

Understanding Corruption Tolerance: Does Personality Matter?

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Abstract

Attitudes towards corruption have been attributed to a broad range of macro-level and, to a limited extent, micro-level antecedents. Neglected is academic research on the effect of individual-level psychological factors on the attitudes toward corruption. To fill this gap, this article aims to explore the impact of individuals' personality traits on their willingness to justify corrupt acts, drawing on data from World Values Survey Wave 6. By applying fixed effects models, the study finds that two of five personality traits – conscientiousness and agreeableness are significantly and negatively associated with individuals' willingness to justify corrupt exchanges. Additionally, the study results show that the association between the personality traits and corruption tolerance varies from country to country: openness to experience, for instance, was significantly and negatively associated with corruption tolerance in Germany, whereas this trend was not observed in the Dutch sample. Among the control variables, age and sex were significant predictors of corruption tolerance as well as the Dutch were less willing to justify corrupt acts than Germans. The study provides empirical and practical implications as well as suggestion for future research.

Key words: corruption permissiveness, personality traits, Europe, Big Five traits

Introduction

Nowadays, corruption is hardly a problem exclusive to a certain society or sphere: the fact that corruption exists everywhere – in developed and developing countries, in the private as well as the public sector – needs no confirmation. What is noteworthy, however, is that despite its immense adverse consequences as well as the demands for its prevention for maintaining good governance around the world, there still exist people who deem corruption justified. Citizens' corruption tolerance influences democracy and governance in the long run, undermining institutional mechanisms designed to fight corruption and enhance citizen distrust (Lavena, 2013).

Attitudes towards corruption have been attributed to a broad range of macro-level antecedents including institutional, political, economic, and socio-cultural factors (Rauch and Evans, 2000; Brunetti and Weder, 2003; Rose-Ackerman and Palifka, 2016). While the macro-level antecedents are considered to be important for explaining the variation in the people's attitudes toward corruption across countries or regions that have different anti-corruption institutions and cultures, such an approach may be insufficient to explain such variations among the individuals living in the same or similar societies. On the other hand, existing research on the individual characteristics in the context of corruption tolerance has been mainly predominated by the studies focusing on the role of socio-demographic characteristics such as gender, educational background, income (Berkeley, 2006; Torgler and Valev, 2010; Bauhr and Charron, 2020), personal views (Chang and Kerr, 2009), as well as values (Pande and Jain, 2014; Tatarko and Mironova, 2017; Tatarko *et al.*, 2020).

However, the macro- and micro-level antecedents mentioned above may also interact with psychological factors and lead to circumstances where any citizen can engage in or justify such practices (Julián and Bonavia, 2020). Studying corruption from a psychological point of view presents a promising – but relatively unexplored – approach, which may

enhance development policies by incorporating a more robust understanding of how individuals make decisions in their everyday lives. The theoretical and methodological toolkit of a psychological approach may also have unique contributions to significant questions related to corruption tolerance. It is against this backdrop that this research attempts to fill in the gap by going beyond the macro-level and micro-level antecedents of corruption tolerance traditionally emphasized in the academic literature and applying a relatively unstudied psychological perspective – examining to what extent individuals' personality traits affect their willingness to justify corrupt acts.

Contrary to the components of personality that develop and alter throughout the life cycle, dispositional traits – also referred to as Big Five traits – are considered to be enduring aspects of individuals that shape the way they react to the vast array of stimuli they encounter in the world (Gerber *et al.*, 2011). Due to their stable nature, they are deemed to be predated rather than being caused by political and social influences, creating an opportunity to explore how fundamental, stable personality variations affect numerous social outcomes, including attitudes (Gerber *et al.*, 2010). As argued by Gerber *et al.* (2011), just as socioeconomic status is linked to a wide array of forms of social and political engagement, political research on the Big Five traits – extraversion, conscientiousness, openness to experience, emotional stability and agreeableness – may assist the scholars in situating political judgments within the context of a broader theoretical account.

While the effect of personality traits on corruption has been, although to a limited extent, examined by the previous research, it appears that most of these studies have explicitly looked at instances of corrupt behavior of the bribe taker (Tatarko and Mironova, 2017). Undoubtedly, these aspects are essential to explore; however, the psychological characteristics of the 'other side of the coin', that is, of those who are willing to justify corrupt activities, have not been extensively researched in the academic literature. As such,

this paper explores the effect of personality traits on individuals' willingness to justify corrupt acts, with an aim to empirically contribute to this strand of literature for a more robust understanding of the phenomenon.

Research examining the determinants of attitudes toward corruption mainly strives to understand corrupt behavior based on attitudinal low-level corruption tolerance. Although attitudes can partly contribute to the explanation of behavior, they are considered to be different from the actual corrupt behavior (Ajzen, 1991). Thus, bearing in mind the differences between the behavioral and attitudinal perspectives present in corruption research, this study refrains from building its hypotheses based on the existing literature on corrupt behavior and focuses on the strand of literature that comprises studies from the field of ethics, examining individuals' justification of unethical actions such as malfeasance. While openness to experience, extraversion and neuroticism are expected to have a positive effect on the willingness to justify bribery, conscientiousness and openness to experience are expected to have a positive effect.

