130]. These researchers concluded that "in the future, it is possible that increased globalization will result over time in an increase in workplace flexibility generally, along with a concomitant increase in the acceptability and use of flexible work arrangement" (such as WFH) (p. 198). The unexpected, unprecedented COVID-19 outbreak has changed the reality in which this prediction was put forward—such that the voluntary WFH arrangements common to the majority of workplaces were replaced with a mandatory, mass transition to WFH, rendering the question of the "acceptability" of such arrangements largely moot. Today, managers must grapple with the challenge of supporting "forced WFH" employees. Accordingly, they should familiarize themselves with the personal profile that is most adjustable to WFH and should help to advance training programs that will enable employees to cope better with disruptive situations to facilitate more effective and faster transition. Some evidence exists on practical methods aimed at leveraging and developing employees' optimism (e.g., Schneider's three-step process [131,132]). Again, such practices should take into account country-level cultural characteristics.

5.2. Limitations and Suggestions for Future Research

This study has several limitations, possibly offering avenues for future research. First, while we employed different data sources for testing the hypotheses, as described in the Methods section, data on trait optimism, expectations about WFH benefits, and WFH adjustment were all obtained via survey. Future research should consider data collected from additional sources; one possibility would be to assess employees' WFH adjustment from the point of view of the supervisor or colleagues. Second, our findings of the integrative multi-level model show that micro- and macro-level variables are both important in understanding WFH adjustment. Future studies might add to the model another layer, a meso level of analysis, investigating organization effects on WFH adjustment. Consistent with Kossek, Lautsch, and Eaton [15], it would be useful to explore, for example, how organizational contingencies such as organizational culture and structure moderate the effect of trait optimism and WFH adjustment. Finally, our study used data collected in five countries. Although these five countries represent variation in terms of cultural optimism, and the statistical analysis conducted in this study overcame the limitation of a small sample (see Methods), in future research it would be useful to include more countries from other regions of the world. Apart from providing a more inclusive picture, this would help organizations to fine-tune the appropriate managerial systems that can enhance employee adjustment to WFH. Comparison between and within regions is a promising avenue for future research that aims to advance the discussion on cultural influences on WFH.

6. Conclusions

To our knowledge, this study is among the first to focus on the effects of personality traits on WFH adjustment. We drew on the P-E fit theory (and its predecessor, the TWA) as our theoretical hook, and focused on WFH adjustment specifically in a crisis. Using a multilevel design, our findings

shed light on two contextual mechanisms with which trait optimism relates to WFH adjustment, namely situational expectations and national culture.

Author Contributions: Conceptualization; Methodology; Project administration; Writing—original draft; Writing—review & editing M.B., H.P. and K.T.-L. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Conflicts of Interest: The authors declare no conflict of interest.

