



HAL
open science

”The day when the Earth stopped” -How beliefs in the just world affect emotions and job outcomes during the COVID-19 pandemic: comparisons between Brazil and France

Fabiana Queiroga, Amalia Pérez-Nebra, Eva Lira, Vincent Angel, Marilena Bertolino

► To cite this version:

Fabiana Queiroga, Amalia Pérez-Nebra, Eva Lira, Vincent Angel, Marilena Bertolino. ”The day when the Earth stopped” -How beliefs in the just world affect emotions and job outcomes during the COVID-19 pandemic: comparisons between Brazil and France. 2023. hal-04132938

HAL Id: hal-04132938

<https://univ-cotedazur.hal.science/hal-04132938v1>

Preprint submitted on 19 Jun 2023

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L’archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d’enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

"The day when the Earth stopped" – How beliefs in the just world affect emotions and job outcomes during the COVID-19 pandemic: comparisons between Brazil and France

Short title: Beliefs in the just world and job outcomes during COVID-19

Fabiana Queiroga
Université de Lorraine

Amalia R. Pérez-Nebra¹
Eva M. Lira
Universidad de Zaragoza – UniZar
Vincent Angel
Université de Bordeaux

Marilena Bertolino
Université Côte D'Azur

Abstract

The song alluded in the title could be continued by saying that people around the countries criticised the measures to contain COVID-19. Beliefs in a just world (BJW) are related with affective reactions triggered by extreme events. The aim was to test Affective Events Theory (AET) by analysing to what extent work environments have influence on affective experience and job outcomes. Participated 449 teleworkers in Brazil and 236 in France, countries with similar periods of compulsory telework, but that adopted different policies. Results reveal low positive emotions tend to decrease perceived job satisfaction when BJW is high in both contexts. Among French teleworkers, it is also true when we have high negative emotions. BJW directly affects job performance and satisfaction in Brazil, but it is only valid for job satisfaction in France. Results offers support for AET and presents how work environments indirectly influence affective experience and job outcomes.

Keywords: job performance, believe in a just world, emotions at work, teleworking

Highlights

- Teleworkers in Brazil and France perceived a moderate level of job performance.
- In both countries, job satisfaction was regular during the compulsory teleworking.
- BJW works as regulator to diminish the effect of negative emotions in France.
- In Brazil, low positive emotions decrease job satisfaction when BJW is high.

¹ Corresponding author: +34 670 326 355, C. Valentín Carderera, 4, 22003, Huesca, Spain, (e-mail: amaliaraquel.perez@unizar.es).

Introduction

The paper's title alludes to a song by a Brazilian artist who was very popular in the 1970s and 1980s. The song "The day when the Earth stopped", released by Raul Seixas in 1977 (a short biography of the singer can be found at <https://www.ebiografia.com/>), circulated again during the COVID-19 pandemic. The song is about a dream in which the person describes "the day when everyone on the whole planet decided that nobody was going to leave home, as if it were agreed, on the whole planet. That day nobody left home" [free translation]. Putting aside the prophetic part, the description of the "stopped world" in the song brings a strong reflection during the COVID-19 pandemic: do people deserve this pandemic, it means, is it fair that it happens now?

Since World Health Organization declared in March 2020 COVID-19 as a pandemic, different measures have been implemented in countries to contain this extreme event (such as the lockdown) and allow the economy to continue (as compulsory telework)^{1,2}. Such sudden and unexpected changes affect emotions and made people revisit their beliefs³⁻⁵. This emotional and cognitive impact spread its effects on everyday life and the overall existence^{6,7}. Current post-covid realities show that the crises also affected people's thoughts about work, such as work centrality or values⁸. Nevertheless, we still know little about how such unexpected changes and national political decisions might affect work and organisational behaviour⁹.

Different measures were adopted to deal with this extreme event. For instance, European Central-Western countries (such as Austria, France, Germany, Italy, Portugal, Spain, and Switzerland) have applied strict social isolation measures. By contrast, less strict measures have been adopted in Latin American countries (such as Bolivia, Brazil, Paraguay, and Peru), where many face-to-face services remain authorised. Such sanitary politics affected everyday life and how the work in organisations was done. Indeed, overall life satisfaction may have been affected.

Several studies have already demonstrated that overall emotions and affect impact job satisfaction and performance¹⁰⁻¹². Moreover, a recent study showed that emotions due to the pandemic crises were related to job satisfaction and performance¹³.

However, since sanitary politics have presented different restrictive political approaches, we suggest that people's emotions may have been somewhat different depending on these political contexts, and then, work attitudes and behaviour may have been differently affected too. Besides, we suggested that the effect of those politics on people's emotions, and then work attitudes and behaviours, would depend on their trust in the so-called "system". One way to capture this kind of belief that can regulate the effect of a political decision on the psychological experience and the behaviour of people is the concept of Belief in a Just World (BJW)^{5,14}. BJW functions as an adaptive psychological mechanism¹⁵, allowing the individual to maintain a sense of control and confidence in the future. By assuming a connection between effort and outcome, BJW has an underlying idea that people get what they deserve and deserve what they get^{16,17} and then may affect their attitudes and behaviour in different places such as workplace.

Weiss and Copranzano's (1996) Affective Events Theory (AET¹) explain that affective events (such as emotions at work) predict job outcomes (such as job performance and satisfaction) depending on dispositional variables (such as BJW) and the broad context. They indicate that some variance in individual well-being and performance are accounted for by dispositional traits, some by the situation, suggesting a model of variables relationship. The AET model is tested in the present research. To this end, we considered workers in Brazil (lenient sanitary politics in a weak democratic context) and France (restrictive sanitary politics in a robust democratic context), confronted with different policies to contain the pandemic¹⁸ but similar periods of compulsory telework. In general, we assumed in the present study that the measures to

contain the pandemic crises in different countries triggered different work events (such as compulsory teleworking) and different affective (emotions) which influence job satisfaction and performance^{19,20}. At the same time, belief in the just world is a dispositional personal resource that manages people's perceived emotions^{5,21,22} and job outcomes¹⁰.

Figure 1 represents a fundamental idea of the Affective Events Theory, where affective levels fluctuate over time due to endogenous (such as dispositions) or exogenous (such as relevant events) components. Work environments are seen as having an indirect influence on affective experience, which are both attitudinal and behavioural.

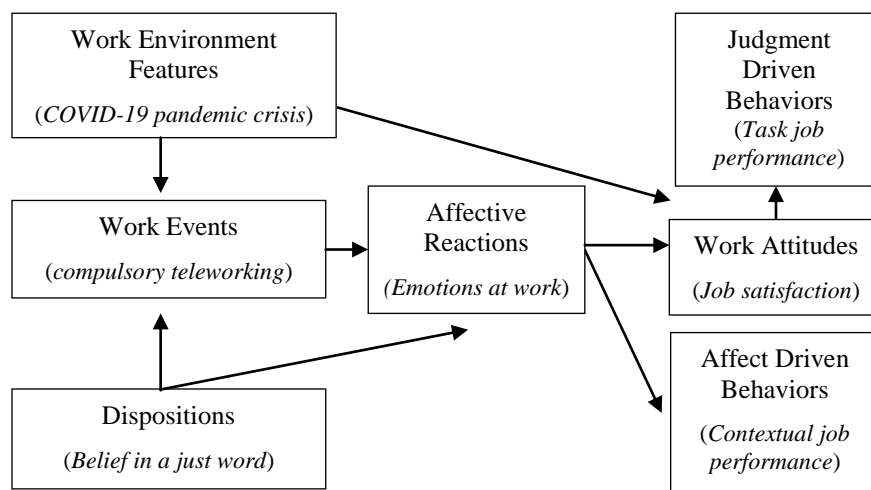


Figure 1 Conceptual Model – Affective Events Theory: Macro Structure

Source: Weiss & Cropanzano, 1996

Note: In brackets are variables operationalized in the study

This paper offers contributions both to research and practice. First, we add to the emerging stream of studies examining how different measures adopted during the COVID-19 pandemic across countries could impact people's lifespan. Emerging research in work and organizational psychology has primarily focused on the relationship between employers and organizations, highlighting leadership differences²³, workers' deals²⁴, and contextual conditions

to telework^{7,25}. We extend this line of research clarifying why some individuals manage their emotions better than others, using a blended approach that involves people's beliefs about how the world is fair and how both (emotions and beliefs) can interfere with their perceptions of job performance.