The study aims to hypothesize and examine the effect of Big Five personality traits on corruption permissiveness using data from World Values Survey Wave 6 (2010-2014). On the basis of the availability of reliable individual-level data for the independent variable, two countries – Germany and The Netherlands – were sorted and a sample size of 3351 respondents (1654 males, 1697 females) aged 17-95 ($M=51.95$, $SD=16.95$) was used. The fact that both countries have democratic institutions, values, and processes that are largely consolidated and continually scrutinized, makes them a relevant case study for exploring a broader picture of tolerance towards corruption since they are located in the region where the general condemnation of corruption in normative terms coexists with tolerance towards corruption in practical terms (Gouvêa Maciel, 2021). The fixed effects model is applied to

test the hypotheses with an aim to take account of unobservable country characteristics that may be potentially associated with the variables of interest.

The present study contributes to the existing literature in two distinct ways. First of all, it enriches the understanding of corruption with a detailed analysis of its determinants at the individual level by applying a psychological perspective and examining the role of personality in individuals' corruption tolerance. Study results indicate that conscientiousness and agreeableness are significantly and negatively associated with individuals' corruption tolerance. These results are robust to several alternative specifications, including those accounting for country fixed effects. Second, it provides evidence that despite the universal structure of the personality traits that are believed to be stable and homogenous across various cultures, context may play a moderating effect on the association between personality and corruption tolerance: while openness to experience has a significant and negative effect on corruption tolerance in Germany, this trend was not observed in the Dutch sample.

In the following sections, first, a brief review of the literature on corruption permissiveness and personality traits is presented. Subsequently, data and methods used to test the hypotheses are reviewed before elaborating on what the results imply for the effects of personality traits on corruption permissiveness.

Literature Review

Conceptual Framework

The term corruption tolerance – also known as corruption permissiveness or corruption acceptance – has been discussed in numerous studies and contexts in many different ways (for a review, see e.g. (Alvarez, 2015)). This section aims to clarify what exactly is meant by corruption tolerance – the object of this research. Before reflecting on the phenomenon of corruption tolerance, however, it is important to look into the definition of corruption. What exactly is corruption?

Many scholars recognize the fact that it is hard to agree on a universal one-line definition of corruption (Philp, 1997; Uslaner, 2008; Farrales, 2012; Gardiner, 2019). As argued by Uslaner (2008, p. 9), 'we have far less difficulty in agreeing on what behavior is corrupt than in drawing firm lines on what corruption means.' The most extensively cited typology of various definitions of corruption was developed by Heidenheimer (1978) who classified the definitions of the phenomenon into *public-interest-centered*, *public-office-centered*, or *market-centered*.

Regarding early definitions provided by the corruption scholars, the ones provided by McMullan (1961) and Bayley (1966) can be considered valid models of *public-office-centered* definitions. What distinguishes these definitions is that they describe corruption as a phenomenon that involves the misuse of public authority or office in exchange for private gain. Among the many definitions attributed to this category, perhaps the most popular is Nye's classic definition, where corruption is:

Behavior which deviates from the formal duties of a public role (elective or appointive) because of private-regarding (personal, close family, private clique) wealth or status gains; or violates rules against the exercise of certain types of private-regarding influence (Nye, 1967, p. 416).

Heidenheimer (1978) characterizes the second set of definitions as *market-centered*, which posit a rational actor following a particular thinking process in making a decision on how to act. As argued by Farrales (2012, p. 19), these definitions are 'less concerned with the general "what" of corruption as they are with the "how," "when", "why" and "to what degree".' Finally, in contrast to public-office and market-centered definitions, the *public-interest-centered* definitions of corruption focus on the fact that corruption gives privilege to private interests at the expense of the interests of the public.

Today, of the numerous definitions mentioned above, corruption scholars tend to define the phenomenon based on the public-office-centered form of definition (Jain, 2001, p. 13). The most common definition of corruption nowadays is a shortened variant of Nye's classic definition indicated above; namely it is defined as 'the misuse of public office for private gain' (Philp, 1997; Sandholtz and Koetzle, 2000; Treisman, 2000; Sandholtz and Gray, 2003; UN, 2004; Warf and Stewart, 2016; Gardiner, 2019).

Many of the contemporary studies of corruption proceed from a variant of the aforementioned narrow definition of corruption. However, based on the concept of the corruption tolerance as well as its operationalization utilized in this research, this study adopts a broader definition of the phenomenon developed by Michael Johnston (2005), who defines corruption as 'the abuse of public roles or resources for private benefit' (Johnston, 2005, p. 12). What distinguishes this definition from the previous one is the fact that it does not require an involvement of a public official in the malfeasance for it to be considered corruption. Thus, Johnston's (2005) version can be regarded as a broader definition of corruption that also includes the abuse of public resources for private gain. Applying this variant could, therefore, be more relevant for the studies that aim to cover different types of malfeasance that involve public resources such as taxes as well as public services.

What might also make defining corruption more difficult is the wide array of actions 'that fall under the rubric corruption' (Johnston, 2005, p. 42). To begin with, corruption can be classified into public and private corruption, where public corruption comprises the duty of public officials as its starting point, while private corruption covers malfeasance in the private sector without the involvement of a public sector official or authority (Rose-Ackerman and Palifka, 2016, p. 7). It should be noted that private corruption is outside the scope of this research since it usually does not involve public officials or resources.

Another important classification made in the corruption literature is that between *grand* and *petty* corruption – based on its monetary dimensions – and *political* and *bureaucratic* corruption – based on the nature of the actors involved (Alvarez, 2015). Grand corruption includes several but more influential actors and a large amount of money and other worthwhile benefits, whereas petty corruption concerns grass-root-level bureaucrats, ordinary citizens, and less amount of money and less worthwhile benefits (Rose-Ackerman and Palifka, 2016, p. 11).