References

- 1. Burke, R.J.; Ng, E. The changing nature of work and organizations: Implications for human resource management. *Hum. Resour. Manag. Rev.* **2006**, *16*, 86–94. [CrossRef]
- 2. Stone, D.L.; Deadrick, D.L.; Lukaszewski, K.M.; Johnson, R. The influence of technology on the future of human resource management. *Hum. Resour. Manag. Rev.* **2015**, 25, 216–231. [CrossRef]
- 3. Raghuram, S.; Hill, N.S.; Gibbs, J.L.; Maruping, L.M. Virtual work: Bridging research clusters. *Acad. Manag. Ann.* **2019**, *13*, 308–341. [CrossRef]
- 4. Kossek, E.E.; Lewis, S.; Hammer, L.B. Work—Life initiatives and organizational change: Overcoming mixed messages to move from the margin to the mainstream. *Hum. Relat.* **2010**, *63*, 3–19. [CrossRef] [PubMed]
- 5. Bailey, D.E.; Kurland, N.B. A review of telework research: Findings, new directions, and lessons for the study of modern work. *J. Organ. Behav.* **2002**, 23, 383–400. [CrossRef]
- 6. Lister, K.; Harnish, T. The state of telework in the US: How individuals, business, and government benefit. *Telework Res. Netw.* **2011**, *1*, 1–27.
- 7. Baruch, Y. The status of research on teleworking and an agenda for future research. *Int. J. Manag. Rev.* **2001**, 3, 113–129. [CrossRef]
- 8. Gajendran, R.S.; Harrison, D.A. The good, the bad, and the unknown about telecommuting: Meta-analysis of psychological mediators and individual consequences. *J. Appl. Psychol.* **2007**, 92, 1524. [CrossRef]
- 9. Hill, E.J.; Hawkins, A.J.; Ferris, M.; Weitzman, M. Finding an extra day a week: The positive influence of perceived job flexibility on work and family life balance. *Fam. Relat.* **2001**, *50*, 49–58. [CrossRef]
- 10. McNall, L.A.; Masuda, A.D.; Nicklin, J.M. Flexible work arrangements, job satisfaction, and turnover intentions: The mediating role of work-to-family enrichment. *J. Psychol.* **2009**, *144*, 61–81. [CrossRef]
- 11. Biron, M.; van Veldhoven, M. When control becomes a liability rather than an asset: Comparing home and office days among part-time teleworkers. *J. Organ. Behav.* **2016**, *37*, 1317–1337. [CrossRef]
- 12. Hartig, T.; Kylin, C.; Johansson, G. The telework tradeoff: Stress mitigation vs. constrained restoration. *Appl. Psychol.* **2007**, *56*, 231–253. [CrossRef]
- 13. Baruch, Y.; Nicholson, N. Home, sweet work: Requirements for effective home working. *J. Gen. Manag.* **1997**, 23, 15–30. [CrossRef]
- 14. Golden, T.D.; Raghuram, S. Teleworker knowledge sharing and the role of altered relational and technological interactions. *J. Organ. Behav.* **2010**, *31*, 1061–1085. [CrossRef]
- Kossek, E.E.; Lautsch, B.A.; Eaton, S.C. Telecommuting, control, and boundary management: Correlates of policy use and practice, job control, and work–family effectiveness. J. Vocat. Behav. 2006, 68, 347–367. [CrossRef]
- 16. Wiesenfeld, B.M.; Raghuram, S.; Garud, R. Communication patterns as determinants of organizational identification in a virtual organization. *Organ. Sci.* **1999**, *10*, 777–790. [CrossRef]
- 17. Vilhelmson, B.; Thulin, E. Who and where are the flexible workers? Exploring the current diffusion of telework in Sweden. *New Technol. Work Employ.* **2016**, *31*, 77–96. [CrossRef]
- Eurostat. Employed Persons Working from Home as a Percentage of the Total Employment, by Sex, Age and Professional Status. Available online: https://ec.europa.eu/eurostat/web/products-eurostat-news/-/DDN-20180620-1 (accessed on 22 November 2020).
- 19. Global Workforce Analytics. Available online: https://www.flexjobs.com/2017-State-of-Telecommuting-US/ (accessed on 22 November 2020).
- 20. Raghuram, S.; Garud, R.; Wiesenfeld, B.; Gupta, V. Factors contributing to virtual work adjustment. *J. Manag.* **2001**, *27*, 383–405. [CrossRef]

21. Evans, H. The Influence of Personality Traits and ICT Use on the Boundary Management of Home-Based Teleworkers. Available online: https://repository.lboro.ac.uk/articles/The_influence_of_personality_traits_and_ICT_use_on_the_boundary_management_of_home-based_teleworkers/9496310/1 (accessed on 22 November 2020).