In considering BJW, our second contribution is adding a construct outside the organizational context to job-outcomes literature. We do that by highlighting the role that workers' perceptions of the world play in job performance and job satisfaction. Job performance research has focused on the cognitive variables^{26,27} or on understanding the role of different types of affects on these outcomes^{11,12}. Nevertheless, recent meta-analyses emphasize the importance of introducing variables from outside the organizational context to understanding such constructs, such as the cultural dimension²⁸ or, as seen in the COVID-19 studies, research that considers the economic role^{13,29}.

Finally, in practical terms, our research informs managers and workers about factors that may increase job success should be considered in light of a broad environment and organizational context. As vaccination progresses, the crises triggered by COVID-19 was attenuated in most countries, but many practices adopted in the work world remained. Telework, which was slowly becoming a controversial way of working, has been established in the post-crises moment^{23,25}. Finally, we made suggestions regarding how to successfully manage performance, satisfaction, and emotions in a context that regularly includes adversities.

1.1 Crisis and the different policies adopted by the countries

The situation in the work context filled a special place among many scientific associations as well in the guidelines of the International Labor Organization (see ILO Standards

for COVID-19 in www.ilo.org). On this topic, the ILO shows in several reports since the beginning of the pandemic crises how the different policies adopted in the countries affected employment protection ¹⁸ and, consequently, the power of economic recovery of each one ^{30,31}. According to these documents, in contrast to other countries in Latin America, Brazil adopted more isolated policies between states than national policies. The Brazilian scenario has been in evidence since May 2020 in the British journal *The Lancet* ³². The timid national plan to combat the pandemic and the denialist attitude towards science brought Brazil to the top of the ranking of deaths from COVID-19, as well as causing one of the most severe SARS-CoV-2 variants ^{33,34}. Consequently, the working environment is still deeply affected without a solid plan for rescuing the economy.

On the other side, the measures to contain the pandemic were more severe and protective for workers in European countries ¹⁸. In France, the country's borders were closed until December 2020, when they were gradually opened to European countries. The year 2021 was the year of the vaccination pass requirement for circulation and only in early 2022 did protective masks go from mandatory to recommended. The International Monetary Fund (IMF) reports (<https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19#top>) inform that French authorities introduced four amending budget laws during March-November 2020, adding to a package of public guarantees of €327 ½ billion (close to 15% of GDP), including €315 billion in guarantees for banks loans and credit reinsurance schemes.

The policies adopted in Brazil and in the European context were compared in previous research ³⁵ and Brazilian national documents ³⁶. Brazilian studies point to the need to increase protective factors for workers' health and also to favor resources such as emotional support ^{7,37}. Other elements in French research demonstrate the influence of crises-specific variables (like

professional isolation, telework environment, work increase, and stress) and telework adjustment

38

1.2 Belief in a just world and emotional control

Due to different reasons, crisis are relatively frequent, and people are repeatedly confronted with adverse events such as tax increases, inflation, the rising costs of health insurance, or financial crisis ²¹. However, their reactions to such events differ in their levels of subjective affectedness, and this difference emerges despite the hostile and threatening consequences of these economic events. The belief in a just world (BJW) is one critical personal resource that has proven helpful when dealing with adverse life events ^{15,39}. It is manifested in an individual's worldview through a belief that the world is fair and that people get what they deserve.

People with a strong BJW tend to blame victims for their fate, which helps them restore their worldview when confronted with observations consistent with the belief (Furnham, 2003). Although this is an undesirable and antisocial example of BJW, research has demonstrated the importance of BJW in mental health and affects/well-being ⁴⁰⁻⁴². BJW was found to be a substantial personal resource in many domains, such as anger, bullying and burnout ⁴, financial crisis ²¹ and how it was demonstrated in an experimental study where BJW was the control variable and emotions were triggered by the COVID-19 pandemic crises ⁵.

It is also necessary to consider that inconsistent policies, associated with commonly precarious working conditions ^{3,8}, increases the insecurity climate, which transforms teleworking into an opportunity to protect oneself. Because of this, the perception of how fair the world is and job outcomes may be more positive among contexts such as Brazil, the subject of our first hypothesis

H1: Brazilian workers have higher levels of Belief in a Just World, job satisfaction, and job performance than French workers.

According to what is typical of major social disaster, the COVID-19 pandemic has led to psychological stress and affects how people see the world and how they feel. In fact, since the outbreak of the COVID-19 pandemic, people have experienced high negative and low positive emotions⁵. In turn, this natural response can reduce individuals' positive emotions and subjective well-being and increase individuals' negative emotions⁵⁰. However, different countries' policies to contain the disease can provide different levels of stress to the environment. Therefore, this may affect differently not only performance in the mandatory telework but also the perception of how fair the world is. These elements provide support for the second hypothesis.

H2: French workers have more positive perceptions than Brazilian regarding emotions at work.

To support these hypotheses, we have to consider that French policies have been more agile and robust in protecting its population, positively affecting job-related variables. Thus, they also had more conditions than Brazilians to organise themselves with telework, an element that favours positive experiences during mandatory telework^{24,25,38}. In this scenario, it is also reasonable to consider that the higher the level of BJW, the higher the self-perceptions of job outcomes, scope of the third hypothesis.

H3: Job performance and job satisfaction are predicted directly by the BJW in each country.

Whether measured by satisfaction or performance indicators, the literature has shown the symbiotic relationship between affects and job outcomes^{11,45}.

1.3 Affective reactions at work and job outcomes

It has been more than three decades of research since the Affective Revolution at work and job outcomes have been empirically discussed^{11,46,47}, and results still show controversial

relationships. However, in recent meta-analyses ^{11,28}, some points have been explicitly pointed out concerning explaining the controversial relationships. The sample size appears among the reasons for the variability in the strength (sometimes weak, sometimes moderate or strong) and direction (sometimes inverse, sometimes direct) of the relationship between both constructs, but not only. The main reason may be the *nature* of the indicators to measure each one.

Considering the affective approach, a large literature includes emotions at work as an essential variable ⁴⁷. Positive emotions appear as protagonists for well-being, whereas negative emotions signal to the individual that a challenging situation must be solved ⁴⁸.

For performance, we have the management conception that considers performance as results delivered ⁵⁴, the psychological point of view that considers individual performance as behaviours aligned with organisational goals ²⁶, the focus of the behaviour, whether task-oriented, contextual, or counterproductive ^{26,51} and we also have to consider the type of ratings, it means, self-report or management-report ¹¹.

As long as this discussion about measure indicators about affects and job performance is the discussion about the role of job satisfaction. When we revisit the last hundred years of research in organisational and occupational psychology, we find that job satisfaction is among the most recurrent job attitudes ^{52,53}. Observed from this point of view, job satisfaction is classically a predictor of performance and is sometimes moderated by affects like well-being ⁵⁴, an overview that is systematically observed in the literature ⁵². However, job satisfaction has also been studied as a product of other attitudes such as work commitment ⁵⁵, emotions ⁴⁸, and job resources such as social support ⁵⁶.

