

## Psychological variables related to corruption: a systematic review

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**Título:** Variables psicológicas asociadas a la corrupción: una revisión sistemática.

**Resumen:** En la actualidad, la corrupción constituye uno de los principales problemas psicológicos, sociales, económicos y políticos a nivel mundial. El objetivo del presente estudio es analizar las variables psicológicas asociadas a la corrupción a través de una revisión sistemática de las publicaciones entre 2008 y 2018. Tras realizar una búsqueda en las bases de datos *Psycinfo*, *Web of Science*, *Scopus*, *SciELO* y *Dialnet*, se encontraron 44 artículos que cumplían con los criterios de selección propuestos. Los grandes núcleos encontrados fueron la ética organizacional, creencias y valores culturales, moral y normas percibidas, y personalidad y variables relacionadas. En general, los resultados apuntan a que variables organizacionales como la percepción de la conducta de sus dirigentes o las estrategias de justificación están relacionadas con la corrupción. Valores culturales meritocráticos y materialistas también han sido ligados a la conducta corrupta, como ocurre en el caso de la percepción de un entorno corrupto y de las normas sociales. En cuanto a la personalidad, rasgos como el narcisismo y la psicopatía se encuentran íntimamente ligados a este fenómeno. Por otra parte, variables como la percepción del poder o el sexo de los participantes han recibido un sustento empírico ambiguo.

**Palabras clave:** corrupción; normas percibidas; valores culturales; ética organizacional; revisión sistemática.

**Abstract:** Nowadays, corruption is one of the most important psychological, social, economic and political issues worldwide. The present paper aims to analyse psychological variables related to corruption through a systematic review of publications from 2008 to 2018. After carrying out a bibliographic search in scientific databases such as *Psycinfo*, *Web of Science*, *Scopus*, *SciELO* and *Dialnet*, 44 papers were found to match selection criteria. Core topics have been organizational ethics, cultural beliefs and values, perceived norms and moral, and personality and related variables. Overall, results have shown that organizational variables such as leaders' behaviour and justification strategies are linked to corruption. Meritocratic and materialist values have also been linked to corrupt behaviour, just like perceiving a corrupt environment and social norms. In regard to personality, features such as narcissism and psychopathy are deeply connected with this phenomenon. On the other side, perception of power and gender have a mixed empirical support.

**Keywords:** corruption; perceived norms; cultural values; organizational ethics; systematic review.

### Introducción

According to the most recent data available, one out of every four people in the world acknowledge having paid a bribe to members of the public administration in the past year (Transparency International, 2017). Moreover, more than half of those surveyed think the governments of their respective countries "are doing a bad job" in fighting corruption.

Corruption emerges as one of the greatest impediments to the development of an efficient system of government (Dong, Dulleck, & Torgler, 2012; Philp & Dávid-Barrett, 2015). In other words, corruption is the sign that something has gone wrong in the state's management (Rose-Ackerman, 1999, 2006). It produces millions of dollars of losses for States and the corresponding public administrations. This money is diverted from budgetary allocations destined for other purposes, such as fighting against poverty, combating malnutrition, and increasing the quality of life of millions of people (Azfar, Lee, & Swamy, 2001; Rose-Ackerman, 2006).

A generally accepted definition states that corruption is "the abuse of entrusted power for personal benefit" (Transparency International, 2009, p. 14). For other authors

(Andvig & Fjeldstad, 2001), corruption is present in bribery, which consists of payment given or received in a corrupt relationship, the very essence of corrupt behavior; embezzlement, which is based on misappropriation of public funds that should be administered for a different use; fraud, which includes the manipulation or distortion of information and/or events to benefit an intermediary (civil servant) from the political class and citizenry; extortion, which consists of money or other resources derived through coercion, violence, and threats of using force; and favoritism, which is based on designating public funds in an arbitrary way to favor certain people or groups.

In spite of this, some studies (Jancsics, 2014; Melgar, Rossi, & Smith, 2010) state that the concept of corruption varies widely across different societies, which means that certain practices are licit in some places but considered corrupt in others. In other words, corruption is far from being a homogeneous practice. Instead, it is a social phenomenon subject to the typical avatars of each society, such as norms, values, and rules. This means that corruption is a multifaceted phenomenon and difficult to capture because it adopts different forms depending on the context in which it develops (Andvig & Fjeldstad, 2001; Jancsics, 2014). Kingshott and Dincer (2008) explain that corruption among workers in the public sector has received considerable attention inside and outside academic circles due to the increase in studies on it. However, Ghoshal and Moran (2005) make it clear that multinational companies can also be affected when they sacrifice their social legitimacy by participating in corrupt activi-

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ties. In this regard, Argandoña (2003) also warns of the existence of corruption that occurs exclusively in the private sector. In fact, he says there are good reasons to suspect that it is more important than it seems, more extended than what is believed, and quite damaging to the organizations where it is found. This subtype of corruption is based on the conduct of a manager or employee who has certain power or influence over the performance of a task, function, or responsibility within an organization. This person acts against his/her duties and obligations with the organization, causes direct and indirect harm to it, and tries to benefit him/herself, third parties, or even another organization. However, Argandoña states that little research has been dedicated to this phenomenon, which has only recently begun to receive more attention.

