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Ethical Behavior at Work Scale (EBAW): Construction and Evidence of Validity

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Abstract

Research on ethical behavior at work presents methodological challenges to minimize the impact of cultural characteristics and social desirability inherent to this phenomenon. The general objective of this study is to build and gather validity evidence for a scale of ethical behavior at work in Brazilian Portuguese that includes everyday behaviors and is applicable to most occupations. An item neutralization method was used in the scale construction. To collect evidence of validity, exploratory factor analysis was performed with a sample of 298 workers and convergent and discriminant analysis with a sample of 226 workers. The final scale had 12 items in a structure with 3 factors (composite reliability > .70) and explained variance of 65.6%. The study proposes an integration of the literature on ethical, counterproductive and work performance behavior and presents results that indicate the scale's suitability for use in future research.

Keywords: ethical behavior, unethical behavior, work, scale.

Escala de Comportamento Ético no Trabalho (CET): Construção e Evidências de Validade

Resumo

A pesquisa sobre comportamento ético no trabalho apresenta desafios metodológicos para minimizar o impacto das características culturais e da desejabilidade social, inerente a esse fenômeno. O objetivo geral desse estudo é construir e levantar evidências de validade para uma escala de comportamento ético no trabalho em português brasileiro que inclua comportamentos cotidianos e seja aplicável à maioria das ocupações. Foi utilizado método de neutralização de itens na construção da escala. Para o levantamento de evidências de validade, foi realizada análise fatorial exploratória com uma amostra de 298 trabalhadores e análise convergente e discriminante com uma amostra de 226 trabalhadores. A escala final contou com 12 itens em uma estrutura com 3 fatores (confiabilidade composta > 0,70) e variância explicada de 65,6%. O estudo propõe uma integração da literatura sobre comportamento ético, contraproducente e de desempenho no trabalho e apresenta resultados que indicam adequação da escala para uso em pesquisas futuras.

Palavras-chave: comportamento ético, comportamento antiético, trabalho, escala.

Escala de Conductas Éticas en el Trabajo (CET): Construcción y Evidencias de Validez

Resumen

La investigación sobre el comportamiento ético en el trabajo presenta desafíos metodológicos para minimizar el impacto de las características culturales y la deseabilidad social inherentes a este fenómeno. El objetivo general de este estudio es construir y recopilar evidencias de validez para una escala de comportamiento ético en el trabajo en portugués brasileño que incluya comportamientos cotidianos y sea aplicable a la mayoría de las ocupaciones. En la construcción de la escala se utilizó un método de neutralización de ítems. Para recolectar evidencias de validez se realizó análisis factorial exploratorio con una muestra de 298 trabajadores y análisis convergente y discriminante con una muestra de 226 trabajadores. La escala final tenía 12 ítems en una estructura de 3 factores (fiabilidad compuesta > 0,70) y varianza explicada del 65,6%. El estudio propone una integración de la literatura sobre comportamiento ético, contraproducente y de desempeño laboral y presenta resultados que indican la idoneidad de la escala para ser utilizada en futuras investigaciones.

Palabras clave: comportamiento ético, comportamiento antiético, trabajo, escala.

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Unethical behavior leads to increasing costs to all society. In Brazil, in environments with high corruption, public companies obtained higher expenses and lower revenue gains (Lopes et al., 2018). This compromises the company's reputation and profits, fostering organizations to manage ethical behaviors and encouraging research on the subject (Wiernik & Ones, 2018).

The damage caused by unethical behavior is a consequence of norm, principle, and moral code violations (Kaptein, 2008). Unethical actions within the work context affect goal achievement and promote a context of contagion for other employees who, in turn, divert organizational resources to their own advantage or that of third parties (Wiernik & Ones, 2018). These impacts of unethical action demonstrate the need to investigate the circumstances in which unethical behaviors occur, as well as to identify unethical behaviors present in a given context, how often they occur, what are their work impacts, which organizational indicators are related to their emission and what organizational decisions can decrease their emission. Instruments for measuring accurately unethical behaviors is the first step for answering these questions.

To access these behaviors, some studies employ problem situation descriptions to obtain individual judgments, accessing steps prior to behavior emission, such as decision-making processes (Shtudiner & Klein, 2020). Others apply questionnaires in which leaders evaluate their followers, or where each individual evaluate their colleagues, termed hetero-reports (Kaptein, 2022). The most frequent instruments, however, comprise self-reports, in which individuals claim (or not) to have engaged in specific behaviors described in the questionnaire items (Randall & Fernandes, 1991). This perspective, however, is biased regarding social desirability, which must be accounted for. The main point of this bias is that individuals more motivated to obtain social approval tend to mask inappropriate behavior, producing results that may not correspond to reality (Randall & Fernandes, 1991).