The measures to mitigate the COVID-19 pandemic crises suddenly triggered teleworking and put back the relationship between affects and performance into a discussion. The

introduction of teleworking in different degrees led many employees to transform the psychosocial work environment and to mobilise job and personal resources²². The new challenges regarding employee adaptation to change have affected their emotions¹³ and also impose on managers the challenge of keeping these levels high by expecting that these resources can provide positive performance levels^{19,20,22}. These elements provide support for our fourth and fifth hypotheses.

H4. Job performance and satisfaction are predicted directly by positive emotions and inversely by negative emotions at work.

H5. Job satisfaction positively explains job performance.

Furthermore, considering the role of beliefs already demonstrated in previous studies^{5,57}, we also posed the fifth hypothesis.

H6: BJW can moderate the relationship between emotions and job outcomes (performance and satisfaction).

Method

Participants

There were 449 respondents in Brazil and 236 respondents in France. In both countries, women (over 60%) and people with a university education (over 50%) had the highest participation. The average age was very close between the two countries, Brazil = 40.8 (SD = 11.6) and France = 40.8 (SD = 11.7). We have other similarities between the participants' profiles and other differences, as seen in Table 1.

Table 1

Profile of respondents in Brazil (N = 451) and France (N = 236)

| Descriptive | BR | | FR | |
|--|--------|-----|--------|-----|
| | % | N | % | N |
| Sex | | | | |
| Male | 33.9 % | 153 | 30.9 % | 74 |
| Female | 66.1 % | 298 | 69.1 % | 162 |
| Marital Status | | | | |
| No marriage | 33.0% | 149 | 50.8% | 120 |
| Marriage | 53.4% | 241 | 42.9% | 101 |
| Divorced | 13.3% | 60 | 5.9% | 14 |
| Widower | 0.3% | 1 | 0.4% | 1 |
| Educational Level | | | | |
| Elementary School | 0.4% | 2 | 0.4% | 1 |
| High School | 6.0% | 27 | 11.4% | 27 |
| University Education | 25.8% | 116 | 55.6% | 131 |
| Post-Graduation | 67.8% | 306 | 32.6% | 77 |
| Sum of Household Income * | | | | |
| Less than 1,000.00 | 1.1% | 5 | 2.6% | 6 |
| Between 1,000.00 and 2,000.00 | 4.4% | 20 | 24.6% | 58 |
| Between 2,001.00 and 3,000.00 | 5.5% | 25 | 24.6% | 58 |
| Between 3,001.00 and 5,000.00 | 12.5% | 56 | 34.7% | 82 |
| Between 5,001.00 and 10,000.00 | 27.5% | 124 | 11.4% | 27 |
| More than 10,000.00 | 49.0% | 221 | 2.1% | 5 |
| Hours per day dedicated to work (besides domestic | | | | |
| Less than 4 hours | 8.9% | 40 | 4.2% | 10 |
| Between 4 and 8 hours | 39.9% | 180 | 44.9% | 106 |
| Between 8 and 12 hours | 40.8% | 184 | 46.2% | 109 |
| Between 12 and 16 hours | 6.2% | 28 | 3.4% | 8 |
| More than 16 hours | 4.2% | 19 | 1.3% | 3 |

* For household income, we use the same intervals but with the respective currency of each country, i.e., Brazilian Reais for Brazil (R\$) and Euros for France (€) as the minimum salary is equivalent (1000 reais and 1000 euros).

It is also important to highlight some respondents' information that usually affects working home conditions. Most respondents indicated that they have children; 46.5% of Brazilians affirmed having between 1 and 5 children living with them ($M_o = 1$ and 2 children), while 50.0% of French affirmed having between 1 and 4 children in the same condition ($M_o = 1$ and 2 children). Regarding the number of people living at home with the respondent, the

percentage of people who indicated living alone in the two countries was similar (BR = 14.5%; FR = 17.8%). However, in France, homes seem to be less populated. The rest of the respondents indicated living with up to five people ($M_o = 2$ and 3 people). In Brazil, 84% of the Brazilian respondents indicated living with up to 5 people, and this was not the maximum number; it means, we have respondents who indicated living with up to 10 people.

At the time of the survey, 62.4% of Brazilians indicated that they work at home because of the pandemic every day, but in France, this number is almost half (31.8%). The French reported that they work at home between 2 and 3 days a week (33.5%). Regarding teleworking experience, 72.9% of Brazilians indicated they had never tried this modality before COVID-19. In France, this number dropped to 53.3%, and almost 30% of the French respondents indicated that they had already worked sometimes, although not regularly.

Instruments

For job performance, participants answered to a brief adapted version of the General Job Performance Self-Assessment Scale – EGDT⁵⁸ that assesses two aspects of performance (core task and contextual performance), and the 10-item version can be used with a single factor (α and $\omega = 0.88$). Examples of an item are: “I perform hard tasks properly”; “I try to update my technical knowledge to do my job”; “I seize opportunities that can improve my results at work.”

Job satisfaction was measured according to one single item “How do you feel about the job you have now?” inspired by⁵⁹ responded to a 5-point scale ranging from “absolutely not satisfied” until “absolutely satisfied”.

Belief in a Just World was measured by its short form with five items⁶⁰ that assesses personal beliefs about justice in the world. The single factor showed good reliability (α and $\omega =$

0.90). Examples are: “In general, the events of my life are fair”; “I believe that I generally get what I deserve”.

Emotions at work were answered in another brief version of the Positive and Negative Affect Schedule – PANAS⁶¹. The scale is composed of positive emotions (4 items; α and $\omega = 0.88$) and negative emotions (5 items; α and $\omega = 0.87$). An example of a positive emotion item is “when I think in my actual work, I feel *happy*”, and negative emotion is “when I think in my actual work, I feel *upset*”.

The response scale was a 5-point agreement scale for all instruments, except job satisfaction. All instruments were already validated in Brazilian-Portuguese, not requiring translations. For French language, we conducted a simple translation of the instruments.

Ethics statement

We followed the international ethical recommendations for data collection, i.e., the general principles related to human research from the Helsinki Declaration (available online: <https://www.wma.net/what-we-do/medical-ethics/declaration-of-helsinki>, accessed on 19 April 2021). The research objectives were initially explained, and the respondents’ participation was completely voluntary. The respondents were free to withdraw from the survey at any time if they thought it necessary. We provided a contact to offer support in case the participant felt uncomfortable. Furthermore, we guaranteed the anonymity of the responses and kept the information received confidential. All data obtained were analyzed in aggregate form so individual responses could not be identified.

Procedures

This cross-sectional study was carried out between April 26th to June 18th 2021, during the second strong wave of COVID-19 and the second social distancing period to prevent the virus dissemination. This was when people re-started working remotely (especially in Europe), one year after the first confinement. It was a web-based survey disseminated through a snowball procedure.

Descriptive analysis and analysis of variance (ANOVA) were conducted with Jamovi (version 1.8). The *psych* package supported the reliability analysis, the *lavaan* package performed the confirmatory analysis, and the empirical models were tested by Structural Equation Modeling (SEM) with *PATHj* and *lavaan* packages.

Results

The first hypothesis suggests that Brazil and France will have differences in BJW, job performance, and job satisfaction. Significant differences ($p < .001$) were observed for all variables. Figures 2A, 2B and 2C disclose ANOVA for BJW ($M_{BR} = 3.61$; $SD_{BR} = .84$; $M_{FR} = 3.31$; $SD_{FR} = .79$), job performance ($M_{BR} = 4.19$; $SD_{BR} = .62$; $M_{FR} = 4.03$; $SD_{FR} = .55$) and job satisfaction ($M_{BR} = 3.63$; $SD_{BR} = 1.09$; $M_{FR} = 3.44$; $SD_{FR} = 1.09$).