- 22. Shin, Y. A person-environment fit model for virtual organizations. J. Manag. 2004, 30, 725–743. [CrossRef]
- 23. Cascio, W.F. Virtual workplaces: Implications for organizational behavior. J. Organ. Behav. 1999, 6, 1.
- 24. Carver, C.S.; Scheier, M.F.; Snyder, C.; Lopez, S. *Handbook of Positive Psychology*; Oxford University Press: New York, NY, USA, 2002.
- 25. Dahling, J.J.; Librizzi, U.A. Integrating the theory of work adjustment and attachment theory to predict job turnover intentions. *J. Career Dev.* **2015**, *42*, 215–228. [CrossRef]
- 26. Dawis, R.V.; Lofquist, L.H. *A Psychological Theory of Work Adjustment: An Individual-Differences Model and Its Applications*; University of Minnesota press: Minneapolis, MN, USA, 1984.
- 27. Caplan, R.D. Person-environment fit theory and organizations: Commensurate dimensions, time perspectives, and mechanisms. *J. Vocat. Behav.* **1987**, *31*, 248–267. [CrossRef]
- 28. Edwards, J.R.; Caplan, R.D.; Van Harrison, R. Person-environment fit theory. Theor. Organ. Stress 1998, 28, 67.
- 29. Hesketh, B. Toward a better adjusted theory of work adjustment. J. Vocat. Behav. 1993, 43, 75–83. [CrossRef]
- 30. Hoffman, B.J.; Woehr, D.J. A quantitative review of the relationship between person–organization fit and behavioral outcomes. *J. Vocat. Behav.* **2006**, *68*, 389–399. [CrossRef]
- 31. Kristof-Brown, A.L.; Zimmerman, R.D.; Johnson, E.C. Consequences of indeviduals fit at work: A meta-analysis of person-organization, person-group, and person-supervisor fit. *Pers. Psychol.* **2005**, *58*, 281–342. [CrossRef]
- 32. Kossek, E.E.; Ruderman, M.N.; Braddy, P.W.; Hannum, K.M. Work–nonwork boundary management profiles: A person-centered approach. *J. Vocat. Behav.* **2012**, *81*, 112–128. [CrossRef]
- 33. Dekel, R.; Nuttman-Shwartz, O.; Lavi, T. Shared traumatic reality and boundary theory: How mental health professionals cope with the home/work conflict during continuous security threats. *J. Couple Relatsh. Ther.* **2016**, *15*, 121–134. [CrossRef]
- 34. Gilson, L.L.; Maynard, M.T.; Young, N.C.J.; Vartiainen, M.; Hakonen, M. Virtual teams research: 10 years, 10 themes, and 10 opportunities. *J. Manag.* **2015**, *41*, 1313–1337. [CrossRef]
- 35. Raghuram, S.; Wiesenfeld, B.; Garud, R. Technology enabled work: The role of self-efficacy in determining telecommuter adjustment and structuring behavior. *J. Vocat. Behav.* **2003**, *63*, 180–198. [CrossRef]
- 36. Schulze, J.; Krumm, S. The "virtual team player" A review and initial model of knowledge, skills, abilities, and other characteristics for virtual collaboration. *Organ. Psychol. Rev.* **2017**, *7*, 66–95.
- 37. McCrae, R.; Costa, P., Jr. Personality in Adulthood; Guilford Press: New York, NY, USA, 1990.
- 38. Park, C.L.; Moore, P.J.; Turner, R.A.; Adler, N.E. The roles of constructive thinking and optimism in psychological and behavioral adjustment during pregnancy. *J. Personal. Soc. Psychol.* **1997**, *73*, 584. [CrossRef]
- 39. Nes, L.S.; Evans, D.R.; Segerstrom, S.C. Optimism and College Retention: Mediation by Motivation, Performance, and Adjustment 1. *J. Appl. Soc. Psychol.* **2009**, *39*, 1887–1912. [CrossRef]
- 40. Topa, G.; Pra, I. Retirement adjustment quality: Optimism and self-efficacy as antecedents of resource accumulation. *Appl. Res. Qual. Life* **2018**, *13*, 1015–1035. [CrossRef]
- 41. Armor, D.A.; Taylor, S.E. Situated optimism: Specific outcome expectancies and self-regulation. In *Advances in Experimental Social Psychology*; Elsevier: Amsterdam, The Netherlands, 1998; pp. 309–379.
- 42. Benyamini, Y.; Raz, O. "I can tell you if I'll really lose all that weight": Dispositional and situated optimism as predictors of weight loss following a group intervention. J. Appl. Soc. Psychol. 2007, 37, 844–861. [CrossRef]
- 43. Chang, E.C.; Bodem, M.R.; Sanna, L.J.; Fabian, C.G. Optimism–pessimism and adjustment in college students: Is there support for the utility of a domain-specific approach to studying outcome expectancies? *J. Posit. Psychol.* 2011, 6, 418–428. [CrossRef]
- 44. Scheier, M.F.; Carver, C.S. A model of behavioral self-regulation: Translating intention into action. In *Advances in Experimental Social Psychology*; Elsevier: Amsterdam, The Netherlands, 1988; pp. 303–346.
- 45. Scheier, M.F.; Carver, C.S. Effects of optimism on psychological and physical well-being: Theoretical overview and empirical update. *Cogn. Ther. Res.* **1992**, *16*, 201–228. [CrossRef]
- 46. Taylor, S.E.; Kemeny, M.E.; Aspinwall, L.G.; Schneider, S.G.; Rodriguez, R.; Herbert, M. Optimism, coping, psychological distress, and high-risk sexual behavior among men at risk for acquired immunodeficiency syndrome (AIDS). *J. Personal. Soc. Psychol.* **1992**, *63*, 460. [CrossRef]