Given that corruption has been studied from diverse disciplines, its explanatory causes vary, ranging from being a structural problem of the political and economic spheres to being the result of the moral decline of the individual, with its cultural differences (Kingshott & Dincer, 2008; Jancsics, 2014; Julián & Bonavía, 2017). Placing the focus on governmental corruption, Svensson (2005) points out that corruption is defined as the misuse of a public position to obtain private gain. However, if the focus becomes the illegal or illegitimate aspect of this behavior, corruption is defined as a practice where the power of a civil servant is used for personal benefit in a way that goes against the rules (Jain, 2001). From an economic approach, corruption has been defined as a set of payments to actors (both public and private) to incite them to ignore the interests of their superiors and favor the private interests of those who are bribing them (Rose-Ackerman, 2006). Philp and Dávid-Barrett (2015) point out that the most striking characteristic in the literature on corruption in the past 30 years has been the considerable increase in studies from the field of Economy, edging political scientists and human development researchers off the playing field. Along these lines, the perception of corruption among peers has traditionally been the strongest research area, especially within what is known as “behavioral economy” (Abbink & Serra, 2012). The main results have shown that the more a person perceives his/her peers as corrupt, the greater the probability that this person will commit a corrupt act in the future (Dong, Dulleck, & Torgler, 2012). If a corrupt environment is perceived, a person is more likely to underestimate the consequences of being discovered, increasingly questioning his/her own beliefs about what dishonesty means. Social distrust is produced, the perception of social norms is distorted, and a breeding ground for performing illegal and/or dishonest practices is created (Cialdini, Reno, & Kallgren, 1990; Gino, Ayal, & Arieli, 2009).

In addition, Fehr and Falk (2002) point out that the classic view of Economy (the human being as a rational agent) is simplistic and does not reflect the importance of non-monetary factors such as the desire for social approval or reciprocity. Some authors (Zaloznaya, 2014) indicate that, despite its geopolitical importance, social costs, and central

role in both the Political Sciences and economic research, corruption is a fairly uncommon research topic in Social Psychology. Thus, there are hardly any psychological theories to explain corrupt behavior (Julián & Bonavía, 2017). Connelly and Ones (2008) point out that the research on corruption can be analyzed from different levels, commonly called individual (micro-analysis) and national (macro-analysis). In the former, an attempt is made to discover the combined individual and situational characteristics that lead a person to perform corrupt behaviors; in the latter, the objective is to identify nations’ characteristics that cause corruption levels to increase.

Despite the relevance of this topic, little is known about the psychological antecedents of corrupt behavior. Few studies have analyzed corruption at the individual level (micro level) (see, for example, Tan, Liu, Zheng, & Huang, 2016; Wang & Sun, 2016; Zhao, Zhang, & Xu, 2016). Mocan (2008) suggests that this deficiency is due to the fact that the data on corruption are only available at the macro level (between countries), and so this is where the research has mainly focused its efforts. Likewise, it should be clarified that no systematic reviews have been carried out on psychological variables associated with corruption. Therefore, the purpose of the present study is to analyze the psychological variables associated with corruption by carrying out a systematic review of the publications between 2008 and 2018. In doing so, the aim is to identify the variables studied in relation to corrupt behavior and synthesize the main results related to corruption.

## Method

A systematic literature review was carried out following the presentation format and guidelines proposed by the PRISMA declaration (Moher, Liberati, Tetzlaff, Altman, & The PRISMA Group, 2009).

Furthermore, taking Petticrew and Roberts (2006) as a reference, the following guidelines were incorporated: a) identify relevant studies on the proposed topic; b) select, evaluate, and exclude/include the pertinent studies; c) locate and save the selected articles; d) group the information collected; and e) use a narrative method to synthesize the information. With regard to the last step, the choice of this method, rather than a meta-analysis, is due to the great heterogeneity in the articles studied (Petticrew & Roberts, 2006).

### Selection criteria for the studies

Taking into account the objective of the present study, the following criteria were used.