Furthermore, the cultural characteristics of these instruments must also be considered, as most have been developed in English and convey cultural aspects from where they were developed, in addition to being directed to specific work groups (Russell et al., 2017). Adding to this discussion, Bernardi (2006) shows in a survey in 12 countries that social desirability increases when the country's degree of individualism decreases and the degree of uncertainty avoidance increases. Considering that most research on ethical behavior has been carried out in samples called WEIRD (Veetikazhi et al., 2020) and that Brazil has been characterized as a more collectivist country with greater emphasis on high avoidance of uncertainty and power distance (House et al., 2004), it is necessary to investigate the effects of social desirability and the strategies indicated to improve the quality of measures of ethical behavior.

In order to develop a more comprehensive and generalizable scale in terms of the target audience, a consensus taxonomy of ethical/unethical behaviors based on the most frequently described aspects in the specific literature will be employed. Thus, this study aims to build and collect evidence of validity to an Ethical Behavior at Work Scale in Brazilian Portuguese that includes everyday behaviors and is applicable to most occupations. To this end, the main theories that define this phenomenon are first presented, alongside methodological challenges regarding the development and use of (un)ethical behavior measurement instruments. Two studies are then presented, the first describes the construction of the scale and the second aimed to find evidence of validity through an Exploratory Factor Analysis (EFA) and convergent and discriminant validity analysis for the following scales: unethical behavior, counterproductive behavior and work performance. After describing the results, the article concludes with a discussion of the findings, limitations and general contributions.

(Un)ethical Behavior at Work

The study on work ethics employs several terms to refer to unethical behaviors at work, which share the same nomological network, including corrupt (Modesto & Pilati, 2020), antisocial (Grosch & Rau, 2020), deviant (Bennett & Robinson, 2000) and counterproductive (Spector et al., 2006) behaviors. Thus, limits and conceptual overlaps must first be discussed.

The violation of conduct standards comprises the underlying concept of unethical behavior (Kaptein, 2008). However, distinguishing unethical behavior from other constructs that comprise breaking social norms is a broadly questioned criterion (Kaptein, 2008; Wiernik & Ones, 2018).

The main authors in behavioral ethics argue that social norms are broader than organizational norms, so unethical behavior comprises a construct that includes more general norms than deviant behaviors that, in turn, refer to strictly organizational norms (Kaptein, 2008). Other authors claim that a behavior can be contrary to organizational norms and still be consistent with societal norms (e.g., external reporting), or consistent with organizational norms and contrary to social norms (e.g., deceiving customers) (Treviño et al., 2014). From this perspective, two distinct constructs could be defined, namely unethical behavior and deviant behavior. However, even though both deal with norm breaking, one is focused on breaking broader social norms and the other on breaking organizational norms, with no overlap between them (Treviño et al., 2014).

A clear concept of unethical behavior could be obtained returning to Kant's philosophical principles, in which unethical practices are defined as those that exploit others or undermine their ability to act autonomously (Wiernik & Ones, 2018). Actions that provide unfair advantages, such as privileged information or the subversion of laws or regulations, are included in this concept (Wiernik & Ones, 2018). Thus, unethical employee behaviors are defined as the actions and behaviors that employees commit to deceive or exploit others or that provide an unfair advantage in the service of some other purpose to themselves, their organization, or their associates (Wiernik & Ones, 2018).

Recent studies propose that unethical behavior is part of the broader domain of counterproductive behavior. The definition of counterproductive behavior includes all employee behaviors that harm an organization's legitimate interests, even those that potentially contribute to illegitimate organizational interests, such as pro-organizational unethical behaviors (Wiernik & Ones, 2018). Although some authors argue that pro-organizational unethical behaviors may not cause prejudice (Kaptein, 2008), recent research demonstrates that unethical behaviors in favor of organizational goals, also unethical, harm many stakeholders, including customers (Wiernik & Ones, 2018).

Unethical behavior, as well as counterproductive behavior, are a part of job performance models. Performance is defined as any individual action that furthers the organization's objectives to varying degrees (Campbell & Wiernik, 2015;

Russell et al., 2017). Rotundo and Sackett (2002) describe three performance components in their literature review: task performance, comprising behavior that contributes to the provision of a certain service; organizational citizenship behavior, consisting of behavior that contributes to achieving the organization's goals; and counterproductive performance, which consist in behaviors that prejudice the well-being of an organization. Campbell's model identifies eight factors, including counterproductive behaviors (Campbell & Wiernik, 2015). Thus, the proposal to include (un)ethical behavior in work performance models is relevant when defining performance as actions within the work context and categorizing unethical behavior as one of these actions (Russell et al., 2017). These perspectives contribute to the integration of theoretical ethical behavior, counterproductive behavior and performance models and allow a broader view of unethical behavior in the workplace.