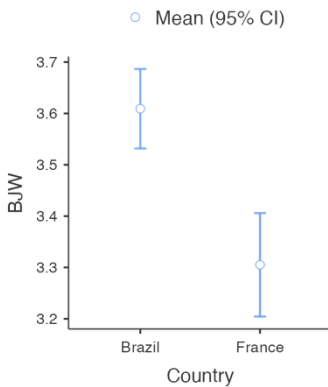


Figure 2A Teleworkers' means considering Brazil and France – Belief in a Just Word

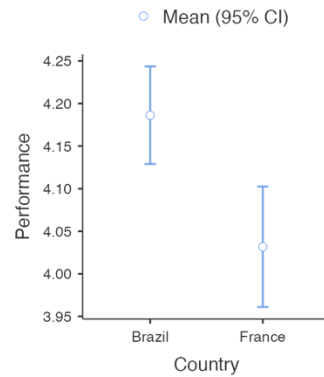


Figure 2B Teleworkers' means considering Brazil and France – Job Performance

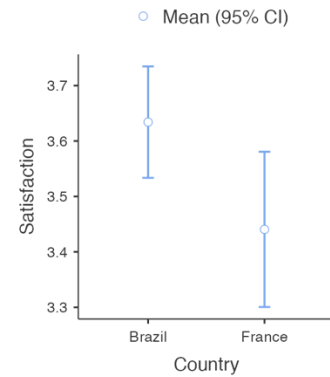


Figure 2C Teleworkers' means considering Brazil and France – Job Satisfaction

According to what was predicted in H1, the Brazilian workers had more positive BJW, job performance and satisfaction perceptions. We hypothesised that the government measures to contain the crises, more inconsistent in Brazil when compared to France, provided a more insecure environment, driving positive perceptions of the mandatory telework situation. However, it is important to add supplementary information to understand the result better. When we check the support received from employers, more French workers (33%) indicated that they receive *no support* for teleworking than Brazilians (29%). When support was perceived, 29% of French teleworkers indicated they were *supported with equipment*, compared to only 11% of Brazilians. On the other side, more Brazilians (10%) than French (6%) indicated that they received *support in taking care of their health* (physical or psychological). This information also helps us interpret the evaluations between Brazil and France and reinstate the discussion about the importance of psychosocial support and its direct repercussion on the worker's outcomes ¹⁰.

Significative differences ($p < .001$) were also observed for Brazil and France in positive and negative emotions, according to Figures 3A and 3B.

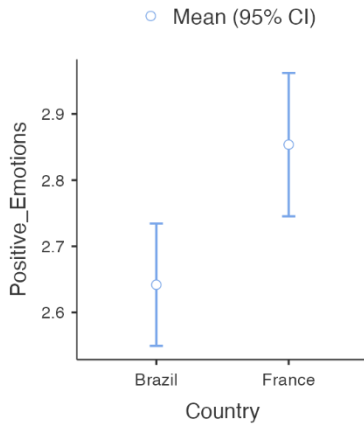


Figure 3A Teleworkers' means considering Brazil and France – positive emotions

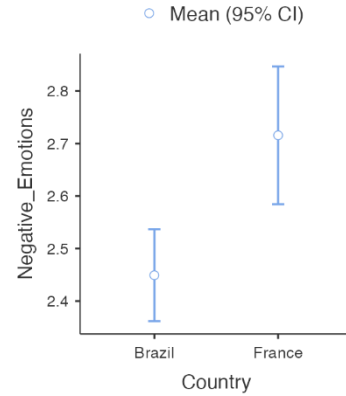


Figure 3B Teleworkers' means considering Brazil and France – negative emotions

The ANOVA disclosed in Figures 3A and 3B shows that French teleworkers have more positive emotions ($M_{FR} = 2.85$; $SD_{FR} = .84$) than Brazilian teleworkers ($M_{BR} = 2.62$; $SD_{BR} = .99$), which would confirm H2. Nevertheless, the negative emotions, also perceived more intensely among French teleworkers ($M_{FR} = 2.72$; $SD_{FR} = 1.02$; $M_{BR} = 2.45$; $SD_{BR} = .94$), makes H2 partially confirmed.

Despite the differences between countries, one of the core research questions is to understand how affects, especially BJW, a dispositional variable, can predict job outcomes in mandatory teleworking triggered by COVID-19 measures. With Structural Equation Modeling (SEM) we examined the effect of the BJW and emotions on job performance and job satisfaction simultaneously as consequent variables. Table 2 discloses the model tests and fit indices for SEM considering Brazil and France.

Table 2

Model tests and Fit Indices for SEM considering multigroup factor analysis for Brazil and France

| Model Tests | | | | Fit Indices - 95% Confidence Intervals | | | | | | |
|----------------|----------------|-----|--------|--|------|------|-------|-------|-------|---------|
| Label | X ² | df | p | CFI | TLI | SRMR | RMSEA | Lower | Upper | RMSEA p |
| User Model | 1506 | 524 | < .001 | .880 | .873 | .066 | .078 | .073 | .082 | < .001 |
| Baseline Model | 8717 | 552 | < .001 | | | | | | | |

The fit indices and the residual values show that the multigroup model are acceptable and the relationship between the variables points to empirical consistency of the model. Brazil and France presented different relationships among the variables, especially regarding the role of emotions in explaining the perception of work performance. Table 3 presents estimated parameters for each country.

Belief in a just world has a direct effect on job performance and satisfaction in Brazil ($\beta_{\text{performance}} = .15$; $\beta_{\text{satisfaction}} = .11$; $p < .01$), but it is only true for job satisfaction in France ($\beta_{\text{satisfaction}} = .21$; $p < .01$). Because this, the assumption in H3 is partially confirmed. Another controversial result is observed when we inspect the role of emotions, searched in H4. Emotions explained job satisfaction in both Brazil ($\beta_{\text{positive emotion}} = .43$; $\beta_{\text{negative emotion}} = -.36$; $p < .001$) and France ($\beta_{\text{positive emotion}} = .43$; $\beta_{\text{negative emotion}} = -.18$; $p < .01$).

For job performance, we only found a significative effect for positive emotion in France ($\beta_{\text{positive emotion}} = .25$; $p < .001$). Thus, H4 was not completely confirmed.

In addition, despite the controversial relationship related to job outcomes, i.e., job performance and satisfaction^{11,46}, the result confirms the dual role of job satisfaction: it an outcome that can be explained by emotions arising from work and it is a predictor that contributes explanation to performance ($\beta_{\text{BR}} = .26$ and $\beta_{\text{FR}} = .21$; $p < .01$), which confirms H5. The overview of SEM model is disclosed in Figures 4A and 4B.

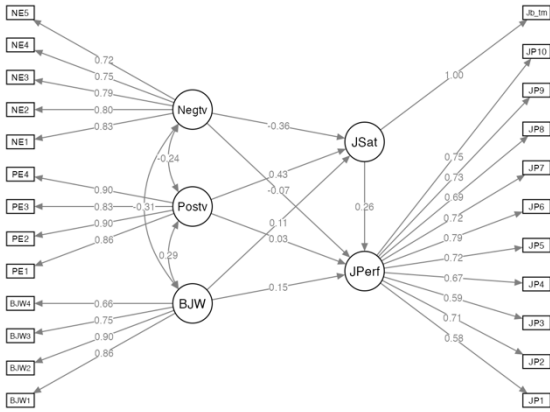


Figure 4A Overview in SEM model with Beta coefficients – Brazil

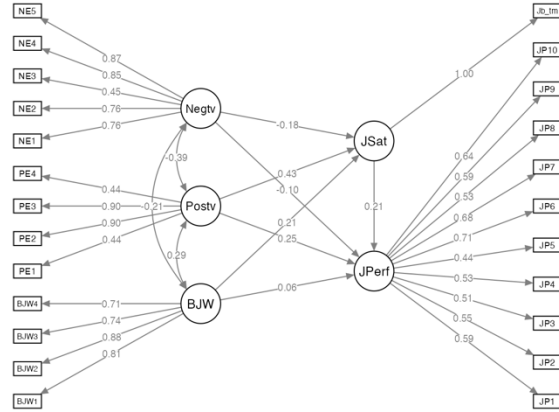


Figure 4B Overview in SEM model with Beta coefficients – France

The variance explained for job performance ($R_{BR}^2 = .123$; $R_{FR}^2 = .203$) is lower than job satisfaction ($R_{BR}^2 = .448$; $R_{FR}^2 = .383$) in Brazil and France. Despite the direct effect between the variables, our interest remains in understanding the moderating role of emotions in the relationship between B JW and job outcomes, according to our last hypothesis (H6). These relationships were tested in the regression analyses presented following. In Figures 5A and 5B we can observe the moderation of job performance as a predicted variable.