The inclusion criteria were the following: articles from scientific journals; published between 2008 and 2018; written in Spanish or English; empirical studies; with corruption as the dependent variable; and pertaining to some area of Psychology.

The exclusion criteria were the following: essays, theoretical or systematic reviews, book chapters, books, reviews or speeches; pertaining to areas of study such as Sociology, Economy, and Political Science; transnational studies; studies that only evaluated terms such as dishonest or immoral conduct; studies that only evaluated contextual variables.

### Databases and search strategy

Five databases were used (*Psycinfo*, *Web of Science*, *Scopus*, *Scielo*, and *Dialnet*) to perform the document search. Figure 1 shows the flow diagram followed as the search strategy.

First, the search was carried out in the *Psycinfo* database in the following way: the combination of descriptors *corrupt* OR *corruption* was used as the title of the document. Next, the time range was established as between the years 2008 and 2018, the type of record was limited to journal articles, the languages selected were Spanish and English, and the option to exclude duplicate documents was selected. Of the total number of resulting records, the titles and abstracts of 68 articles were examined, of which 52 were included.

Second, a search was carried out in the *Web of Science* database. Again, the search descriptors were *corrupt* OR *corruption* in the title of the document, and the dates were limited to the period between 2008 and 2018. Once the resulting records were shown, the search was refined using criteria similar to those mentioned above: in the section on the *Web of Science* category, *Applied Psychology*, *Multidisciplinary Psychology*, and *Social Psychology* were selected. In addition, the type of document (articles) and language (Spanish and English) limitations were established. From the total number of resulting records, the titles and abstract of six documents were examined, of which one was included.

Third, the *Scopus* database was used. The search descriptors were *corrupt* OR *corruption* in the title of the document. The time range was set at between 2008 and 2018, and the type of document was limited to articles. After obtaining the results for the records found, we continued to filter using

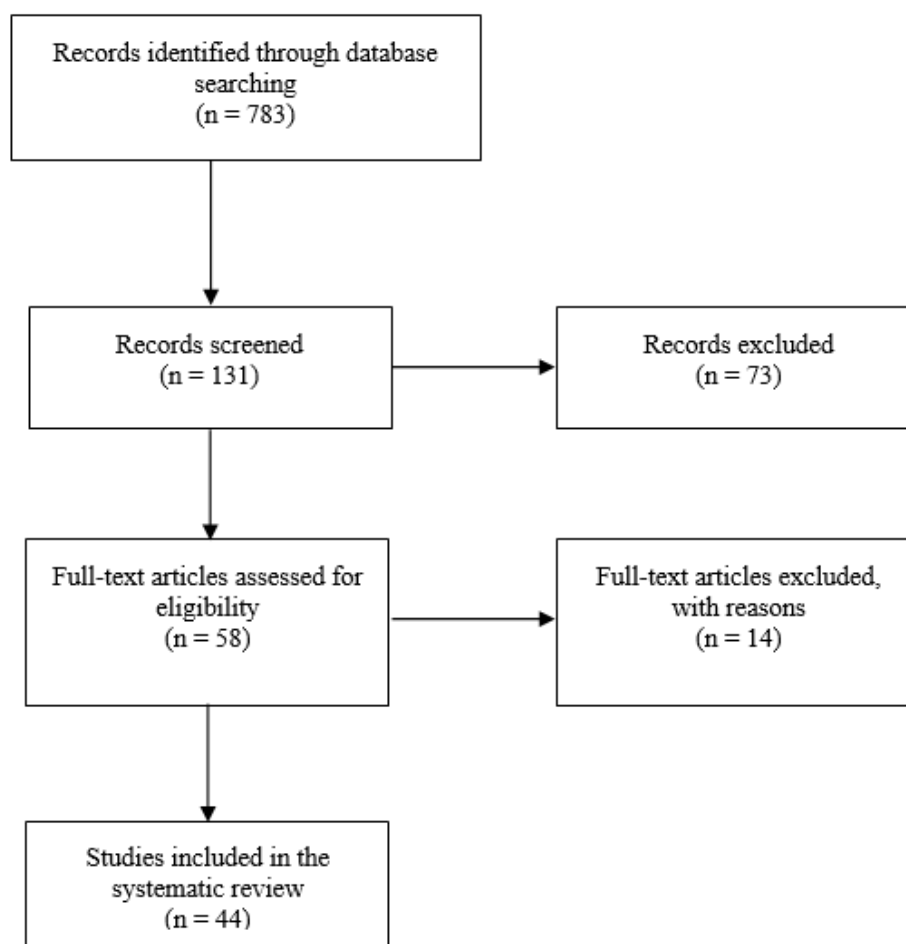
the following criteria: in the thematic area section, Psychology was selected; and in the section on language, both Spanish and English were selected. Once the resulting records had been obtained, the titles were read, which led to the exclusion of 267 documents. Finally, the abstracts of the documents included after the previous filter (45) were read, and two studies were selected for inclusion in this review.