In this sense, Russell et al. (2017) developed one of the most comprehensive studies to identify the dimensions of unethical behavior in North American professionals within the context of individual ethical performance. The identified dimensions were as follows: truthfulness (the individual provides true information about a product or service), conflict of interest (the individual recognizes situations that involve personal gain versus achieving organizational, professional or public objectives), intellectual property (the individual does not violate third-party intellectual property rights), confidentiality (the individual maintains adequate confidentiality with respect to customer, co-worker and organization information), unfair treatment (the individual offers an unfair advantage to his/herself or others), defamation of others (the individual maliciously harms the reputation, work or performance of third parties), workplace bullying (the individual subjects others to physical or psychological harassment), whistleblowing (the individual reports malicious, harmful or illegal behavior to the appropriate authority), abuse of power (the individual uses the power of his/her position to coerce others to do something unethical or illegal or to retaliate against whistleblowers), and rule abiding (the individual does not violate laws, policies or contractual arrangements). This taxonomy integrates ethical performance and unethical behavior aspects to provide behavioral dimensions common to varied occupations and comprises a basis for systematic ethical performance studies.

Another proposal has been used to broaden the perspective of this construct. The study of (un)ethical behavior would include ethical and unethical behaviors, in order to relate them as follows: unethical behavior contrary to accepted moral norms (e.g. lying, cheating, stealing), routine ethical behavior that meets the minimum moral standards of the society (e.g. honesty, respect for others), and extraordinary ethical behavior that goes beyond these minimum moral standards (e.g. donations, denunciation) (Treviño et al., 2006). It does not, however, clearly distinguish unethical and counterproductive behavior, as it identifies unethical behaviors present in the counterproductive behavior domain, like disrespect to others.

To the purpose to promote a consensus taxonomy including (un)ethical behavior in the counterproductive literature and delimitates its dimensions, we propose the inclusion of behaviors and dimensions identified by Russell et al. (2017) and Treviño et al. (2006) in the Wiernik and Ones (2018) definition of unethical behavior. Thus, in the present study, unethical employee behaviors are defined as the actions and behaviors that employees commit to deceive or exploit others or that provide an unfair advantage in the service of some other purpose to themselves, their organization, or their associates (Wiernik & Ones, 2018), consisting of a part of the broader domain of counterproductive behavior and inserted in the context of individual ethical performance.

To develop the scale, we will consider behaviors contrary to accepted moral norms, routine ethical behavior that meets the minimum moral standards of the society and extraordinary ethical behavior that goes beyond these minimum moral standards that are within the dimensions of ethical performance and that are intended to deceive or exploit others or that provide an unfair advantage. Thus, it will be possible to develop a comprehensive and generalizable scale of (un)ethical behaviors.

In regard to the scales in use, some have applied very similar development methods. The Newstrom and Ruch (1975) scale is noteworthy among the most employed measure, considered the first applied measure of observed unethical behavior at work. The authors employed previous work ethics studies and reports to develop a unifactorial scale with 17 items and a Cronbach's alpha of .79 (Akaah, 1992). Kaptein (2008) developed a scale referring to observed unethical behaviors of the organization's stakeholders based on company codes of conduct. The final scale resulted in 37 items in five subscales: financiers (α=.93), customers (α=.93), employees (α=.90), suppliers (α=.95) and society (α=.93) behaviors. The use of existing items was also employed by Russell et al. (2017), who developed a set of 10 ethical performance dimensions using literature regarding ethical behavior, professional ethics codes, critical ethical performance incidents in a large government organization, and behavioral ethics research items. When appropriate, English fonts and US-based codes were used.

Thus, all these scales present cultural characteristics from where they were developed, as well as specific occupational characteristics. However, the use of items present in previous studies has been widely applied in the development of the main instruments in this field. This is also evident in the construction of scales regarding counterproductive behaviors, i.e., Spector et al. (2006), who used a compilation of previous studies to develop a self-report counterproductive behavior scale. In addition, Bennett and Robinson (2000) also used previous research to complement the procedure for developing a scale of deviant behavior at work, although they asked several employees for examples of deviant behavior at work.

Regarding access to these behaviors, some differences are noted in relation to the referential the behavior is being evaluated in. On some scales, participants evaluate their own behavior (Bennett & Robinson, 2000; Spector et al., 2006). In others, they evaluate others (Kaptein, 2008; Newstrom & Ruch, 1975). Within this second approach, one can verify the identification of the referent when discussing another specific person, or a group of people or work unit (Zuber & Kaptein, 2014). This referential change has been applied to minimize the effect of social desirability and increase response rates in relation to self-reports. However, there is no consensus on the effectiveness of this referential change in accessing unethical behavior (Zuber & Kaptein, 2014). Another option comprises methods that minimize the effect of social desirability in the construction of self-reported measures, discussed below.