Uslaner (2008, p. 132) distinguishes between two main types of corruption: high-level and low-level corruption. While corrupt dealings that involve senior political or administrative officials on the one hand and economic agents ‘engaged in a sizable activity outside of the scope of single interactions’ (Alvarez, 2015, p. 101) on the other hand are attributed to *high-level corruption*, *low-level corruption* is understood as a corrupt activity involving low-rank officials and regular citizens motivated, mostly, by economic incentives. Instead of emphasizing the characteristics such as a public office or the profit size, he makes this distinction based on the accessibility of corruption to regular citizens: the ordinary citizen can usually access relatively low-ranking government officials and petty public resources, and therefore, tends to engage in corrupt low-level actions (Alvarez, 2015).

In accordance with the distinction between high-level and low-level corruption, Pozsgai-Alvarez (2015) points out at the necessary differentiation between low-level and high-level corruption while thinking of citizens’ role in sustaining malfeasance. According to him, corrupt transactions follow a tripartite model where the presence of three different parties can be observed: a beneficiary (usually a public official), a benefactor (usually a private actor), and an affected party (society) (Alvarez, 2015). Accordingly, while participation of a public official is required in case of the traditional definition of corruption, citizens may either act as benefactors in cases of bribery and different kinds of petty

corruption or they may have a constant status of an affected party when it comes to political corruption.

Subsequently, based on the type of corruption and the definition of corruption tolerance, the previous literature on corruption tolerance can also be divided into two categories: (1) corruption tolerance as ‘citizens’ support for corrupt politicians’ and (2) corruption tolerance as ‘citizens’ willingness to engage in corruption’ (Alvarez, 2015, p. 102). The studies referring to the first category explore the reasons for citizens' support for corrupt politicians despite often realizing that these public actors may be involved in corrupt actions (Manzetti and Wilson, 2007; Chang and Kerr, 2009; Pani, 2011). The present study focuses on the second category of definitions – also regarded as corruption permissiveness (Catterberg, 2006; Lavena, 2013) – that embodies studies concentrating on low-level corruption tolerance. Following this logic as well as similar to the definition utilized by the previous research on corruption tolerance (Malmberg, 2018), the present study conceptualizes corruption tolerance as ‘the willingness to justify the abuse of public roles or resources in order to maximize private gains’ (Malmberg, 2018, p. 13).

How Important is Corruption Tolerance?

The concept of tolerance has been argued to be significant in capturing the very nature of corruption (Heidenheimer, 1978). It has an adverse effect on democracy and governance in the long run, leading to an extent when constant approval of malfeasance becomes normalized, undermining institutional mechanisms devised to fight corruption (Lavena, 2013, p. 346). While corrupt activities may include not only public officials but also citizens as benefactors or affected parties, the majority of the anticorruption policies – through punishment, monitoring or institutional reform – have been designed to control the former (Ashforth *et al.*, 2008). However, the level of corruption in particular societies may also depend on the decisions taken by citizens encountering corruption, especially in the case of

low-level corruption, where citizens' refusal to pay a bribe may bring an end to that specific instance of corruption (Alvarez, 2015).

It has been argued that in case of awareness of corruption instances, citizens can contribute to the improvement of the quality of democratic regimes by incorporating their views into the assessment of authorities and institutions (Lederman, Loayza and Soares, 2005; Lavena, 2013). The role of the citizen in fighting or embracing corruption has also been emphasized by Kurer, who states that 'what the public... thinks is corrupt is itself an important piece of information that is relevant, for example, in the design of anti-corruption programs' (Kurer, 2005, p. 225). Consequently, providing policymakers with further empirical data on various determinants that might help understanding why some individuals are more prone to tolerate/accept corruption is of great significance.

A wide array of potential contributions of the studies looking into the individual-level and country-level determinants of corruption tolerance have been mentioned in previous research. Such studies, for instance, may allow scholars to distinguish structural deficiencies in the institutions forming and influencing the values, attitudes, and behavior of individuals. This, subsequently, may enable policymakers to develop relevant reforms for such institutions that influence how citizens perceive corruption and their willingness to justify instances related to it.

What is more, as mentioned by Eric Chang and Nicholas Kerr (Chang and Kerr, 2009, p. 6), 'anti-corruption policies can be most successful if geared toward removing institutions that induce corruption tolerance.' The fact that individual attitudes can be helpful to predict de facto behavior in moral dilemmas also deserves to be emphasized while discussing potential contribution of research on corruption tolerance. In their study of 109 investigations into the relationship between attitudes and behavior, Icek Ajzen (1991, p. 181) comes to a conclusion that individuals' attitude has a consistently significant association with their

behavior when it is pointed at the same target and when it includes the same action. It has also been mentioned that so-called "rational-choice corruptors," meaning individuals willing to justify giving bribes, are more prone to encounter corruption, perhaps because of their greater readiness to engage in acts that facilitate exchanges with public officials (Bohn, 2013; Malmberg, 2018).

This is not, however, to claim that attitudes are the sole predictors of behavior; it is necessary to realize that attitude is among several elements that affect the way a person actually behaves. As argued by Malmberg (2018, p. 16), many other factors, including the bribe giver's willingness to take risks, the perceived likelihood that the official will take the bribe and does not report it, the size of the bribe giver's social stakes, and many other factors may play a role in when an individual engages in bribery. Consequently, positive attitudes towards malfeasance such as willingness to justify corrupt exchanges are not certainly always linked to actual deviance, which requires a more thorough analysis of these associations.