Fourth, a search was carried out in the *Scielo* database with the descriptor *corruption*. After obtaining the records, a filter was performed by language (Spanish and English), year of publication (between 2008 and 2018), type of literature (article), and *WoS* thematic area (Psychology, Clinical Psychology, Social Psychology, and multidisciplinary Psychology). Next, the titles of the seven remaining records were examined, and one document was included for review.

Finally, a search was performed in the *Dialnet* database with the word *corruption*. Once the records had appeared, the search was refined again to obtain only journal articles (type of document), documents pertaining to Psychology and education (*Dialnet* topics), records that appeared between the years 2008 and 2018 (range of years), and the English and Spanish languages. From the total number of resulting records, the titles and abstracts of five documents were examined, none of which was included.

After this filtering process, the complete texts of the articles were read to continue to refine the selection based on the inclusion and exclusion criteria established. As a result, 44 articles were retained for their later review and synthesis in the present article.

For the detection of duplicate documents and the bibliographic management of the studies reviewed, the *Mendeley* (Elsevier, 2019) software was used. Moreover, except when reading the complete texts during the last step in filtering the studies, the analysis of the publications consisted mainly of the reading and analysis of the titles and abstracts of the articles. When it was not possible to determine whether a study should be included based on this reading, the entire text was read.



**Figure 1.** Flux diagram followed to carry out the systematic review. Adapted from “Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement” by D. Moher, A. Liberati, J. Tetzlaff, D. Altman, & The PRISMA Group, 2009, *PLoS Medicine*, 6(6): e1000097.

## Results

The search strategy yielded a total of 44 final articles for review. The bibliographical information for these articles is highlighted with an asterisk in the references of the present article. The grouping of the articles corresponds to a conceptual-thematic similitude, establishing four categories: organizational ethics, cultural values and beliefs, perceived norms and morals, and personality and related variables.

### Organizational ethics

Organizations (companies, associations, other organisms) are not indifferent to the dynamics of the societies of which they form part. For example, Hechanova, Melgar, Falguera and Villaverde (2014) reached the conclusion that the leader’s role in an organization is crucial in the institutionalization of corruption. Mainly, the weight of the structures falls on the conduct of these leaders and their knowledge, or lack of it, about the corrupt practices in their own organization.

If these corrupt practices are forgiven, authorized, allowed, or rewarded, it is more likely that the members of the organization will continue in this direction. In this regard, it has been shown that higher levels of corruption are expected in organizations that are perceived as more hierarchical (Fath & Kay, 2018). These perceptions were mediated by beliefs about the degree of competitiveness among their employees. In other words, organizations perceived as more hierarchical were related to greater competitiveness among their employees, and, therefore, a greater tendency to commit corrupt actions was expected.

In her study on the influence of situational variables on corrupt behavior in organizations, Rabl (2011) highlights the importance of taking into account the interdependence of various factors in order to understand the corrupt behavior. This behavior would be the result of a complex relationship among psychological constructs such as emotions, cognitions, or volitions that would be influencing the decision-making process of individuals. In fact, some studies (Pelletier & Bligh, 2008) have shown that there is an amalgam of emo-

tional reactions to corruption in organizational settings, including cynicism, pessimism, paranoia, and fear. These same emotional reactions were generally directed toward top managers in organizations, dysfunctional organizational practices, and so-called “ethical interventions”. Moreover, it is important to consider rationalization strategies used as *a posteriori* justifications for corrupt behavior. The rationalizations are not mainly used to justify the consequences of a corrupt action; instead, they are used to point out the “good intentions” behind this dishonest act (Rabl & Kühlmann, 2009). Another aspect that has received empirical support is referred to as an “entrepreneurial orientation” in the literature. Although the results have been ambiguous, studies have shown that some components of this construct, such as the risk orientation, foster a greater increase in the tendency to participate in corrupt activities (Karmann, Mauer, Flatten, & Brettel, 2016). However, the so-called “innovation orientation” –another component of this construct– helps to reduce this tendency to commit corrupt acts.