Social Desirability

The fact that ethics research deals with sensitive issues in the workplace also creates methodological challenges. Although self-report questionnaires are frequently used in business ethics research, empirical studies have observed a high degree of respondent susceptibility regarding ethics questions

(Randall & Fernandes, 1991). This is due to the motivation of individuals to achieve social approval, which interferes with the way they interact with each other (Costa & Hauck Filho, 2017). This sensitivity can mask the relationship between two or more variables, resulting in false correlations (Randall & Fernandes, 1991).

Bäckström (2007) developed a model for rewriting items to neutralize evaluations. According to this model, an utterance that uses more neutral words makes it less susceptible to social desirability, as in the item "I steal belongings from other employees" which can be rewritten to "I take home belongings from other employees". Thus, terms that contain pejorative content are replaced by others that express the same information, but attenuated, so that the scale's reliability and validity are not impaired. This was developed according to the following steps: (1) item reformulation to more neutral content; (2) item desirability rating, in which original and modified items are evaluated according to their social desirability on an intensity scale; (3) calculation of the means and standard deviations of the scale's items, in which items with a mean close to the midpoint of the scale are considered neutral and items with a mean close to the extremes of the scale are either highly desirable or undesirable; (4) rewriting and reevaluation of items with means close to the extremes, until obtaining maximum neutrality.

The use of a method that proposes to reduce social desirability in scales that measure ethical or unethical behavior contributes to greater effectiveness in self-report measures, since only guaranteeing anonymity is not enough to reduce response bias (Randall & Fernandes, 1991). Despite their relevance, (un)ethical behavior measures applying this method in the Brazilian context are not available. Thus, an unethical behavior scale was developed here in applying item content neutralization as an alternative to reduce this effect.

Study 1: Scale Development

The aim of this study was to develop an unethical behavior at work scale. Each item was defined according to existing scales. A search of published articles in this regard was carried out at the CAPES journal platform using the terms "ethical behavior OR unethical behavior" in the subject field in English, Portuguese, Spanish, Italian and French. Peer-reviewed articles published between 01/01/2000 and 11/14/2019 were selected. The search resulted in a total of 610 articles. Sixty-eight different scales measuring ethical/unethical behavior were identified. From these, 196 items were extracted after removing similar items. The list of items was then reduced to 87 after removing items with content from very specific work contexts. To ensure that the selected items represent appropriate behaviors in the Brazilian context, seven ethical behavior categories were applied: legality, usurpation of the organization's resources, loyalty to the organization, use of power, transparency, respect for others and loyalty to the group (Resende et al., 2014). These categories were defined based on interviews with Brazilian workers, in which they were asked to define ethical behavior and examples of unethical behavior in their organizations.

Items were then translated to Brazilian Portuguese by a translation and a back-translation process, and rewritten following the neutralization process, which consists of replacing terms that may lead to social desirability. A social desirability analysis of each item was then performed by 23 undergraduate psychology students, scoring on a scale from 1 (totally undesirable) to 7 (totally desirable). Items considered neutralized displayed an average close to 3 and a standard deviation of less than 1. Items that did not fit this condition were rewritten and analyzed by other undergraduate students until they did.

The final list of items was submitted to a theoretical analysis conducted by semantic and judge analyses. The first comprised an analysis carried out by 11 specialists in social, work and organizational psychology judges, according to clarity, relevance and difficulty, ranging from a scale from 1 to 5. In this step, two items were removed and two were rewritten and their social desirability reanalyzed. Then, another eight judges analyzed the items according to theoretical relevance to verify if they describe (un)ethical behavior in line with our comprehensive and integrative approach. Judge agreement should be at least 80%. After removing items that did not fit this condition, a final list of 25 items was obtained. The scale validity evidence assessment is reported below.

Study 2: Scale Validity Evidence Assessment

The aim of this study was to describe validity evidence for the scale developed in the previous study through an Exploratory Factor Analysis (EFA) and a convergent and a discriminant analysis with other related constructs according to the literature.

Method

Participants

A convenient sample of 298 workers from different organizations participated in the survey, most female (73%), with a complete specialization degree (46%), working for 9.7 years (SD = 9.3) and public servants (57%). Mean participant age was 40 years old (SD = 10.4).

Only the 226 workers that responded completely all the questionnaires were included in the convergent and discriminant analysis. Most were female (65%), with a complete specialization degree (40.3%), working for 9.8 years (SD = 9.4) and public servants (47%). Mean participant age was 39 years old (SD = 10.7).