47. Lee, Y.-T.; Seligman, M.E. Are Americans more optimistic than the Chinese? *Personal. Soc. Psychol. Bull.* **1997**, 23, 32–40. [CrossRef]

- 48. Donnelly, R.; Johns, J. Recontextualising remote working and its HRM in the digital economy: An integrated framework for theory and practice. *Int. J. Hum. Resour. Manag.* **2020**, 1–22. [CrossRef]
- 49. Peters, P.; den Dulk, L. Cross cultural differences in managers' support for home-based telework: A theoretical elaboration. *Int. J. Cross Cult. Manag.* **2003**, *3*, 329–346. [CrossRef]
- 50. Peters, P.; Ligthart, P.E.; Bardoel, A.; Poutsma, E. 'Fit'for telework'? Cross-cultural variance and task-control explanations in organizations' formal telework practices. *Int. J. Hum. Resour. Manag.* **2016**, 27, 2582–2603. [CrossRef]
- 51. Alesi, P. Building enterprise-wide resilience by integrating business continuity capability into day-to-day business culture and technology. *J. Bus. Contin. Emerg. Plan.* **2008**, *2*, 214–220.
- 52. Low, S.P.; Liu, J.; Sio, S. Business Continuity Management in Large Construction Companies in Singapore. Available online: https://www.emerald.com/insight/content/doi/10.1108/09653561011038011/full/html?journalCode=dpm (accessed on 20 November 2020).
- 53. Lam, N.S.; Pace, K.; Campanella, R.; LeSage, J.; Arenas, H. Business return in New Orleans: Decision making amid post-Katrina uncertainty. *PLoS ONE* **2009**, *4*, e6765. [CrossRef]
- 54. Alesch, D.J.; Holly, J.N.; Mittler, E.; Nagy, R. Organizations at Risk: What Happens When Small Businesses and Not-For-Profits Encounter Natural Disasters? Available online: http://www.chamberofecocommerce.com/images/Organizations_at_Risk.pdf (accessed on 20 November 2020).
- 55. Donnelly, N.; Proctor-Thomson, S.B. Disrupted work: Home-based teleworking (HbTW) in the aftermath of a natural disaster. *New Technol. Work Employ.* **2015**, *30*, 47–61. [CrossRef]
- 56. Hoang, A.T.; Nickerson, R.C.; Beckman, P.; Eng, J. Telecommuting and corporate culture: Implications for the mobile enterprise. *Inf. Knowl. Syst. Manag.* **2008**, *7*, 77–97.
- 57. Pnevmatikou, A.; Karlaftis, M. Subway Closures and Traveler Alternative Mode Choices: An Empirical Investigation. Available online: https://trid.trb.org/view/1290204 (accessed on 20 November 2020).
- 58. Overmyer, S.P. *Implementing Telework: Lessons Learned from four Federal Agencies*; IBM Center for the Business of Government: Arlington, VA, USA, 2011.
- 59. Roitz, J.; Jackson, E. AT&T adds business continuity to the long list of telework's advantages. *J. Organ. Excell.* **2006**, 25, 3–12.
- 60. Pohl, N. Where is Wall Street? Financial Geography after 09/11. Ind. Geogr. 2004, 2, 72–93.
- 61. Smith, R.D.; Keogh-Brown, M.R.; Barnett, T. Estimating the economic impact of pandemic influenza: An application of the computable general equilibrium model to the UK. *Soc. Sci. Med.* **2011**, *73*, 235–244. [CrossRef]
- 62. Keogh-Brown, M.R.; Smith, R.D.; Edmunds, J.W.; Beutels, P. The macroeconomic impact of pandemic influenza: Estimates from models of the United Kingdom, France, Belgium and The Netherlands. *Eur. J. Health Econ.* **2010**, *11*, 543–554. [CrossRef]
- 63. World Health Organization. Naming the Coronavirus Disease (COVID-19) and the Virus that Causes It. Available online: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/naming-the-coronavirus-disease-(covid-2019)-and-the-virus-that-causes-it (accessed on 20 November 2020).
- 64. World Health Organization. WHO Director-General's Opening Remarks at the Media Briefing on COVID-19—11 March 2020. Available online: https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020 (accessed on 11 March 2020).
- 65. Brooks, S.K.; Webster, R.K.; Smith, L.E.; Woodland, L.; Wessely, S.; Greenberg, N.; Rubin, G.J. The psychological impact of quarantine and how to reduce it: Rapid review of the evidence. *Lancet* 2020, 395, 912–920. [CrossRef]
- 66. Rossi, R.; Socci, V.; Talevi, D.; Mensi, S.; Niolu, C.; Pacitti, F.; Di Marco, A.; Rossi, A.; Siracusano, A.; Di Lorenzo, G. COVID-19 pandemic and lockdown measures impact on mental health among the general population in Italy. *Front. Psychiatry* **2020**, *11*, 1–6. [CrossRef] [PubMed]
- 67. Van der Velden, P.G.; Contino, C.; Das, M.; van Loon, P.; Bosmans, M.W. Anxiety and depression symptoms, and lack of emotional support among the general population before and during the COVID-19 pandemic. A prospective national study on prevalence and risk factors. *J. Affect. Disord.* **2020**, 277, 540–548. [CrossRef] [PubMed]
- 68. Robertson, E.; Hershenfield, K.; Grace, S.L.; Stewart, D.E. The psychosocial effects of being quarantined following exposure to SARS: A qualitative study of Toronto health care workers. *Can. J. Psychiatry* **2004**, 49, 403–407. [CrossRef] [PubMed]