### Cultural beliefs and values

Corrupt practices do not occur in a vacuum. Instead, they are embedded in a sociocultural context that conditions and defines them. There is a body of scientific literature on the influence of cultural beliefs and values on the tendency to participate in corrupt activities. Rotondi and Stanca (2015) found that particularism (the fundamental belief that the moral value of actions depends on the context) was related to a reduction in the psychological cost of committing a corrupt act and, consequently, a greater probability of offering and receiving a bribe. Likewise, some studies (Liang et al., 2016) showed that high levels of self-esteem were related to a lower level of materialistic values, which in turn would contribute to reducing the tendency to carry out corrupt behaviors. Moreover, some studies found that a bribe at the organizational level is perceived as a more intolerable behavior than a bribe at the individual level in Chinese culture, whereas the opposite is true in United States culture (Liu et al., 2017). Furthermore, the perception of being judged socially reduces the possibility of participating in corrupt practices only in individuals who identify culturally with countries with low levels of corruption (Salmon & Serra, 2017).

In relation to the ideological framework of each individual, it is necessary to highlight that different studies have shown a relationship between adhering to a meritocratic ideology (where a person’s success is mainly based on his/her aptitudes) and the conservation of existing hierarchical structures, which in turn would foster support for certain corrupt behaviors (Tan, Liu, Huang, & Zheng, 2017). Closely linked to this, members of the same research team showed that a greater orientation toward social dominance (preference for the maintenance of a dominant hierarchical order) was linked to less awareness of the phenomenon of corruption, although this relationship was mediated by the perception of having been treated unfairly (Tan, Liu, Huang, Zhao, &

Zheng, 2016). In a similar study, Tan, Liu, Zheng and Huang (2016) pointed out that right-wing authoritarianism (characterized by the perception of the world as an unsafe and threatening place and seeking to legitimize traditional norms and authorities) was also directly linked to a greater tendency toward corruption. Again, this relationship was mediated by the perception of having been treated unfairly.

Without a doubt, people’s vision of the world determines their emotions, thoughts, and affects. Bai, Liu, and Kou (2016) carried out a study to demonstrate that the belief in a just world promotes a reduction in the perception of corruption, which leads to a reduction in one’s intention to perform corrupt acts. Other studies (Tan, Liu, Huang, Zheng, & Liang, 2016) argued that the justification of the system in which one lives is linked to a lower perception of corruption. They also showed that confidence in the institutions mediated this relationship. This justification of the system has been defined as a motivation to consciously or unconsciously support social stability, even when one’s interests are being attacked.

Finally, Bendahan, Zehnder, Pralong, and Antonakis (2015) focused on the way power affected people by causing them to act in their own interest. In their study, they showed that the inoculation of power in some individuals made them more immune to the psychological costs when they violated social norms, and they were more likely to put their own benefit ahead of the common good. These results showed that even those individuals who had a disposition to be honest and an optimistic belief about the good behavior of the leaders of an organization succumbed to the effects of being in a situation of power. On the other hand, some authors (Wang & Sun, 2016) were able to show that the relationship between power and corruption is not as clear as it might seem. A conception of personalistic power (the belief that power serves to achieve personal goals) promoted corrupt practices and tolerance toward this phenomenon, whereas a socialized conception of power (the belief that power serves to reach collective goals) contributed to reducing the tendency to participate in corrupt activities and reduced their tolerance. Because talking about power also means talking about politicians, there are some studies, such as the one by Fischer, Ferreira, Milfont and Pilati (2014), that focus on variables related to perception that can influence individuals’ corrupt behavior. These authors found that the diffusion of images about politicians going unpunished in cases of corruption increased the possibility that people would behave in this way when the situation allowed it. In addition to perceiving these behaviors as beneficial, the people who participated in this study tended to elaborate cynical reasoning about the way the structures of the State function. They also had a lack of trust in the official institutions and less respect for the law, and they perceived that “anything goes” in these situations. Zalpa, Tapia, and Reyes (2014) found similar results when highlighting that, if the exchange of favors was perceived as a “social obligation” in society, the practice of performing corrupt acts was more likely to be accepted and

normalized. Balafoutas (2011) pointed out that the interactions between a government official and a *lobby* were highly influenced by the risk aversion of the former when defrauding the citizenry. However, if the citizens' expectations about the government official declined, it was much easier for the *lobby* to bribe him/her and create a breeding ground for future corrupt transactions.