Instruments

The Ethical Behavior at Work Scale (EBAW) constructed in the previous study was employed. Additionally, to verify discriminant validity, we applied the translated unethical behavior scale developed by Newstrom and Ruch (1975), the counterproductive behavior at work scale (CBW-BR) developed by Nascimento et al. (2015), and the adapted Role Performance at Work scale developed by Ferreira et al. (2016). The egoistic and moralistic self-enhancement scale developed by Vecchione et al. (2013) was also applied to analyze the social desirability.

Ethical Behavior Scale (Newstrom & Ruch, 1975).

This scale consists of 17 items that describe unethical behaviors. Items are answered on an 11-point scale, ranging from 0 (not at all characteristic) to 10 (totally characteristic). The measure presents a unifactorial internal structure (α = .81; e.g., accepting gifts/favors in exchange for preferential treatment). One item belonging to the original scale was excluded from the analysis due to a factor load lower than .39.

Workplace Deviance Scale-BR (Nascimento et al., 2015).

This scale consists of 19 items that describe counterproductive work behaviors (CWB). The items were answered on a 7-point frequency scale, ranging from 1 (never) to 7 (always). The scale contains two factors, interpersonal (CWB-I, 7 items; α = .80; e.g., insulting someone at work) and organizational (CWB-O, 12 items; α = .85; e.g., little dedication to work). Two items belonging to the organizational factor were excluded from the analysis due to a factor load lower than .39.

Role Performance Scale at Work (Ferreira et al., 2016).

An adapted version containing 9 items describing job performance was used. The items were answered on a 7-point scale, ranging from 1 (strongly disagree) to 7 (strongly agree). The scale is unifactorial (α = .84, e.g., I achieve work goals).

Egoistic and Moralistic Self-enhancement Scale (Vecchione et al., 2013).

This scale consists of 14 items that describe highly desirable qualities. Items are answered on a scale ranging from 1 (strongly disagree) to 5 (strongly agree). The measure presents an internal structure organized into two factors, egoistic self-improvement (7 items; α = .77; e.g., I have always been able to control my emotions) and moralistic self-improvement (7 items; α = .80; e.g., I never disobeyed orders, even when I was a child).

The scale translation process consisted in translating the items from English to Portuguese and then performing a reverse translation by an independent translator using the back-translation method. Semantic equivalence and item wording adaptation were then evaluated by judges. The items resulting from this process were applied following the original scale's instructions.

Data Collection Procedure and Ethical Considerations

The scales were applied via a Google Forms electronic form between April and June 2020, through a link released by email lists and social networks employing the snowball technique. Participants were informed that participation was voluntary, they could interrupt their participation at any time and the confidentiality of the provided information was ensured through a Free and Informed Consent Term presented at the beginning of the instrument. The participant needed to indicate the acceptance of the term to proceed with the research. Concerning the Ethical Behavior at Work Scale developed here, the following instruction was indicated: "Below, you will find a list of behaviors that people present in the work environment, based on the last 6 months, use a scale of 1 (never) to 5 (always) to answer".

Data Analysis Procedures

An Exploratory Factor Analysis of the Ethical Behavior at Work Scale (EBAW) was performed using the Factor software. The analysis was performed using a polychoric correlation matrix and the Unweighted Least Squares (ULS) extraction method. The number of factors to be retained was decided by applying the Parallel Analysis technique with random permutation of the observed data employing the Promin rotation. Each item must present a factor loading above .39 to remain in the analysis (Hair et al., 2018).

Model adequacy was analyzed by the Goodness of Fit Index (GFI) and Root Mean Square of Residuals (RMSR) indices, to also perform a Semi Confirmatory Factor Analysis. The values of these indices must be less than .05 for RMSR and greater than .90 for GFI (Brown, 2006). In addition, the adequacy to a one-factor model was analyzed by the following indices: Unidimensional Congruence (UniCo), Explained Common Variance (ECV) and Mean of Item Residual Absolute Loadings (MIREAL). The model is considered suitable for a one-factor structure at UniCo > .95, ECV > .85 and MIREAL < .30 (Ferrando & Lorenzo-Seva, 2018).

The internal consistency of the factors was verified by the Composite Reliability Index. Factor stability was assessed using the H index, which assesses how well a set of items represents a common factor. High H values (> .80) suggest a well-defined latent variable, which is more likely to be stable across different studies (Ferrando & Lorenzo-Seva, 2018).

The average variance extracted (AVE) and the Pearson's correlation were used as a way of analyzing convergent validity. The AVE must be greater than .50 (Hair et al., 2018) and strong correlations were considered as above .70 (Dancey & Reidy, 2018). Discriminant validity was analyzed by Fornell-Larcker, the square root of the AVE of a construct must be greater than the correlations between the constructs, and HTMT criterion, the values must be below .90 for conceptually similar constructs and .85 for conceptually distinct constructs (Hair et al., 2018).