Individual-Level Determinants of Corruption Tolerance

As previously discussed, literature on corruption tolerance can be classified into two categories: (1) corruption tolerance as 'citizens' support for corrupt politicians' and (2) corruption tolerance as 'citizens' willingness to engage in corruption' (Alvarez, 2015, p. 102). The studies covered in the first category examine citizens' support for corrupt politicians in spite of being aware of the possibility of their involvement in corrupt actions (Manzetti and Wilson, 2007; Chang and Kerr, 2009; Pani, 2011). On the other hand, the second category of literature on corruption tolerance – also the focus of the present study – embodies studies that view corruption tolerance from the perspective of 'citizens' willingness to justify corrupt dealings, mainly bribes, while recognizing such actions as corrupt' (Alvarez, 2015, p. 102).

From a macro-level perspective, it is well-acknowledged that the factors such as effective laws or regulations on controlling corruption, efficient anticorruption organizations,

and intensive campaigns against corruption may play a role in shaping citizens' attitudes toward corruption and their behavioral preferences toward anticorruption (Rauch and Evans, 2000; Treisman, 2000; Brunetti and Weder, 2003; Rose-Ackerman and Palifka, 2016; Tu, Yang and Zheng, 2020). Exploring the macro-level antecedents of corruption tolerance are of great significance when it comes to explaining how people's attitudes toward corruption vary across countries with different anti-corruption institutions and cultures. However, such an approach may not be sufficient when it comes to research on explaining the variation in people's attitudes towards corruption within a particular society. Applying an individual-level approach, therefore, may contribute to the explanations of such variations.

Mocan (2008) argues that the small amount of research on the individual-level determinants of corruption was mainly due to the fact that data on corruption was predominantly available at the macro-level. With the availability of micro-level surveys that include questions on accepting or offering bribes and the justifiability and acceptability of different dishonest or illegal behaviors, however, a small number of studies have started using survey data to explore cross-country differences in corruption tolerance. It should be noted that among these studies, the effect of socio-demographic characteristics such as income, gender, or educational background on the individual-level perceptions of corruption tolerance have been examined more frequently.

Swamy et al. (2001) for instance, investigate the effect of gender on corruption based on World Values Surveys data for over 90,000 individuals in 49 countries, where they explore that women are less likely to tolerate corruption. What is more, Torgler and Valev (2010) examine if there is a systematic variation between attitudes towards corruption and tax evasion based on gender and, particularly, whether there is a decrease in gender differences when women and men face similar chances for deviant behavior. Their conclusions show a stronger aversion to corruption and tax evasion for women. Using World Values Survey and

European Values Survey data, Torgler and Valev (2006) also study the influence of age on corruption tolerance, observing a positive and significant impact of age; however, without cohort effect. Moreover, Dong and Torgler (2009) observe a higher level of political interest associated with lower corruption tolerance and a lower level of perceived corruption.

Similarly, Dong, Dulleck, and Torgler (2012), by using corruption justifiability from the World Values Survey and European Values Survey as their measure of corruption, analyze the effect of perceived activities of others on corruption tolerance.

Moreover, to assess citizens' attitudes toward receiving bribes, Blake (2009), Moreno (2002), Gatti, Paternostro, and Rigolini (2003), explore whether people are willing to justify those "accepting a bribe in the course of their duties" with a purpose to estimate the legitimacy of bribery as a socio-political instrument. Tavits (2010), in turn, examines the link between bribery justifiability and the act of offering a bribe using original survey data for Estonia. The study shows that both citizens and public officials are more likely to engage in corruption when they do not perceive corruption as wrong and observe that corrupt acts are extensive among their peers. Another study examines the phenomenon from the perspective of individual values to explore the variation of corruption tolerance among individuals finding that individuals high on masculinity or collectivism have a higher tolerance for corruption (Tu, Yang and Zheng, 2020).

However, in addition to the macro- and micro-level antecedents mentioned above the theoretical and methodological toolkit of a psychological approach may also have unique contributions to examining the determinants of corruption tolerance as these variables can interact with psychological factors and lead to circumstances where any citizen can engage in or justify such practices (Julián and Bonavia, 2020). Therefore, applying a psychological approach to examine the phenomenon presents a promising – but relatively unexplored – way to make both empirical and practical contributions to the field.

Introducing a Psychological Perspective: The Big Five Traits

The literature review on the psychology of corruption shows clear evidence that behavioral determinants can play a role in fuelling and preserving corrupt practices. Overall, notable behavioral impacts are linked with the predominance of mental models and narrow frames that bolster the idea that corruption is the normal state of affairs and that normalize expectations about inadequate provision and condition of public services (Julián and Bonavia, 2020). Such beliefs can have control over what societies collectively see as awaited and agreeable behaviors of citizens and public officials alike, often legitimizing an implicit tolerance – and even acceptance – of corrupt behaviors.

It should be noted that, to date, corruption scholars and practitioners working on the psychology of corruption have concentrated mainly on the social-psychological factors of unethical behaviour, such as the impact of group norms, interplays, and dynamics (Köbis *et al.*, 2015; Bicchieri and Ganegoda, 2017; Koni Hoffmann, Patel Candidate and Arkwright, 2017; Wouda *et al.*, 2017; Julián and Bonavia, 2020). Even though well justified, given the social, interactive nature of corruption, this approach overlooks the individual-level mental processes that affect decision-making to act unethically or to justify unethical behavior such as corruption.