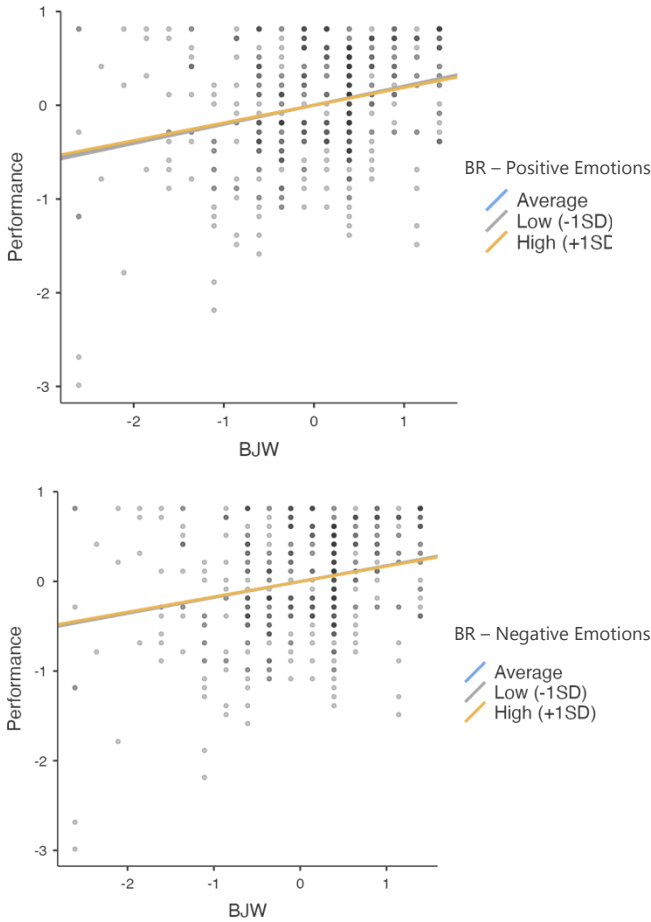


Figure 5A Moderation plots for Emotions between BJW and Job Performance – Brazil

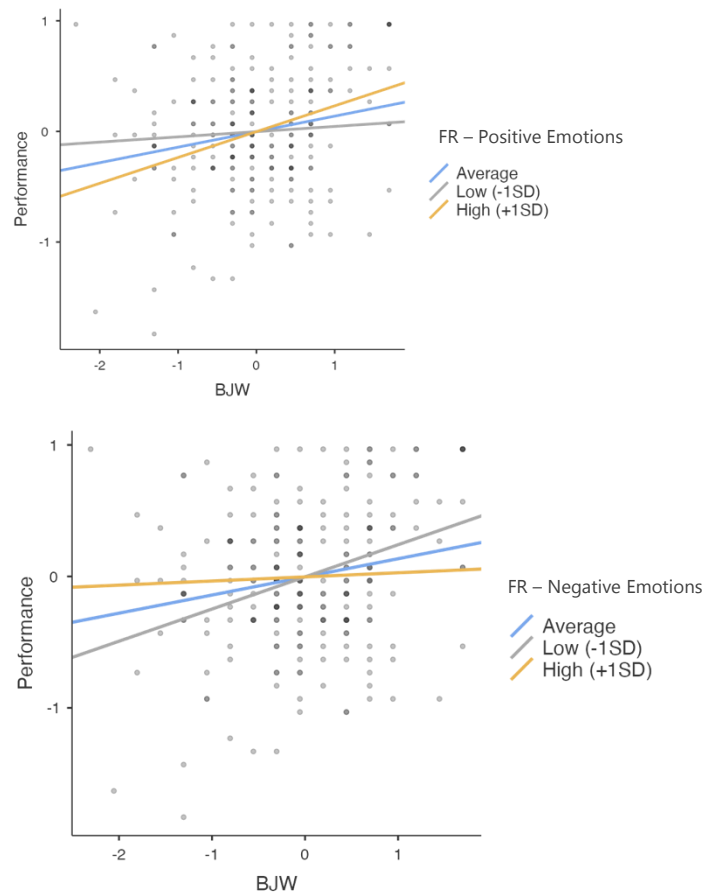


Figure 5B Moderation plots for Emotions between BJW and Job Performance – France

In the Brazilian context, no moderating effect can be seen on job performance, whereas in the French context the effect is clear. Positive emotions increase job performance when BJW is high and experiencing negative emotions from work tends to decrease this perception. For job satisfaction, the effect of the interaction of emotions also is not the same in the two countries (Figures 6A and 6B).

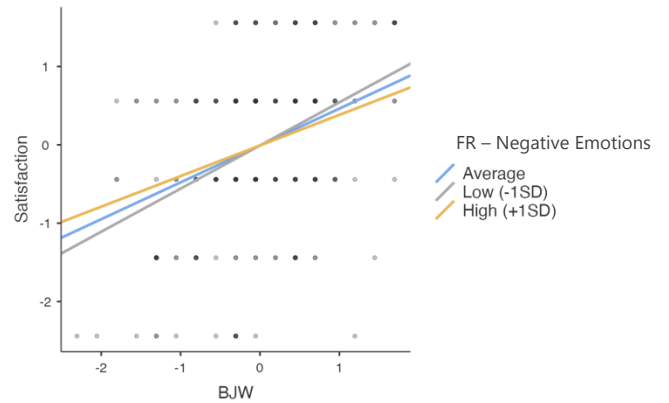
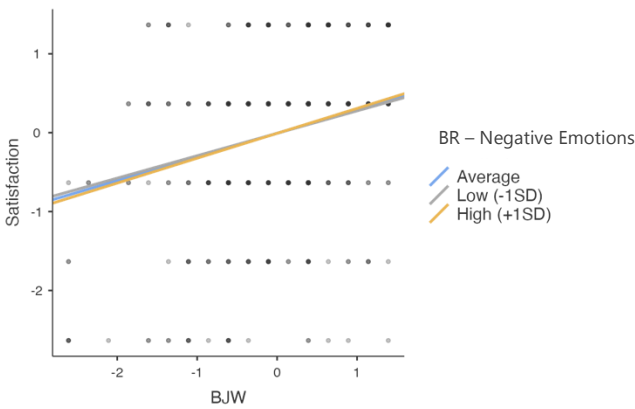
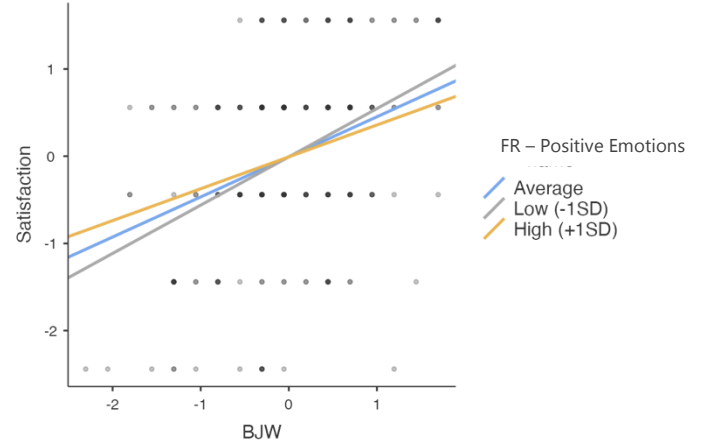
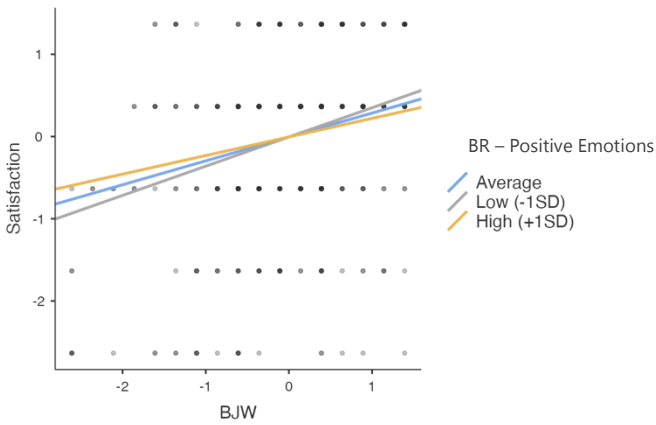