Results

Data normality was assessed using the Kolmogorov-Smirnov and Shapiro-Wilk tests, which indicated non-normal distribution. However, bootstrapping procedures were performed (1000 re-samplings; 95% CI BCa) in which the values obtained from the averages of the responses of the applied scale items were within the range determined by the bootstrapping, evidencing adherence to a normal distribution.

Extreme multivariate cases corresponded to only 1.6%, so they were not withdrawn from the sample (Tabachnick et al., 2018). Since we only consider the questionnaires fully answered, no missing data were found. Bartlett's sphericity (1199.0, $df = 66$, $p < .001$) and KMO (.64) tests suggested the interpretability of the items' correlation matrix. The parallel analysis suggested three factors as being the most representative for the assessed dataset.

Among the 25 scale items, nine with loads lower than .39 were initially removed. Four items displaying a cross loading pattern (items with factor loadings above .39 in more than one factor) were removed. The final structure comprised 12 items distributed in three factors with an explained variance percentage of 65.6%. The factor loadings of the items, AVE values, the Composite Reliability indices and the factor score replicability estimates (H-index) are presented in Table 1. The first factor was defined as "Use of Job Position", characterized as taking advantage of a job position, referring to presence of conflicts of interest and intellectual property infringement. The second was defined as "Whistleblowing", comprising unethical behavior reporting to competent authorities, and the third, defined as "Deception", referring to working time restrictions and personal gains in the use of organizational resources, in the absence of professional transparency and in breaking rules.

The instrument fit indices were adequate (RMSR = .04; GFI = .99). The composite reliability of the factors was also acceptable (above .70) for all factors. The AVE was higher than

Table 1
EBAW Factor Structure

Item	Factor 1	Factor 2	Factor 3
1. I gain benefits using my position.	.859		
2. I use my position to achieve personal goals at work.	.648		
3. I agree to receive benefits in exchange for favors.	.627		
4. I demand to be recognized for the work of others.	.514		
5. I report potential conflict of interest issues.		.930	
6. I report unethical acts to appropriate management.		.702	
7. I only perform my function and do not interfere with the company's irregularities.*		-.503	
8. I talk to a co-worker when I should be working.			.727
9. I extend my break longer than agreed.			.682
10. I use office supplies (paper, pens, xerox) to perform my personal activities.			.674
11. I change the number of worked hours to more.			.614
12. I say I did something I didn't do.			.450
Composite Reliability	.762	.766	.769
AVE	.454	.537	.365
Latent H	.837	.937	.806
Observed H	.566	.873	.728

Note. Item 7 has a negative sign because it is an inverted item on the scale.

.50 only to factor 2 (Whistleblowing). The factorial structure replicability measure, in the form of the H-index, suggests that factors 1 (Use of the position) and 3 (Deception) may not be replicable in future studies (H < .80). The unifactorial structure could not be confirmed, as only the MIREAL index was satisfactory with a value close to the cut-off point (UniCo = .75; ECV = .63; MIREAL = .29).

The descriptive analysis demonstrated that Newstrom and Ruch's measure of unethical behavior exhibited a low response frequency (M = .83; SD = .81), as well as the EBAW Use of Job Position (M = 1.25; SD=.40) and Deception factors (M = 2.92; SD = 1.02). Concerning counterproductive behaviors, the frequency of CWB-I (M = 1.86; SD = .75) was higher than CWB-O (M = 1.63; SD = .68). The measured social desirability was moderate (egoistic: M = 3.21; SD = .65; moralistic: M = 2.43; SD = .77), and performance exhibited the highest average response frequency (M = 6.08; SD = .66).

Table 2 presents the Fornell-Larcker criterion and correlation data analyses. The correlation between the EBAW and the two social desirability factors are presented in Table 2. Only the Deception factor was negatively and significantly correlated with the two desirability factors, in which a stronger correlation to the moralistic factor was observed. When compared with the other scales, the correlation between the EBAW Deception factor and the moralistic factor was greater than the correlation between this social desirability factor and unethical behavior, CWB-I and CWB-O. The correlation between the EBAW Deception factor and the egoistic factor was greater than the correlation between this social desirability factor and unethical behavior and the CWB-I, but lower than the CWB-O.

According to the Fornell-Larcker criterion (Table 2), the correlation between EBAW Deception factor and unethical behavior and CWB-O were greater than the square root of the AVE. However, all the HTMT values is under than .90, what demonstrates discriminant validity (Table 3). HTMT is considered by the literature (Henseler, 2021) to be more robust in identifying lack of discriminant validity.