Recent research on the role of core personality traits may contribute to the strand of literature covering psychological determinants of corruption by analyzing how individual-level differences in the core, stable psychological characteristics influence attitudes and behavior. One of the reasons for the growing scholarly interest in the role of personality traits in various political and social outcomes is the stability and replicability of this framework (Gerber *et al.*, 2010). It has been widely recognized that core personality traits may contribute to a more thorough understanding of fundamental differences among individuals in how they respond to various stimuli (Gerber *et al.*, 2011).

Over the past 20 years, the Big Five traits – also referred to as dispositional or core traits by psychologists – have been the dominant framework in measuring personality traits. What differentiates the Big Five personality traits from other aspects of human personalities, such as their self-concepts, characteristic adaptations, and objective biography, is that the latter develop and alter throughout the life cycle, while the former traits are considered to be stable, shaping the way individuals react to the broad range of stimuli (Gerber *et al.*, 2011). Consequently, the Big Five personality traits – namely, Extraversion, Conscientiousness, Agreeableness, Emotional Stability (sometimes referred to by its inverse—Neuroticism), and Openness to Experience are believed to influence behaviors and attitudes in a wide array of situations. A brief description of each of these traits – each of which will be more thoroughly explained in one of the following sub-sections – is presented in Table 1.

Table 1. Description of the Big Five traits (Rammstedt and John, 2007)

Trait	Definition
Extraversion	... energetic approach toward the social and material world.
Agreeableness	Contrasts a prosocial and communal orientation toward others with antagonism...
Conscientiousness	... socially prescribed impulse control that facilitates task- and goal-directed behavior...
Emotional stability	Contrasts...even-temperedness with negative emotionality...
Openness to experience	... the breadth, depth, originality, and complexity of an individuals' mental and experiential life.

Existing research on the association between personality and political attitudes as well as behavior has covered self-concepts and characteristic adaptations particularly important in the political arena, such as right-wing authoritarianism (Kinder and Sears, 1981; Sniderman and Carmines, 1997; Feldman and Huddy, 2005), racial resentment (Mayer and Altemeyer, 1998; Adorno *et al.*, 2015), and partisanship (Eulau *et al.*, 1960). However, despite its

potential to contribute to understanding various attitudes and behavior, the role of personality traits in corruption research is not sufficiently examined.

Although research on the relationship between corruption and the Big Five personality traits has been scarce, substantial studies have examined the effect of the Big Five personality traits on the constructs similar to corruption such as counterproductive work behaviors, a domain of behaviors containing corruption. Counterproductive work behavior is defined as ‘voluntary behaviour of organisational members that violates significant organisational norms, and in so doing, threatens the well-being of the organisation and/or its members’ (ROBINSON and BENNETT, 1995, p. 556). Meta-analyses conducted recently have associated counterproductive work behaviors with conscientiousness, agreeableness as well as integrity (Baehr, Jones and Nerad, 1993; Salgado, 2002). In another separate meta-analysis, Berry, Ones, and Sackett (2007) explored the relationship of the Big Five traits with organizational and interpersonal deviance, finding a strong relationship between agreeableness and conscientiousness and counterproductive work behavior.

Another strand of literature has examined the association between the Big Five personality traits and white-collar crime, an overlapping construct. White-collar crime can be defined as ‘deceit, concealment, or violation of trust... to obtain money, property, or services; to avoid the payment or loss of money; or to secure personal or business advantage’ (Perri, 2011, p. 220). Collins and Schmidt (1993), for instance, conducted a study examining the backgrounds and personality traits of white-collar crime offenders. The study results showed that while white-collar offenders had low integrity, low responsibility, low socialization, low tolerance and low responsibility, they had high scores on social extraversion and anxiety. Furthermore, Baehr, Jones, and Nerad (1993) found a positive relationship between emotional health and locus of control and business ethics measures. From the Big Five personality traits perspective, the above-mentioned studies related white-collar crime to low

emotional stability and low conscientiousness. Turner (2014) has also examined the relationship between the Big Five personality traits and individuals' propensity to engage in white-collar crime, finding a positive effect of lower levels of conscientiousness on the tendency to engage in white-collar crime.

What is more, as argued by Connelly and Ones (2008), another stream of individual-level research in the field of corruption has focused on whistle-blowers. The difference between white-collar crime and counterproductive work behaviors on the one hand and the whistle-blowing on the other hand is that while the former are considered to be individual-level behaviors increasing the levels of corruption, the latter – which is relatively closer to the research object of the present study – is a behavior that may contribute to anti-corruption efforts. According to Miceli, van Scotter, Near, and Rehg (2012), whistle-blowers are more likely to be low on negative affect, high on positive affect, and have proactive dispositions. Thus, within the five-factor framework, whistle-blowing is believed to have a positive relationship with extraversion, conscientiousness, and agreeableness, while the findings on the association between whistle-blowing and emotional stability is mixed (Judge *et al.*, 1998).

Based on the streams of research discussed above, a small number of studies have explored the relationship between the Big Five personality traits and corruption. Connelly and Ones, for instance, have examined the psychological antecedents related to corruption at the aggregate level exploring the association between national personality and Hofstede's cultural dimensions on the one hand and perceived national corruption on the other hand. The study showed that there was a positive relationship between the lower levels of openness to experience and higher levels of conscientiousness and corruption perception at the aggregate level. The positive association between conscientiousness and corruption in this study, however, contradicts the research that shows evidence for the negative effect of conscientiousness on criminal behaviors across various contexts. Nevertheless, by employing

the same measure of corruption, the Corruption Perception Index, Mottus, Allik, and Realo (2010) came to a contrary conclusion regarding the effect of conscientiousness on the national levels of corruption. The authors explained the inconsistent findings regarding conscientiousness by focusing on the role played national wealth.