Figure 6A Moderation plots for Emotions between BJB and Job Satisfaction – Brazil

Figure 6B Moderation plots for Emotions between BJB and Job Satisfaction – France

In the Brazilian context, low positive emotions tend to decrease perceived satisfaction when BJB is high, but negative emotions have no significant effect. Among French teleworkers, the presence of low positive emotions and high negative emotions impair the perception of satisfaction when BJB is high. With this, it can be said that H6 has been partially confirmed. These results will be discussed below in light of the literature approached in this study.

Discussion

At the time this manuscript is being reviewed for submission to this journal, i.e., March 2023, we are remembering that three years ago the WHO declared COVID-19 a pandemic. The repercussions arising from the measures to contain the pandemic echo until the present day, especially with regard to the people management in the *post-pandemic period*. Several practices, adopted during confinement, were incorporated as well as some of the characteristics of the environment present at that time.

The present study aimed to test the Affective Events Theory (AET⁶²) model by analysing to what extent work environments are seen as having an indirect influence on affective experience and job outcomes. We applied the AET⁶² to consider the BJW may have affected people's emotions at work in the context of the COVID-19 pandemic, and emotions have interfered in job performance and satisfaction in countries that adopted different measures to contain the health crises. In general, participants indicated a moderate to high level of perceived job performance in both countries, despite their job satisfaction averages being considered regular during the second wave of the COVID-19 pandemic. These scores are similar to those research about fatigue in teleworking during COVID-19 first wave in Canada⁶³, Romanian²⁹, Spain²², and Brazil^{7,37}. Leaving aside the commonalities, our study revealed a strong differences among the included countries, Brazil and France. The marked differences in the governmental measures taken in the two countries to mitigate the pandemic, associated with their importance for explaining people's behaviour³, led us to expect different perceptions between the two countries regarding the repercussions of telework.

In the face of the inconsistent measures adopted in Brazil, mandatory telework appears as an opportunity to protect oneself and remain productive. Studies revealed that when individuals

face psychological stress, BJW works as an emotion regulator^{5,57} with the power to diminish the effect of negative emotions and enhance the effect of positive emotions. In France, where BJW was less favourable when compared with Brazil, the relationship with emotions showed this effect on job outcomes. It means that moderation analyses indicated that BJW diminishes the effect of negative emotions and enhances the effect of positive emotions, especially in job satisfaction. Therefore, in contrast with the protective effect of the BJW on individual emotions because of the belief that the world is just for oneself, the effects of the BJW on Brazilian teleworkers had been relatively weak.

In addition to cultural reflections on the relationship between variables, the results of this study offer practice contributions. The difference in support perceived by French and Brazilian teleworkers reinforces research which primarily focuses on workers' i-deals²⁴, and contextual conditions^{25,64,65}, as a central resource to maintain emotional health and job performance. Also, in addition to the organisational outcome literature, a dispositional construct (BJW), we highlight that those workers' perceptions of the world play a role in activating the relationship between emotions and job performance and job satisfaction. It is something to be considered by managers because the recent meta-analysis²⁸ and the COVID-19 studies^{13,29} have included macro variables (such as cultural dimension or country economy) in order to better understanding individual job outcomes.

Limitations of this study should be pointed out. Analysing the perception of work during the pandemic from the perspective of teleworkers is a limiting proposal insofar as they portray a minority of the active population that can adopt the "stay at home" recommendation. In Brazil, for example, they account for 22.7% of jobs positions³⁶. The confinement was a source of stress for a large part of the teleworkers^{37,65}, but caution is needed to consider the fair world perception

of such a specific portion of workers when others may have been in an even more stressful situation⁶⁶. Another point refers to the data collection period, a stressful moment to rescue the confinement. However, it was also a moment when people learned to manage some difficulties of teleworking. Because of this, a longitudinal approach would be more appropriate for understanding eventual differences between the first and second confinement.

Teleworking, which was slowly becoming controversial, began to establish itself in the post-crises moment^{23,25}. AET suggested that judgments and work attitudes vary in part of individual variables and some by the situation, and we could show a piece of evidence of the model. Thus, the suggestions in the paper aim to facilitate the successful management of performance, satisfaction, and emotions in a context that regularly includes adversities. Maybe we do not need to stop Earth every time.

Acknowledgements

We are very grateful to the members of the research group ProLab Sustainable – Center for Psychosocial Research on Sustainable Labor Processes –, for their dedication to releasing the research which made the data collection possible. We also thank all the participants who, even in adverse situations, dedicated their time to collaborate with the project.

Authors' contributions

Fabiana Queiroga. Conception and design; Statistical expertise; Drafting of the article; Interpretation of the results; Critical revision of the article for important intellectual content; Final approval of the article.

Amalia R. Pérez-Nebra. Conception and design; Statistical expertise; Interpretation of the results; Critical revision of the article for important intellectual content; Final approval of the article.

Eva M. Lira. Provision of study materials; Critical revision of the article for important intellectual content; Final approval of the article.

Vincent Angel. Analysis and interpretation of the data; Critical revision of the article for important intellectual content; Final approval of the article.

Marilena Bertolino. Provision of study materials and revision of the French language instruments; Critical revision of the article for important intellectual content; Final approval of the article.