Discussion

This study aimed to build and collect evidence of validity for the ethical behavior at work scale (EBAW). The scale presented satisfactory psychometric indices of sample adequacy and explained variance, indicating success in achieving the general objective of this study. The 12-item multifactorial structure reported in Study 2 was corroborated by satisfactory fit and reliability indices and followed theoretical criteria according to

Table 2
Correlation and Fornell-Larcker criterion

Dimension	1	2	3	4	5	6	7	8	9
1.EBAW1	.67								
2.EBAW2	-.05	.73							
3.EBAW3	.18**	.04	.60						
4.Unethical	.35**	-.01	.59**	.53					
5.D.Moral.	-.07	-.01	-.44**	-.39**	.56				
6.D.Egoist.	-.00	-.08	-.27**	-.17*	.46**	.61			
7.CWB-O	.28**	-.00	.63**	.71**	-.39**	-.29**	.60		
8.CWB-I	.15*	.01	.30**	.40**	-.28**	-.11	.37**	.65	
9.Perform.	-.13*	-.01	-.26**	-.24**	.17*	.40**	-.31**	-.06	.63

Note. N = 226; EBAW1 = Use of Job Position; EBAW2 = Whistleblowing; EBAW3 = Deception; Unethical = Newstrom and Ruch's Unethical Behavior Scale; D.Moral. = Moralistic Desirability Factor; D.Egoist. = Egotistic Desirability Factor; CWB-O = Organizational Counterproductive Behavior; CWB-I = Interpersonal Counterproductive Behavior; Perform. = Performance. The values on the diagonal represent the square root of the AVE. ** p < .001; * p < .05

Table 3
Heterotrait–monotrait ratio (HTMT) criterion

Dimension	Unethical	D.Moral.	D.Egoist.	CBW-O	CBW-I	Perform.
EBAW 1	.76	.32	.23	.59	.30	.28
EBAW 2	.12	.13	.15	.11	.13	.14
EBAW 3	.67	.61	.40	.85	.40	.37

the main definitions and measures of these behaviors.

The scale development described in Study 1 applied the definition proposed by the recent literature in which unethical behaviors have the purpose of deceiving or exploiting other people or providing an unfair advantage in the service of some other purpose (Wiernik & Ones, 2018) and its integration with dimensions of ethical behavior and performance. The item neutralization step was performed following guidelines indicated in the literature (Bäckström, 2007) and resulted in a scale that contains examples of (un)ethical behavior at work.

In Study 2, the final scale resulted in a solution with items that contain light, every day and general behaviors, applicable to most occupations in Brazil, in line with the general objective of the study. Factor 1 was termed Use of Job Position and gathered items that refer to the dimensions pointed out by Russell et al. (2017) such as power use, unfair treatment, intellectual property and conflict of interest. These behaviors require one to use their position for personal gain. Factor 2, called Whistleblowing encompasses behaviors in which the person spontaneously brings relevant information about irregularities to the attention of an authority. Thus, this factor encompasses what Treviño et. al (2006) calls extraordinary ethical behavior. Finally, factor 3, called 'Deception', includes behaviors in which one purposely provides false information to obtain personal gain, such as the intellectual property and rule compliance dimensions reported by Russell et al. (2017). The scale represents most of the dimensions pointed out by Russell et al. (2017) and by Treviño et. al (2006), and are in line with the definition of unethical behaviors by Wiernik and Ones (2018). Behaviors that depend on the occupation of higher status positions, such as a breach of confidentiality, position role, such as a breach of veracity, and behaviors that extrapolate the definitions employed in this study, such as those referring to social interactions, were not considered, i.e., defamation and bullying. Thus, the scale includes behaviors identified by Brazilian samples as (un)ethical and accessible to most occupations. In addition, the solution presents a short scale and allows the identification of a very broad set of behaviors that includes most construct dimensions.

The social desirability bias indicates that individuals who are more motivated to obtain social approval tend to mask inappropriate behavior (Randall & Fernandes, 1991). The results concerning social desirability and EBAW indicate that the Whistleblowing and Use of Job Position factors were not influenced by social desirability. The Deception factor demonstrated a negative and moderate correlation with the moralistic factor and a negative and low correlation with the egoistic factor. The Deception factor includes behaviors that people perform to obtain personal gain, such as using organizational resources for personal activities and breaking rules. This may indicate that these behaviors are more associated to the tendency to mask impulses and to socially inappropriate behaviors, suggesting that desirability may be an antecedent of these behaviors.

Still about the social desirability, the correlation with the unethical behavior scale and with the CWB factors were lower compared to the correlation with the EBAW Deception factor. Thus, the tendency to deny socially deviant impulses exhibits a stronger relationship with mild and routine unethical behaviors, and perhaps easier to access, than with more serious and non-neutralized behaviors. Although the results do not indicate a significant reduction of social desirability in EBAW, the construction of an unethical behavior scale employing an item neutralizing process is extremely relevant to the literature in the area.