69. Cauchemez, S.; Ferguson, N.M.; Wachtel, C.; Tegnell, A.; Saour, G.; Duncan, B.; Nicoll, A. Closure of schools during an influenza pandemic. *Lancet Infect. Dis.* **2009**, *9*, 473–481. [CrossRef]

- 70. Secon, H.; Woodward, A.; Mosher, D. A Comprehensive Timeline of the New Coronavirus Pandemic, from China's First COVID-19 Case to the Present. Available online: https://www.businessinsider.nl/coronavirus-pandemic-timeline-history-major-events-2020-3/ (accessed on 20 November 2020).
- 71. Thomas, D.; Campbell, P.; Hancock, A. Companies from ford to Unilever send staff to work from home. *Retrieved March* **2020**, *13*, 2020.
- 72. Wei, T.; Wong, L. Firms urged to stagger work hours, let staff work from home. Retrieved March 2020, 14, 2020.
- 73. Jansen, K.J.; Kristof-Brown, A. Toward a multidimensional theory of person-environment fit. *J. Manag. Issues* **2006**, *18*, 193–212.
- 74. Kristof-Brown, A.L.; Jansen, K.J.; Colbert, A.E. A policy-capturing study of the simultaneous effects of fit with jobs, groups, and organizations. *J. Appl. Psychol.* **2002**, *87*, 985. [CrossRef]
- 75. Templer, A.; Armstrong-Stassen, M.; Devine, K.; Solomon, N. Telework and teleworkers. *Adv. Organ. Stud.* **1999**, *1*, 77–98.
- 76. Kane, L.M. Telework and Organizational Citizenship Behaviors: The Underexplored Roles of Social Identity and Professional Isolation. Available online: https://academicworks.cuny.edu/gc_etds/357/ (accessed on 20 November 2020).
- 77. Carver, C.S.; Scheier, M.F.; Segerstrom, S.C. Optimism. Clin. Psychol. Rev. 2010, 30, 879–889. [CrossRef] [PubMed]
- 78. Hanssen, M.; Vancleef, L.; Vlaeyen, J.; Hayes, A.; Schouten, E.; Peters, M. Optimism, motivational coping and well-being: Evidence supporting the importance of flexible goal adjustment. *J. Happiness Stud.* **2015**, *16*, 1525–1537. [CrossRef]
- 79. Radcliffe, N.M.; Klein, W.M. Dispositional, unrealistic, and comparative optimism: Differential relations with the knowledge and processing of risk information and beliefs about personal risk. *Personal. Soc. Psychol. Bull.* **2002**, *28*, 836–846. [CrossRef]
- 80. Geers, A.L.; Wellman, J.A.; Lassiter, G.D. Dispositional optimism and engagement: The moderating influence of goal prioritization. *J. Personal. Soc. Psychol.* **2009**, *96*, 913. [CrossRef] [PubMed]
- 81. Collins, S. Social workers, resilience, positive emotions and optimism. *Practice* **2007**, *19*, 255–269. [CrossRef]