References

1. Danker TN, Yap HL, Zalzuli AD, Ho HF, Ang J. Surviving Work from Home: Observations from Singapore. *J Police Crim Psychol*. 2022;37(2):407-422. doi:10.1007/s11896-021-09461-y
2. Maier C, Laumer S, Weitzel T. A Dark Side of Telework: A Social Comparison-Based Study from the Perspective of Office Workers. *Bus Inf Syst Eng*. 2022;64(6):793-811. doi:10.1007/s12599-022-00758-8
3. Belkin LY, Kong DT. Beliefs in government benevolence can promote individuals' compliance with government- issued guidelines: The role of positive affect and general construal level. *J Appl Soc Psychol*. 2022;52(2):85-94. doi:10.1111/jasp.12836
4. Desrumaux P, Gillet N, Nicolas C. Direct and Indirect Effects of Belief in a Just World and Supervisor Support on Burnout via Bullying. *Int J Environ Res Public Health*. 2018;15(11):2330. doi:10.3390/ijerph15112330
5. Wang J, Wang Z, Liu X, Yang X, Zheng M, Bai X. The impacts of a COVID-19 epidemic focus and general belief in a just world on individual emotions. *Personal Individ Differ*. 2021;168:110349. doi:10.1016/j.paid.2020.110349
6. Martínez-Tur V, Estreder Y, Tomás I, Moreno F, Mañas-Rodríguez MA, Díaz-Fúnez PA. Not Every Day is Monday for Employees Confined due to COVID-19: Anticipatory

- Happiness Matters. *Rev Psicol Trab Las Organ.* 2022;38(3):201-211.
doi:10.5093/jwop2022a12
7. Mishima-Santos V, Sticca MG, Pérez-Nebra AR. Wellbeing and Work Design in Brazilian Teleworkers. *Front Psychol.* 2021;12:733640. doi:10.3389/fpsyg.2021.733640
 8. Pérez-Nebra A, Sklaveniti C, Islam G, et al. COVID-19 and the future of work and organisational psychology. *SA J Ind Psychol.* 2021;47. doi:10.4102/sajip.v47i0.1854
 9. Van Ootegem L, Verhofstadt E, Defloor B, Bleys B. The Effect of COVID-19 on the Environmental Impact of Our Lifestyles and on Environmental Concern. *Sustainability.* 2022;14(14):8437. doi:10.3390/su14148437
 10. Kundi YM, Aboramadan M, Elhamalawi EMI, Shahid S. Employee psychological well-being and job performance: exploring mediating and moderating mechanisms. *Int J Organ Anal.* 2021;29(3):736-754. doi:10.1108/IJOA-05-2020-2204
 11. Moscoso S, Salgado JF. Meta-analytic Examination of a Suppressor Effect on Subjective Well-Being and Job Performance Relationship. *Rev Psicol Trab Las Organ.* 2021;37(2):119-131. doi:10.5093/jwop2021a13
 12. Salgado JF, Blanco S, Moscoso S. Subjective Well-being and Job Performance: Testing of a Suppressor Effect. *Rev Psicol Trab Las Organ.* 2019;35(2):93-102. doi:10.5093/jwop2019a9
 13. Nemteanu MS, Dinu V, Dabija DC. Job Insecurity, Job Instability, and Job Satisfaction in the Context of the COVID-19 Pandemic. *J Compet.* 2021;13(2):65-82. doi:10.7441/joc.2021.02.04
 14. Mariss A, Reinhardt N, Schindler S. The Role of Just World Beliefs in Responding to the COVID-19 Pandemic. *Soc Justice Res.* 2022;35(2):188-205. doi:10.1007/s11211-022-00388-1
 15. Lerner MJ, Miller DT. Just world research and the attribution process: Looking back and ahead. *Psychol Bull.* 1978;85(5):1030-1051. doi:10.1037/0033-2909.85.5.1030
 16. Hafer CL, Rubel AN. The Why and How of Defending Belief in a Just World. In: *Advances in Experimental Social Psychology.* Vol 51. Elsevier; 2015:41-96. doi:10.1016/bs.aesp.2014.09.001
 17. Lerner MJ. *The Belief in a Just World: A Fundamental Delusion.* Plenum Press; 1980. Accessed March 9, 2022. <http://books.google.com/books?id=M423AAAIAAJ>
 18. ILO. Social protection responses to the COVID-19 crisis: Country responses and policy considerations. Published online 2020. Accessed April 21, 2022. https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---soc_sec/documents/publication/wcms_742337.pdf

19. Bakker AB, Demerouti E. Job demands–resources theory: Taking stock and looking forward. *J Occup Health Psychol.* 2017;22(3):273-285. doi:10.1037/ocp0000056
20. Salas- Vallina A, Alegre J, López- Cabrales Á. The challenge of increasing employees' well- being and performance: How human resource management practices and engaging leadership work together toward reaching this goal. *Hum Resour Manage.* 2021;60(3):333-347. doi:10.1002/hrm.22021
21. Christandl F. The Belief in a Just World as a Personal Resource in the Context of Inflation and Financial Crises: BELIEF IN A JUST WORLD AS A RESOURCE. *Appl Psychol.* 2013;62(3):486-518. doi:10.1111/j.1464-0597.2012.00489.x
22. Pulido-Martos M, Cortés-Denia D, Lopez-Zafra E. Teleworking in Times of COVID-19: Effects on the Acquisition of Personal Resources. *Front Psychol.* 2021;12:685275. doi:10.3389/fpsyg.2021.685275
23. Contreras F, Baykal E, Abid G. E-Leadership and Teleworking in Times of COVID-19 and Beyond: What We Know and Where Do We Go. *Front Psychol.* 2020;11:590271. doi:10.3389/fpsyg.2020.590271
24. Latorre F, Pérez-Nebra AR, Queiroga F, Alcover CM. How Do Teleworkers and Organizations Manage the COVID-19 Crisis in Brazil? The Role of Flexibility I-Deals and Work Recovery in Maintaining Sustainable Well-Being at Work. *Int J Environ Res Public Health.* 2021;18(23):12522. doi:10.3390/ijerph182312522
25. Belzunegui-Eraso A, Erro-Garcés A. Teleworking in the Context of the Covid-19 Crisis. *Sustainability.* 2020;12(9):3662. doi:10.3390/su12093662
26. Campbell JP, Wiernik BM. The Modeling and Assessment of Work Performance. *Annu Rev Organ Psychol Organ Behav.* 2015;2(1):47-74. doi:10.1146/annurev-orgpsych-032414-111427
27. Queiroga F, Franco GC, Valentini F, Andrade ÉGSA. Performance, job crafting and work context: practical implications from a multilevel perspective. *Int J Organ Anal.* Published online December 2, 2021. doi:10.1108/IJOA-08-2021-2889
28. Salgado JF, Moscoso S. Cross-cultural Evidence of the Relationship between Subjective Well-being and Job Performance: A Meta-analysis. *Rev Psicol Trab Las Organ.* 2022;38(1):27-42. doi:10.5093/jwop2022a3
29. Nemteanu MS, Dabija DC. The Influence of Internal Marketing and Job Satisfaction on Task Performance and Counterproductive Work Behavior in an Emerging Market during the COVID-19 Pandemic. *Int J Environ Res Public Health.* 2021;18(7):3670. doi:10.3390/ijerph18073670
30. ILO. ILO Monitor: COVID-19 and the world of work. Seventh edition Updated estimates and analysis. Published online 2021. Accessed April 21, 2022.

https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/briefingnote/wcms_767028.pdf