### Perceived morals and norms

The perception of peers is also a fundamental factor to take into account when evaluating the tendency to participate in corrupt activities. If the environment is perceived as highly corrupt, the tendency to commit these same behaviors will skyrocket. This observation was confirmed by Dong, Dulleck and Torgler (2012) in their publication on "conditional corruption". Likewise, when paying a bribe, people seem to take into account the opportunity costs of their behavior, which are closely linked to their perception of the norms and institutions under which they live (Guerrero & Rodríguez-Oreggia, 2008). If there are low levels of respect for the law, the benefits from these corrupt behaviors will be greater. Other studies are even more categorical when they show that the most important variables in defining people's tendency to commit corrupt acts are social and personal norms and whether they perceive a specific opportunity to do so without experiencing negative consequences (Gorsira, Denkers, & Huisman, 2018). Therefore, the way the people around us think and behave, our own moral convictions, and the opportunity to be unharmed by the situation would explain a large part of the tendency to commit corrupt acts, and this has been shown in both civil servants and employees in the private sector. Banerjee (2016) also carried out studies to show that the perception of what is morally correct, or what has been called the "socially appropriate norm", was a crucial factor in explaining why individuals performed behaviors linked to corruption.

Moreover, the way corruption presents itself influences the way the potential offenders perceive it. For example, Barr and Serra (2009) designed an experiment in which they demonstrated that a situation presented as a corrupt act with negative consequences for an innocent victim produced a decline in the participants' inclination to offer bribes. In another series of studies, Köbis, Van Prooijen, Righetti, and Van Lange (2017) showed that people were more willing to participate in "severe" corrupt activities when they appeared abruptly rather than gradually, despite knowing that these behaviors were highly dishonest.

Dickel and Graeff (2018) showed that, along with the evaluation of future success in the transaction, the perceived high benefits and low costs were fundamental in the participants' decision to break the law and participate in corrupt acts. Unlike what one might think, the high probability of being discovered in a corrupt transaction did not change business owners' tendency to be corrupt. However, the more time they spent thinking about whether to participate in

these corrupt situations, the higher the perceived costs, which resulted in less activity in dishonest behaviors. In another study, López-López, Bocarejo, Peralta, Pineda, and Mullet (2017) stated that tolerance to corruption is mainly the result of the means used to obtain benefits, and that it does not depend on the person's status or the reasons for his/her behavior.

To end this section, it is interesting to highlight that a greater perception of the degree of uncertainty helps to reduce the occurrence of corrupt behaviors (Berninghaus et al., 2013). In this regard, the hypothesis was also tested that a person's beliefs about the possibility of being discovered in a suspicious transaction better explained his/her future intention of committing corrupt acts, even more so than the person's attitude toward risk. Related to this, Abbink and Wu (2017) reached the conclusion that encouraging recognition by the parties involved that they are performing corrupt behaviors was highly effective in the fight to eradicate bribery. This efficacy declined considerably if only one of the parties involved admitted committing the crime. To this we have to add the fact that the participation of intermediaries in corrupt transactions contributes to reducing the perceived moral costs and, therefore, increases the possibility that people will perform corrupt behaviors (Drugov, Hamman, & Serra, 2014).

### Personality and related variables

Can the perception of corruption affect a person's subjective wellbeing? Tay, Herian, and Diener (2014) carried out a study in which they concluded that people who perceived greater corruption around them tended to have lower levels of life satisfaction. Moreover, living in societies catalogued as corrupt harmed the life satisfaction levels of its inhabitants. However, the authors also nuance this by stating that western societies are especially susceptible to the negative effects of corruption, that economic factors such as the income level have a greater weight in the subjective wellbeing of more corrupt societies, and that the influence of corruption on wellbeing is indirect, as demonstrated by the lack of confidence the inhabitants of a country have in official institutions. In similar terms, Wu and Zhu (2016) discovered that the negative effects of having participated in corrupt activities on the person's happiness are moderated by his/her perception of the environment (whether the environment is perceived as corrupt or not). That is, the experience of having formed part of corruption reduced the life satisfaction levels only when the environment was perceived as having low levels of corruption. Complementarily, it has been observed that, when satisfaction with life was low, people who perceived a corrupt environment were also more likely to participate in politics (for example, by voting), but this relationship did not occur when satisfaction with life was high (Zheng, Liu, Huang, & Tan, 2017).

In spite of this, there are moral dilemmas that raise opposing situations and generate physiological responses in

people who are trying to make a decision. This idea was analyzed by Jaber-López, García-Gallego, Perakakis, and Georgantzis (2014) in a study showing that people who made decisions without following the maxim “seek the greatest economic benefit possible” had higher levels of *arousal* than those who made decisions that led to performing corrupt acts and increasing their economic benefits. A possible solution might be offered in the study by Aremu, Pakes and Johnston (2011), who demonstrated that improving the emotional intelligence of a group of police in Nigeria was related to a decline in the corruption levels in this corp.