At the individual level, Agbo and Iwundu (2015) explored possible personality determinants of the individuals' corruption tendencies. The results of the study revealed a negative effect of conscientiousness and a positive effect of extraversion on corruption tendencies. Furthermore, another study has focused on the role of personality traits on the corruption perception among civil servants, finding significant positive effect of extraversion, agreeableness and openness to experience and negative effect of emotional stability and conscientiousness on the civil servants' perception of corruption (A Fagbenro, 2019).

Big Five Personality Traits and Corruption Tolerance

What makes the present study different from the previous research on effects of the Big Five personality traits on corruption is that these studies have mainly focused on corrupt behaviors rather than attitudes by either explicitly exploring the instances of corrupt behavior of the bribe taker or focusing on corruption perception levels at the national level. Surely, exploring the determinants of corrupt behavior is essential; however, it is also important to study corruption from an attitudinal perspective, exploring the characteristics of the "other side of the coin" – of those willing to justify corrupt exchanges.

Most scholars regard low-level corruption tolerance as a set of attitudes and, therefore, attempt to measure it through surveys. Seemingly, one of the aims of these studies is to understand corrupt behavior based on attitudinal low-level corruption tolerance (Alvarez, 2015). However, as argued by Ajzen (1991), the belief that verbal responses (as in surveys) reflect individuals' attitudes while nonverbal actions reflect behavior should be discarded. Thus, it can be argued that verbal expressions are in themselves actions that are of

great significance for understanding corruption; however, these actions are clearly different from the actual corrupt behavior. As such, bearing in mind the differences between the behavioral and attitudinal perspectives employed in corruption research, this study refrains from building its hypotheses based on the existing literature on corrupt behavior and focuses on the strand of literature that comprises studies primarily from the field of ethics, examining individuals' justification of unethical actions such as malfeasance.

Conscientiousness

Conscientiousness, which represents characteristics such as being dependable, organized, and goal-oriented, has been related to honesty and a probability of being involved in prosocial activities, including volunteering for social benefit. In the workplace, people with high scores in conscientiousness have been seen to be less inclined to be involved in dishonest behaviors (McFerran, Aquino and Duffy, 2010). Two main facets have been related to this particular trait: achievement and dependability. While the achievement facet represents hard-working people, who meet requirements and expectations, the dependability facet concerns individuals who are careful, thorough, responsible, and organized (McCrae and Costa, 1987; Digman, 1990).

Moon (2001) argues that conscientious individuals are responsible not only for themselves but also for others. Likewise, another study found that people high in conscientiousness tend to prefer and take personal responsibility (Wiernik and Ones, 2018). Another study by Stewart (1996) found that conscientious individuals were more inclined to value achievement than economic gain. On the other hand, Roberts and Hogan (2002) have concluded that people with high conscientiousness were less inclined to be involved in dishonest activities. It is clear from these descriptions that those with high levels of conscientiousness would be less inclined to engage in or justify unethical behavior. Together with other findings on the propensity of conscientious individuals to procrastinate less, cheat

less, and be less prone to involve in deviant behavior (Moon, 2001; Wiernik and Ones, 2018), it can be argued that those with high levels of conscientiousness would be less inclined to engage in or justify corrupt acts:

Hypothesis 1: Conscientiousness will be negatively associated with individuals' willingness to justify corrupt acts

Openness to Experience

Individuals who have high scores in openness to experience tend to seek out new experiences and are likely to be very thoughtful and reflective towards the ideas they come up with. Such individuals are likely to be imaginative and intellectual who relish new explorations and discoveries. Individuals scoring high in this dimension are prone to be independent-minded and tolerant of more ambiguity. There is also evidence that openness to experience is positively related to sensation seeking and inversely linked to adapting to the values of others (Aluja, García and García, 2003; Giluk and Postlethwaite, 2015). According to McAdams (McAdams, 2010), individuals scoring high on openness to experience tend to have higher levels of moral reasoning.

Empirical evidence regarding openness and justifying unethical behaviors is mixed. Some studies (Payne, Youngcourt and Beaubien, 2007; Nguyen and Biderman, 2013), on the one hand, suggests that students scoring high in openness may be less inclined to cheat, while another study (Williams, Nathanson and Paulhus, 2010; Aslam and Mian, 2011; Giluk and Postlethwaite, 2015) reveals that individuals with high openness to experience are more likely to cheat. What is more, while Miller and Lynam (Miller and Lynam, 2001) found evidence on a negative relationship between openness to experience and antisocial behavior, Salgado (2002) concluded that this dimension was positively related to deviant behavior. However, taking into consideration the arguments that ethically suspect behavior is likely to be related to the violation of conformity values and produce sensory experiences (Aluja,

García and García, 2003), as well as bearing in mind the argument by Simha and Parboteeah (2020) that justification of ethically suspect behaviors inevitably includes acceptance of behaviors that are against social norms, the third hypothesis of the present study is formulated as follows:

Hypothesis 2: Openness to experience will be positively associated with individuals' willingness to justify corrupt acts.

Agreeableness

Agreeableness is the Big Five personality trait related to individuals' interpersonal relationships; being warm, friendly, and trusting, agreeable people tend to be concerned with the welfare of others (Goldberg, 1990). Not surprisingly, therefore, they are helpful, supportive, and cooperative. Concerning engaging in conflict, agreeable individuals tend to perceive less conflict and extract less conflict from the others (Graziano, Jensen-Campbell and Hair, 1996).