Study 2 aimed to gather evidence of validity and carry out a convergent and discriminant analysis with previous scales of unethical behavior, CWB and work performance. The Use of Job Position and Deception factors were moderately and positively correlated with the unethical behavior scale (Newstrom & Ruch, 1975). This scale comprises mostly items about passing on false information to obtain personal gain, which corroborates the greater correlations with the Deception factor.

Despite measuring the same phenomenon, the scale developed in this study comprises light and routine behaviors present in lower hierarchy positions within organizations. The unethical behavior scale (Newstrom & Ruch, 1975), on the other hand, presents descriptions of less accessible behaviors depending on the position, in addition to theft and breach of confidentiality behaviors, which were not included in the EBAW. This difference in itemized behaviors may have decreased the intensity of the detected correlations. In addition, the correlation between the unethical behavior scale (Newstrom & Ruch, 1975) and the CWB-O was high, indicating that these measures exhibit similar contents. Despite this, the content analysis indicated that the EBAW scale measures light (un) ethical behavior directed to an organization. This was supported by the Fornell-Larcker criterion. The shared variance between EBAW Deception factor and unethical behavior and CWB-O were greater than the shared variance within. This result shows that the variance between these measures explained more than the latent construct. However, despite the similarities of the measurement items, which describe organizational resource abuse behaviors, evidence verified by the HTMT criterion showed that the construct measured by EBAW is truly distinct from the other constructs and captures information that other measures do not.

The work performance analyses in Study 2 indicate that the greater the unethical behavior, the lower the performance, albeit with a weak relationship. An integrative proposal was presented, in which unethical behaviors make up the performance model and, since performance is a broad construct, the dimension of task performance was measured (analogous to the technical performance dimension proposed in the Campbell model). The results demonstrate that unethical behaviors are more strongly associated to the counterproductive behavior dimension than to the task dimension of performance. The difference in the intensity in the relationship between these constructs may be based on the content of the items in each measure. The task performance dimension is associated to behaviors directed to the tasks to be performed at work and display a positive content of goal achievement. On the other hand, the CWB-O presents behaviors that undermine the achievement of organizational

objectives, representing a negative behavior perspective similar to the perspective of unethical behaviors. Furthermore, the performance measured in the present study was also more strongly correlated with CWB-O than with CWB-I, which may be related to the impersonal and work-oriented content and organization of the items on both scales. Thus, these results indicate that unethical behaviors are more related to harmful behaviors directed at the organization than to the performance of work tasks.

The results also demonstrate that the Whistleblowing factor did not present significant correlations, which reinforces a previous discussion in the literature in which some authors describe complaints as a type of ethical behavior that goes beyond the minimum expected by society (Treviño et al., 2014). Others claim that it goes beyond the theoretical definition of (un)ethical behaviors and may comprise a divergent nomological network (Wiernik & Ones, 2018). In the present study, reporting unethical behavior to the competent authority differs from (un)ethical conduct, and may be characterized as a construct not related to behaviors that seek to deceive or take advantage of certain situations, which undermine the achievement of organizational objectives and with actions that favor organization objectives.

Conclusion

An ethical conduct is constituted from the moral foundations of a given community, comprising a diversity of conducts present in the most varied cultures. The measure developed in this article contains items in agreement with worker perceptions of ethical behavior in Brazilian culture. Thus, the scale developed in the present study considered these particularities when adapted to Brazilian Portuguese and comprises an instrument that measures mild unethical behavior in the work context.

However, despite the adoption of measures to reduce response bias, no social desirability reduction due to item neutralization was achieved. Given the relevance of social desirability in the study of (un)ethical behavior, other methods should be employed to this end. We suggest the item neutralization method in the construction of measures of (un) ethical behavior alongside an anonymity report, a statistical control of social desirability and, when appropriate, evaluation by others. Future studies should investigate other methodologies to minimize this bias when evaluating such behaviors, for example, through the balanced construction of items using quadruple measurements (Hauck Filho & Valentini, 2019).

Concerning the employed method, the sample comprised mostly women, public servants and people with higher education, which may have led to study biases. Another limitation comprises the data collection procedure, as the type of adopted collection may have interfered with the extent of social desirability, since online collection results in a greater guarantee of anonymity than face-to-face collection. Furthermore, the referent change must be investigated in relation to other constructs to verify potential result influencing, depending on the studied variables. Thus, the replication in different samples and contexts is desirable.

Theoretical convergence analyses indicated that the EBAW displays a moderate correlation with other unethical behavior measure. This analysis also indicated that some unethical behaviors overlap with counterproductive behaviors at work, supporting the discussion on the definition of ethical and unethical behaviors and their relationship with other constructs. Results associating unethical and counterproductive behaviors with work performance were also obtained. Therefore, our findings corroborate the most recent models and integrate the literature on (un)ethical, counterproductive and work performance behavior.

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