There is also an incipient body of scientific literature that describes the relationship between sex and the tendency to commit corrupt behaviors. On the one hand, some studies (Żemojtel-Piotrowska, Marganski, Baran, & Piotrowski, 2017) show that women politicians were judged more harshly than men when they were caught participating in corruption scandals. This could be consistent with the study by Fišar, Kubák, Špalek and Tremewan (2016), who showed that women were less likely to offer bribes and less willing to punish corruption, although they also believed that corruption was more extended than men did. On the other hand, studies such as the one by Onifade and Bodunde (2009) highlight that men and women do not differ in their tendency to commit corrupt acts.

In addition, it is necessary to highlight the studies that have associated corruption with personality characteristics. First, Agbo and Iwundu (2016) pointed out that extraversion was directly related to the tendency to participate in corrupt activities, whereas traits such as meticulousness were indirectly related to this phenomenon. Regarding the participants' motivation, they showed that extrinsic motivation fostered corrupt behaviors, whereas the opposite occurred with higher levels of intrinsic motivation. Meanwhile, Zhao, Zhang and Xu (2016) revealed that the so-called “dark triad of personality” (narcissism, psychopathy, and Machiavellianism) was related to corrupt behaviors. Whereas narcissism, psychopathy, and Machiavellianism were all positively related to accepting bribes, only in the first two cases was this relationship mediated by the belief in good luck when avoiding punishment or negative consequences of their acts. In a similar study on personality characteristics, Vranka and Bahník (2018) showed that the probability of accepting a bribe was directly related to variables associated with honesty and humility, which implied that the act of accepting this type of corrupt practice involved ignoring the automatic response of honesty that is usually associated with a large part of the population.

Another study that analyzed the dynamics contributing to the appearance of corrupt behaviors was carried out by Abraham, Suleeman and Takwin (2018). These authors reached the conclusion that people who identified with personality characteristics they did not have –but acted as if they did–, along with characteristics such as “an ethical mentality” and their image of themselves, had the ability to separate their moral reasoning capacity from their acts, which made

them more likely to participate in corrupt activities. Lee and Guven (2013) also contributed to this line of research by showing that greater risk aversion was linked to less justification for paying kickbacks, that societies with a predominantly masculine view were more likely to play down the damage caused by corruption, and that past experiences with corruption would positively condition the way a person perceives and justifies this phenomenon.

## Discussion

The purpose of this study was to analyze the psychological variables associated with corruption through a systematic review of the publications between 2008 and 2018. Specifically, the intention was to identify the variables examined in relation to corrupt behavior and synthesize the main results of the studies.

First, the present review study makes a novel contribution to the study of the phenomenon of corruption because it synthesizes the main results obtained on the psychological antecedents of corrupt behaviors. Not only is there no review of this type in the literature on corruption, but, in addition, the existing studies in this field have mainly used a macro approach (Mocan, 2008) based on an economic view (Philp & Dávid-Barrett, 2015).

Second, it is necessary to highlight the individual psychological variables that determine corruption and emerge in the present study. Regarding organizational settings, the studies show that aspects such as the organizational structure, the leaders' behavior, and situational variables play a role in the proliferation (or not) of possible corrupt practices. In this regard, the emotional reactions of the employees, the strategies they use to justify corrupt behaviors, and their predisposition to risk also influence the configuration of an ethical organizational setting.

With regard to cultural beliefs and values, the results show that individualist, materialist, meritocratic, and authoritarian systems, as well as those characterized by social dominance, are closely linked to the tendency to participate in corrupt activities. However, it should be pointed out that not all societies view corrupt practices in the same way, either due to their conception of the opinion of other members of society or their expectations of public officials. It must be kept in mind that viewing the world as a fair place, justifying the dominant system, or being exposed to images of politicians involved in cases of corruption were also determinants in predicting participants' future corrupt behaviors. More ambiguous evidence was found for the classic power-corruption relationship. Whereas some studies pointed out that the inoculation of power increases corrupt behavior, others showed that the specific individual's conception of power is important.

Naturally, the perceived norms and moral costs are central factors in a person's intention to perform behaviors associated with corruption. Social norms have been found to play a role in this process, and the perception that people

around us behave dishonestly contributes to further increasing this behavior. This is related to the expectation of being discovered, the possible negative consequences for third parties, the way situations of corruption appear, the aversion to risk, the presence of intermediaries in corrupt transactions, the calculation of possible personal benefits, and even whether there are perceived rewards for denouncing these practices.

Finally, personality traits associated with corrupt behaviors also have to be addressed. Traits such as psychopathy, narcissism, Machiavellianism, extraversion, extrinsic motivation, and low levels of life satisfaction or self-esteem foster corruption. Regarding the sex of the participants, the results were ambiguous. Whereas some studies confirmed that women have a greater tendency to carry out corrupt behaviors, others found no differences between the sexes. In the case of the power-corruption relationship, something similar occurs. The results did not manage to establish a clear consensus about the conditions where power is accompanied by higher corruption levels.