The present study argues that there will be an inverse relationship between agreeableness and individuals' willingness to justify corrupt acts. In addition to having pro-social facets noted above, this personality trait has also been related to loyalty, which may be connected with an unwillingness to justify any social harm or workplace indiscretions. People with high scores in agreeableness also tend to have a keener sense of justice, fairness, and reciprocity, which are connected with high levels of moral functioning (McFerran, Aquino and Duffy, 2010). What is more, agreeable people tend to be more straightforward which indicates that such individuals are likely to be sincere, honest, and truthful in their interactions with other individuals (Simha and Parboteeah, 2020). Based on the evidence presented above, the first hypothesis of the present study is formulated as follows:

Hypothesis 3: Agreeableness will be negatively associated with individuals' willingness to justify corrupt acts.

Several studies have indicated that the dimensions of extraversion and neuroticism have proved to have very weak empirical associations with ethical outcomes (Colquitt *et al.*, 2006; McFerran, Aquino and Duffy, 2010; Simha and Parboteeah, 2020). Therefore, the analysis of the association between these two traits dimensions and corruption tolerance will be explorative and the hypotheses will be formulated based on the small evidence that shows association between these two traits and academic dishonesty as well as similar unethical behaviors.

Extraversion

Extraverted people enjoy being socially active and are characterized as people with high energy, positive affect, assertiveness as well as outgoing nature. Extraversion is also considered to be related to excitement-seeking and high ambitions (Giluk and Postlethwaite, 2015). One of the facets of extraversion that may link it to cheating is excitement-seeking since individuals scoring high in excitement-seeking are more prone to take risks seeking out stimulating environments and thrills (de Bruin and Rudnick, 2007). De Bruin and Rudnick (2007) have, indeed, found that individuals with higher excitement-seeking have more tendencies to cheat. Extraversion is also proved to be associated with similar constructs such as academic dishonesty as well as sensation seeking (Eysenck, 1980; de Bruin and Rudnick, 2007). For instance, according to Aluja, García, and García (2003), extraversion is related to sensation-seeking behavior looking for intense environmental stimulations and taking risks to meet this need. Based on the excitement-seeking facet of extraversion as well as following the logic of the previous studies on the effect of extraversion on unethical outcomes, the final hypothesis of the study is formulated as follows:

Hypothesis 4: Extraversion will be positively associated with willingness to justify corrupt acts.

Neuroticism (sometimes referred to by its inverse *Emotional Stability*)

Individuals with higher levels of neuroticism tend to encounter negative emotional states such as guilt, insecurity, anxiety, and self-pity, with their moods being unstable and their behavior being impulsive. People low in emotional stability are more sensitive to psychological stress, as such individuals are likely to view everyday situations as dangerous and can undergo minor frustrations as impossibly devastating. People with low emotional stability also have difficulties coping with stress and have coping strategies such as withdrawal, denial, and wishful thinking. Campbell (1933), for instance, found that individuals with lower emotional stability were more inclined to cheat on exams, engaging in activities such as using a textbook during exams, using prepared notes, or exchanging answers to the exam questions with other students, while similar research conducted by Giluk and Postlethwaite (2015) has not revealed any significant effect of neuroticism on academic dishonesty. The present study formulates its fourth hypothesis based on the evidence presented by Campbell (1933), which is as follows:

Hypothesis 5: Neuroticism will be positively associated with individuals' willingness to justify corrupt acts.

Research Design

Database

The data for the present study is derived from the national probability samples collected by the World Values Study (WVS) Group, a global network of social scientists headquartered in Stockholm, Sweden. The sample was obtained from the 6th wave of the World Values Survey collected between the years 2010 and 2014. These surveys primarily aim at observing the changes in beliefs and values in people around the world. The collected data comprises nationally representative samples of at least 1000 individuals conducted in approximately 100 countries representing around 90 percent of the adult population

worldwide (Inglehart and Welzel, 2019). The samples are obtained using probability random methods, and the questions included in the surveys usually do not deviate far from the original official questionnaire.

Corruption Tolerance in the Context of Developed Countries

Corruption is considered to be a cross-cultural, cross-temporal, and cross-systematic phenomenon and therefore, it may exist in any country, under any form of government, and at any time (Farrales, 2012, p. 3). The argument that corruption may exist everywhere and at any time is relatively uncontroversial among the scholars in the field of corruption. Gardiner (1971, p. 93), for instance, considers corruption as a “persistent and practically ubiquitous aspect of political society.” Banfield (1975, pp. 587–605) argues that positions of authority and trust unavoidably lead to corrupt behavior due to the innately opportunistic nature of humans. Furthermore, while Fleck and Kuzmics state that all societies that have reached a particular level of complexity can encounter corruption as a phenomenon, Klitgaard considers corruption to be as old as organized human life and possibly as old as government itself (Farrales, 2012, p. 4).

Despite these arguments, however, research on corruption has traditionally viewed the phenomenon as an issue of developing societies: the lack of knowledge about corruption, as well as people's unreadiness to take an active role in preventing and fighting against corruption has been considered to be a problem of underdeveloped societies with weak institutions. However, evidence shows that this is far from being the case: countries with stable democratic rules and effective institutions also suffer from citizens' tolerance toward corruption (Gouvêa Maciel, 2021).