- 82. Strutton, D.; Lumpkin, J. Relationship between optimism and coping strategies in the work environment. *Psychol. Rep.* **1992**, *71*, 1179–1186. [CrossRef] [PubMed]
- 83. Kluemper, D.H.; Little, L.M.; DeGroot, T. State or trait: Effects of state optimism on job-related outcomes. *J. Organ. Behav. Int. J. Ind. Occup. Organ. Psychol. Behav.* **2009**, *30*, 209–231. [CrossRef]
- 84. Trope, Y.; Liberman, N.; Wakslak, C. Construal levels and psychological distance: Effects on representation, prediction, evaluation, and behavior. *J. Consum. Psychol.* **2007**, *17*, 83–95. [CrossRef]
- 85. Bandura, A. Social cognitive theory of self-regulation. *Organ. Behav. Hum. Decis. Process.* **1991**, 50, 248–287. [CrossRef]
- 86. Lehman, D.R.; Chiu, C.-y.; Schaller, M. Psychology and culture. Annu. Rev. Psychol. 2004, 55, 689-714. [CrossRef]
- 87. Ward, C.; Chang, W.C. "Cultural fit": A new perspective on personality and sojourner adjustment. *Int. J. Intercult. Relat.* **1997**, 21, 525–533. [CrossRef]
- 88. Kroeber, A.; Kluckhohn, C.; Untereiner, W. Culture: A Critical Review of Concepts and Definitions. Available online: https://psycnet.apa.org/record/1953-07119-001 (accessed on 20 November 2020).
- 89. Hofstede, G. Culture's Consequences: International Differences in Work-Related Values. Available online: https://us.sagepub.com/en-us/nam/cultures-consequences/book665 (accessed on 20 November 2020).
- 90. Fischer, R.; Chalmers, A. Is optimism universal? A meta-analytical investigation of optimism levels across 22 nations. *Personal. Individ. Differ.* **2008**, 45, 378–382. [CrossRef]
- 91. Peretz, H.; Levi, A.; Fried, Y. Organizational diversity programs across cultures: Effects on absenteeism, turnover, performance and innovation. *Int. J. Hum. Resour. Manag.* **2015**, *26*, 875–903. [CrossRef]
- 92. Delle, E.; Mensah, M.E. The influence of national culture on expatriate work adjustment, intention to leave and organizational commitment. *Eur. J. Bus. Manag.* **2013**, *5*, 1–8.
- 93. Bennett, O. Cultures of optimism. Cult. Sociol. 2011, 5, 301–320. [CrossRef]
- 94. Anglin, A.H.; McKenny, A.F.; Short, J.C. The impact of collective optimism on new venture creation and growth: A social contagion perspective. *Entrep. Theory Pract.* **2018**, 42, 390–425. [CrossRef]
- 95. Lucey, B.M.; Dowling, M. The role of feelings in investor decision-making. J. Econ. Surv. 2005, 19, 211–237. [CrossRef]
- 96. Bandura, A. Personal and collective efficacy in human adaptation and change. Adv. Psychol. Sci. 1998, 1, 51–71.