One of the most significant conclusions emerging from the review of the articles is the scant production of scientific literature on corruption –from a psychological point of view– in Spain and Latin America. Only a few studies are exceptions to this dynamic (Guerrero & Rodríguez-Oreggia, 2008; Jaber-López et al., 2014; López-López et al., 2017; Zalpa et al., 2014), which is surprising given the population's perception of corruption levels in the institutional organisms of these countries (Transparency International, 2017). Another pattern found was related to the type of sample predominantly found in the reviewed articles: university students (see, for example, Abbink & Wu, 2017; Agbo & Iwundu, 2016; Bai et al., 2016; Fišar et al., 2016; Onifade & Bodunde, 2009; Tan et al., 2016). Although it is true that students are a population frequently selected for scientific studies, the reach of a phenomenon like corruption requires further comprehension of its mechanisms by using more representative samples from the general population, if this is where one wants to study the phenomenon. An example of the latter can be found in studies such as those by López-López et al. (2017) and Wang and Sun (2016), which collect the perceptions of adults with a heterogeneous profile. Regarding the methodology used in the articles included in this review, there is a clear predominance of experimental (see, for example, Drugov et al., 2014) and correlational (see, for example, Liang et al., 2016) designs, but few qualitative studies (see, for example, Gorsira et al., 2018). Although clearly differentiated lines coexist in the research on corruption, represented by experimental studies and correlational studies (Abbink & Serra, 2012), the study of the processes that lead a person to participate in corrupt activities is a pending topic that should be addressed complementarily through qualitative studies. Moreover, some studies already talk about studying corrupt behaviors from a specific contextual approach, searching for the specificities of each practice and developing *ad hoc* evaluation tools (Johnsøn & Mason, 2013).

After carrying out this review, it is possible to consider which questions have not been addressed and would be possible future lines of research in this field. There are many unresolved questions about aspects such as the perception of power, the sex of the individuals, and the mechanisms relating them to corruption, as well as personality variables and their interactions with these factors. In other words, the research could attempt to discover how different personality traits interact with people's inoculation of power, while also studying the role of sex. Moreover, it would be interesting to determine how the social norms are perceived by the participants during the decision-making process, and whether the situational variables and the format in which corruption presents itself help to distort these perceptions about others' behavior. Another line of research could be directed toward discovering the psychological processes underlying the participation in different corrupt behaviors depending on the context (hospitals, politics, universities, etc.).

It would also be interesting to discover the effects of these types of studies on implementing effective policies in the fight against corruption. A strong effort to reinforce the business ethic in all the areas and the strengthening of the anti-corruption laws are necessary measures, but not always sufficient. Detecting favorable environments for the proliferation of corrupt behaviors, providing education and awareness about the many formats in which this phenomenon appears, making an effort to implement protection and reward systems for those who denounce these practices, and even examining the treatment of cases of corruption by the communication media are only some of the most important recommendations that can be extracted from the reviewed articles. Despite this, it is important to remember that these are "corrupt behaviors" and not "corrupt people", which highlights the fact that sociocultural, economic, and situational variables can interact with psychological variables to create opportunities where any citizen might engage in these types of practices.

With regard to the study limitations, it should be mentioned that the search languages (Spanish and English) were an initial barrier to finding more literature on the topic in question. It was not possible to include studies written in other languages. Undoubtedly, one of the greatest limitations of this review was the inclusion of studies that had been published and annexed in the databases used. This means that there is a large body of "grey literature" that is not reflected in the present systematic review. Specifically, all the studies that, for whatever reason, have not been published may have contributed to a possible publication bias (only studies are published that obtained the results desired by the researchers and not those that have obtained results contrary to the proposed hypotheses) in the results and conclusions of the present study. Likewise, the great heterogeneity of the studies in terms of the evaluation methods used and the data analyses made it impossible to carry out a meta-analysis to complement this systematic review. The direct consequence is that it is difficult to make an objective comparison of the



results of the reviewed studies based on the statistical data offered, although this was not the objective of the present systematic review. Additionally, studies on corruption are characterized by using theoretical approaches from disciplines other than Psychology, which probably caused some empirical studies to be excluded from this review, even when similar methods were used.

Complementing these arguments for the importance of studying the variables associated with corruption, it is fun-

damental for both public and private institutions to have empirically tested information in order to implement programs to reduce the prevailing levels of corruption in society. In any case, it is still necessary—as mentioned above—to have more research on corruption from a psychological perspective, in order to obtain precise data to elaborate effective policies in the fight against this phenomenon, as this review was designed to demonstrate.

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