31. ILO. Addendum to the General Survey: Promoting employment and decent work in a changing landscape. Published online 2021. https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---relconf/documents/meetingdocument/wcms_775883.pdf
32. The Lancet. COVID-19 in Brazil: “So what?” *The Lancet*. 2020;395(10235):1461. doi:10.1016/S0140-6736(20)31095-3
33. Sabino EC, Buss LF, Carvalho MPS, et al. Resurgence of COVID-19 in Manaus, Brazil, despite high seroprevalence. *The Lancet*. 2021;397(10273):452-455. doi:10.1016/S0140-6736(21)00183-5
34. Hallal PC. SOS Brazil: science under attack. *The Lancet*. 2021;397(10272):373-374. doi:10.1016/S0140-6736(21)00141-0
35. Lopes RH, Dantas J da C, Silva RAR da, Uchoa SA da C. National Health Systems and the pandemic by COVID-19: actions to cope with Brazil and Italy. *Physis Rev Saúde Coletiva*. 2021;31(4):e310419. doi:10.1590/s0103-73312021310419
36. National Confederation of Industry C. Telework in Brazil and in the world : comparative legislations : study of labor relations study. Published online 2020. www.portaldaindustria.com.br/cni/
37. Barbosa MA, Coelho Junior FA, Mourão L, Marques-Quinteiro P, Faiad C. Physical and psychological fatigue, and work performance among Brazilian workers during the SARS-CoV-2 (COVID-19) pandemic in Brazil. *Psychol Health Med*. Published online July 28, 2022:1-8. doi:10.1080/13548506.2022.2104887
38. Carillo K, Cachat-Rosset G, Marsan J, Saba T, Klarsfeld A. Adjusting to epidemic-induced telework: empirical insights from teleworkers in France. *Eur J Inf Syst*. 2021;30(1):69-88. doi:10.1080/0960085X.2020.1829512
39. Lerner MJ, Simmons CH. Observer’s reaction to the “innocent victim”: Compassion or rejection? *J Pers Soc Psychol*. 1966;4(2):203-210. doi:10.1037/h0023562
40. Faccenda L, Pantaléon N. Analysis of the relationships between sensitivity to injustice, principles of justice and belief in a just world. *J Moral Educ*. 2011;40(4):491-511. doi:10.1080/03057240.2011.627142
41. Nartova-Bochaver S, Donat M, Rüprich C. Subjective Well-Being From a Just-World Perspective: A Multi-Dimensional Approach in a Student Sample. *Front Psychol*. 2019;10:1739. doi:10.3389/fpsyg.2019.01739
42. Yu X, Ren G, Huang S, Wang Y. Undergraduates’ Belief in a Just World and Subjective Well-Being: The Mediating Role of Sense of Control. *Soc Behav Personal Int J*. 2018;46(5):831-840. doi:10.2224/sbp.6912

43. Gloria CT, Steinhardt MA. Relationships Among Positive Emotions, Coping, Resilience and Mental Health: Positive Emotions, Resilience and Health. *Stress Health*. 2016;32(2):145-156. doi:10.1002/smi.2589
44. Shallcross AJ, TROY A, MAUSS IB. Regulation of Emotions Under Stress. In: *The Experimental Approach to Studying Employers' Hiring Behavior*. John Wiley & Sons; 2017. Accessed June 8, 2022. <http://hdl.handle.net/1814/62186>
45. Peiró J, Kozusznik M, Rodríguez-Molina I, Tordera N. The Happy-Productive Worker Model and Beyond: Patterns of Wellbeing and Performance at Work. *Int J Environ Res Public Health*. 2019;16(3):479. doi:10.3390/ijerph16030479
46. Wright TA, Bonett DG, Sweeney DA. Mental health and work performance: Results of a longitudinal field study. *J Occup Organ Psychol*. 1993;66(4):277-284. doi:10.1111/j.2044-8325.1993.tb00539.x
47. Ashkanasy NM, Dorris AD. Emotions in the workplace. *Annual Review of Organizational Psychology and Organizational Behavior*. 2017;4:67-90. doi:10.1146/annurev-orgpsych032516-113231
48. Diener E, Thapa S, Tay L. Positive Emotions at Work. *Annu Rev Organ Psychol Organ Behav*. 2020;7(1):451-477. doi:10.1146/annurev-orgpsych-012119-044908
49. Huselid MA. Celebrating 50 Years: Looking back and looking forward: 50 years of Human Resource Management. *Hum Resour Manage*. 2011;50(3):309-312. doi:10.1002/hrm.20425
50. Huselid MA, Becker BE. Methodological Issues in Cross-Sectional and Panel Estimates of the Human Resource-Firm Performance Link. *Ind Relat*. 1996;35(3):400-422. doi:10.1111/j.1468-232X.1996.tb00413.x
51. Koopmans L, Bernaards CM, Hildebrandt VH, Schaufeli WB, de Vet Henrica CW, van der Beek AJ. Conceptual Frameworks of Individual Work Performance: A Systematic Review. *J Occup Environ Med*. 2011;53(8):856-866. doi:10.1097/JOM.0b013e318226a763
52. Judge TA, Weiss HM, Kammeyer-Mueller JD, Hulin CL. Job attitudes, job satisfaction, and job affect: A century of continuity and of change. *J Appl Psychol*. 2017;102(3):356-374. doi:10.1037/apl0000181
53. Judge TA, Zhang S, Glerum DR. Job Satisfaction. In: Bowling NA, ed. *Essentials of Job Attitudes and Other Workplace Psychological Constructs*. Essentials of Industrial and Organizational Psychology. Routledge, Taylor & Francis Group; 2021.
54. Wright TA, Cropanzano R, Bonett DG. The moderating role of employee positive well being on the relation between job satisfaction and job performance. *J Occup Health Psychol*. 2007;12(2):93-104. doi:10.1037/1076-8998.12.2.93

55. Indarti S, Solimun, Fernandes AAR, Hakim W. The effect of OCB in relationship between personality, organizational commitment and job satisfaction on performance. *J Manag Dev.* 2017;36(10):1283-1293. doi:10.1108/JMD-11-2016-0250
56. Zhao X (Roy), Wang J, Law R, Fan X. A meta-analytic model on the role of organizational support in work-family conflict and employee satisfaction. *Int J Contemp Hosp Manag.* 2020;32(12):3767-3786. doi:10.1108/IJCHM-05-2020-0371
57. Jiang F, Yue X, Lu S, Yu G, Zhu F. How Belief in a Just World Benefits Mental Health: The Effects of Optimism and Gratitude. *Soc Indic Res.* 2016;126(1):411-423. doi:10.1007/s11205-015-0877-x
58. Andrade ÉGS de A, Queiroga F, Valentini F. Short Version of Self-Assessment Scale of Job Performance. *An Psicol.* 2020;36(3):543-552. doi:10.6018/analesps.402661
59. Quinn RP, McCullough MR, Staines GL. *Job Satisfaction: Is There a Trend?* Washington, U.S. Dept. of Labor, Manpower Administration; for sale by the Supt. of Docs., U.S. Govt. Print. Off; 1974.
60. Modesto JG, Figueredo V, Gama G, Rodrigues M, Pilati R. Escala Pessoal de Crenças no Mundo Justo: Adaptação e Evidências de Validade. *Psico-USF.* 2017;22(1):13-22. doi:10.1590/1413-82712017220102
61. Demo G, Paschoal T. Well-Being at Work Scale: Exploratory and Confirmatory Validation in the USA. *Paid Ribeirão Preto.* 2016;26(63):35-43. doi:10.1590/1982-43272663201605
62. Weiss HM, Cropanzano R. Affective Events Theory: a theoretical discussion of the structure, causes and consequences of affective experiences at work. In: *Research in Organizational Behavior: An Annual Series of Analytical Essays and Critical Review.* JAI Press; 1996.
63. Nwachukwu I, Nkire N, Shalaby R, et al. COVID-19 Pandemic: Age-Related Differences in Measures of Stress, Anxiety and Depression in Canada. *Int J Environ Res Public Health.* 2020;17(17):6366. doi:10.3390/ijerph17176366
64. Tavares F, Santos E, Diogo A, Ratten V. Teleworking in Portuguese communities during the COVID-19 pandemic. *J Enterprising Communities People Places Glob Econ.* 2021;15(3):334-349. doi:10.1108/JEC-06-2020-0113
65. Tokarchuk O, Gabriele R, Neglia G. Teleworking during the Covid-19 Crisis in Italy: Evidence and Tentative Interpretations. *Sustainability.* 2021;13(4):2147. doi:10.3390/su13042147
66. Helioterio MC, Lopes FQR de S, Sousa CC de, et al. COVID-19: why the protection of health workers is a priority in the fight against the pandemic? *Trab Educ E Saúde.* 2020;18(3):e00289121. doi:10.1590/1981-7746-sol00289