Sustainability **2020**, 12, 9773 20 of 21

97. Bénabou, R. Groupthink: Collective delusions in organizations and markets. *Rev. Econ. Stud.* **2013**, 80, 429–462. [CrossRef]

- 98. Gallagher, M.W.; Lopez, S.J.; Pressman, S.D. Optimism is universal: Exploring the presence and benefits of optimism in a representative sample of the world. *J. Personal.* **2013**, *81*, 429–440. [CrossRef]
- 99. Baranski, E.; Sweeny, K.; Gardiner, G.; Project, I.S.; Funder, D.C. International Optimism: Correlates and Consequences of Dispositional Optimism across 61 Countries. *J. Personal.* **2020**. [CrossRef] [PubMed]
- 100. Satterfield, J.M. Optimism, culture, and history: The roles of explanatory style, integrative complexity, and pessimistic rumination. In *The Science of Optimism and Hope*; Gillham, J., Ed.; Templeton Foundation Press: West Conshohocken, PA, USA, 2000; pp. 349–378.
- 101. Ji, L.J.; Zhang, Z.; Usborne, E.; Guan, Y. Optimism across cultures: In response to the severe acute respiratory syndrome outbreak. *Asian J. Soc. Psychol.* **2004**, *7*, 25–34. [CrossRef]
- 102. Chang, E.C. Cultural influences on optimism and pessimism: Differences in Western and Eastern construals of the self. In *Optimism and Pessimism: Implications for Theory, Research, and Practice*; American Psychological Association: Washington, DC, USA, 2001; pp. 257–280.
- 103. Hardin, C.D.; Higgins, E.T. Shared Reality: How Social Verification Makes the Subjective Objective. Available online: https://psycnet.apa.org/record/1996-98385-002 (accessed on 20 November 2020).
- 104. Kruglanski, A.W.; Webster, D.M.; Klem, A. Motivated resistance and openness to persuasion in the presence or absence of prior information. *J. Personal. Soc. Psychol.* **1993**, *65*, 861. [CrossRef]
- 105. Sechrist, G.B.; Stangor, C. Perceived consensus influences intergroup behavior and stereotype accessibility. *J. Personal. Soc. Psychol.* **2001**, *80*, 645. [CrossRef]
- 106. Heckathorn, D.D. Respondent-driven sampling: A new approach to the study of hidden populations. *Soc. Probl.* **1997**, *44*, 174–199. [CrossRef]
- 107. Haar, J.M.; Sune, A.; Russo, M.; Ollier-Malaterre, A. A cross-national study on the antecedents of work–life balance from the fit and balance perspective. *Soc. Indic. Res.* **2019**, *142*, 261–282. [CrossRef]
- 108. Gavrilov-Jerković, V.; Jovanović, V.; Žuljević, D.; Brdarić, D. When less is more: A short version of the personal optimism scale and the self-efficacy optimism scale. *J. Happiness Stud.* **2014**, *15*, 455–474. [CrossRef]
- 109. World Bank. GDP and Labor Force Participation. 2019. Available online: https://data.worldbank.org/ (accessed on 22 November 2020).
- 110. Cheung, M.W.-L.; Leung, K.; Au, K. Evaluating multilevel models in cross-cultural research: An illustration with social axioms. *J. Cross-Cult. Psychol.* **2006**, *37*, 522–541. [CrossRef]
- 111. Muthén, L.K.; Muthen, B. Mplus User's Guide: Statistical Analysis with Latent Variables, User's Guide. Available online: https://www.statmodel.com/download/usersguide/MplusUserGuideVer_8.pdf (accessed on 22 November 2020).
- 112. Lazarova, M.; Peretz, H.; Fried, Y. Locals know best? Subsidiary HR autonomy and subsidiary performance. *J. World Bus.* **2017**, *52*, 83–96. [CrossRef]
- 113. Vandenberg, R.J.; Lance, C.E. A review and synthesis of the measurement invariance literature: Suggestions, practices, and recommendations for organizational research. *Organ. Res. Methods* **2000**, *3*, 4–70. [CrossRef]
- 114. Singh, S.; Darwish, T.K.; Potočnik, K. Measuring organizational performance: A case for subjective measures. *Br. J. Manag.* **2016**, *27*, 214–224. [CrossRef]
- 115. Podsakoff, P.M.; MacKenzie, S.B.; Lee, J.-Y.; Podsakoff, N.P. Common method biases in behavioral research: A critical review of the literature and recommended remedies. *J. Appl. Psychol.* **2003**, *88*, 879. [CrossRef] [PubMed]
- 116. Chang, S.J.; Van Witteloostuijn, A.; Eden, L. Common method variance in international business research. *J. Int. Bus. Stud.* **2010**, *41*, 178–184. [CrossRef]
- 117. McNeish, D. On using Bayesian methods to address small sample problems. *Struct. Equ. Modeling Multidiscip. J.* **2016**, 23, 750–773. [CrossRef]
- 118. Baldwin, S.A.; Fellingham, G.W. Bayesian methods for the analysis of small sample multilevel data with a complex variance structure. *Psychol. Methods* **2013**, *18*, 151. [CrossRef]
- 119. McNeish, D.; Stapleton, L.M. Modeling clustered data with very few clusters. *Multivar. Behav. Res.* **2016**, 51, 495–518. [CrossRef]
- 120. Gelman, A. Prior distributions for variance parameters in hierarchical models (comment on article by Browne and Draper). *Bayesian Anal.* **2006**, *1*, 515–534. [CrossRef]

Sustainability **2020**, 12, 9773 21 of 21

121. Cullen, J.B.; Parboteeah, K.P.; Hoegl, M. Cross-national differences in managers' willingness to justify ethically suspect behaviors: A test of institutional anomie theory. *Acad. Manag. J.* **2004**, *47*, 411–421.

- 122. Recchia, A. R-squared measures for two-level hierarchical linear models using SAS. *J. Stat. Softw.* **2010**, 32, 1–9. [CrossRef]
- 123. Bauer, D.J.; Preacher, K.J.; Gil, K.M. Conceptualizing and testing random indirect effects and moderated mediation in multilevel models: New procedures and recommendations. *Psychol. Methods* **2006**, *11*, 142. [CrossRef]
- 124. Nes, L.S.; Segerstrom, S.C. Dispositional optimism and coping: A meta-analytic review. *Personal. Soc. Psychol. Rev.* **2006**, *10*, 235–251. [CrossRef] [PubMed]
- 125. Tetlock, P.E.; Lerner, J.S. *The Social Contingency Model: Identifying Empirical and Normative Boundary Conditions on the Error-and-Bias Portrait of Human Nature. Dual-Process Theories in Social Psychology;* The Guilford Press: New York, NY, USA, 1999; pp. 571–585.
- 126. Iyengar, R.; Van den Bulte, C.; Valente, T.W. Opinion leadership and social contagion in new product diffusion. *Mark. Sci.* **2011**, *30*, 195–212. [CrossRef]
- 127. Olson, K.R. A literature review of social mood. J. Behav. Financ. 2006, 7, 193-203. [CrossRef]
- 128. Hayes, C.T.; Weathington, B.L. Optimism, stress, life satisfaction, and job burnout in restaurant managers. *J. Psychol.* **2007**, *141*, 565–579. [CrossRef]
- 129. Luthans, F.; Youssef, C.M.; Avolio, B.J. *Psychological Capital: Developing the Human Competitive Edge*; Oxford University Press Oxford: Oxford, UK, 2007.
- 130. Peretz, H.; Fried, Y.; Levi, A. Flexible work arrangements, national culture, organisational characteristics, and organisational outcomes: A study across 21 countries. *Hum. Resour. Manag. J.* **2018**, *28*, 182–200. [CrossRef]
- 131. Schneider, S.L. In search of realistic optimism: Meaning, knowledge, and warm fuzziness. *Am. Psychol.* **2001**, 56, 250. [CrossRef]
- 132. Avey, J.B.; Luthans, F.; Jensen, S.M. Psychological capital: A positive resource for combating employee stress and turnover. *Hum. Resour. Manag.* **2009**, *48*, 677–693. [CrossRef]

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



© 2020 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (http://creativecommons.org/licenses/by/4.0/).