Although corruption is growing in developed countries over time, in comparison to developing economies, it is still lower. While it is widely acknowledged that the cleanest economies are those of the developed countries, it is also argued that some of the relatively

more developed countries also have relatively more levels of corruption (MaDonald and Tariq Majeed, 2011). The basic point is that development is not the only criterion for creating a corruption-free environment, although it has a significant role in this process (MaDonald and Tariq Majeed, 2011; Bosco, 2016; Mungiu-Pippidi *et al.*, 2019). This, in turn, raises a question as to why people in developed countries with strong economies and political structures still have positive attitudes toward corruption.

Sample

The following countries are used in the empirical analysis to investigate the research questions: Germany and The Netherlands. While the sixth wave of the World Values Survey comprises data for 60 countries, only 23 countries included the independent data, among which only Germany and The Netherlands can be defined as developed or WEIRD – Western, Educated, Industrialized, Rich, and Democratic. Furthermore, in addition to the contextual relevance of the two selected countries, previous research (Ludeke and Larsen, 2017) revealed that using the personality assessment data through the World Values Survey may be problematic for non-WEIRD context. As noted by Ludeke and Larsen (2017, p. 103), the assessment of personality traits outside of WEIRD contexts produce some challenges, such as lower levels of internal consistency reliability in responses in non-WEIRD samples. Therefore, selecting Germany and The Netherlands is also relevant for addressing the potential problems related to the personality assessment data through the World Values Survey.

For the purpose of this study, the respondents with missing values on any of the dependent, independent, or control variables were excluded from the analysis, resulting in the final analysis of 3351 respondents (1654 males, 1697 females) aged 17-95 (M=51.95, SD=16.95).

Dependent Variable

Before attempting to address the research question of the present study, first, it is necessary to discuss how the research object of the study, conceptualized and defined above, can be operationalized.

Two different strategies have primarily been used in the previous studies that have employed quantitative methods that tried to explain the determinants of corruption tolerance both within and across different societies (Malmberg, 2018, p. 73). The first strategy employs an index built by Alejandro Moreno (2002) while the second one uses a single survey item. Moreno's (2002) version of how to measure corruption tolerance is the creation of an index, which he calls an "*index of corruption permissiveness*," which is based upon four different questions asked in the World Value Survey (WVS). The questions from the WVS that build the backbone of the index are based on the respondents willingness to justify behaviors or acts included in the following four survey items:

1. "claiming government benefits to which you are not entitled",
2. "avoiding a fare on public transport",
3. "cheating on taxes if you have a chance" and
4. "accepting a bribe in the course of their duties",

on a scale from 1 to 10, where 1 implies that the corrupt practice is "Never justifiable" and 10 implies that it is "Always justifiable."

On the other hand, some researchers, for instance, Roberta Gatti, Stefano Paternostro, and James Rigolini (2003) have chosen a somewhat different approach for operationalizing corruption tolerance by using only one item – "someone accepting a bribe in the course of their duties" – as a proxy for the respondent's attitude toward corruption. Nevertheless, as claimed by some scholars (Williams and Martínez, 2014; Malmberg, 2018), there are some

advantages to employing a multi-item index of corruption tolerance instead of the single-item version.

Firstly, it may be challenging for a single-item question to sufficiently capture different inter-related aspects of corruption tolerance, and random errors may negatively influence it in measurement (Malmberg, 2018, p. 74). Secondly, greater reliability can be achieved as multi-item indexes tend to average out the errors (Williams and Martínez, 2014). Furthermore, a multi-item index is likely to produce superior score reliability as it pools together information that the separate items have in common (Williams and Martínez, 2014; Malmberg, 2018). Furthermore, some scholars (Johnston, 2005; Andersson, 2017) have argued against a unidimensional measurement of corruption (and, also, corruption tolerance) that focuses on bribery. In accordance with the abovementioned, this study uses Moreno's (2002) multi-item index of corruption permissiveness.

However, due to missing data for the item "Cheating on taxes if you have a chance" in the German sample, the present study uses a scale of corruption permissiveness that includes three items – namely, "claiming government benefits to which you are not entitled" (V198), "avoiding a fare on public transport" (V199), and "someone accepting a bribe in the course of their duties (V202)" – asking the respondents to what extent they find different deviant behaviors using a 10-point Likert scale from 1 (never justifiable) to 10 (always justifiable).

Independent Variables

The key independent variables of the present research are the *Big Five personality traits*, which are operationalized in accordance with Rammstedt and John (2007) by employing the ten-item short version of the Big Five Inventory (BFI). The five personality trait variables acquired from the BFI are *agreeableness*, *extraversion*, *emotional stability*, *conscientiousness*, and *openness to experience*. The BFI is excellent for estimating individual

dispositional characteristics in the survey since it is relatively short, making it less complicated for the respondents to answer the questions on their dispositional traits. Thanks to its practicability, the BFI-10 has been incorporated in the 6th wave of the World Values Survey. The personality measure is administered in a broad range of countries: Algeria, Colombia, Ecuador, Egypt, Germany, Iraq, Lebanon, Libya, the Netherlands, Pakistan, Palestine, Rwanda, South Africa, Thailand, Tunisia, and Yemen. However, for the purposes of this study and due to the methodological shortcomings already discussed above, this study uses samples from two of the abovementioned countries; Germany and The Netherlands.

To measure the Big Five personality traits, two 5-point Likert items for each personality trait were used. The respondents are asked to report how well ten items of traits – that correspond to the Big Five personality traits – included in BFI represent themselves. The ten questions included in the BFI are phrased similarly: ‘I see myself as someone who is ...’ based on a five-point scale showing the extent to which the respondents agree with each statement. While one means that the respondents completely disagree with the statement, five indicates that the respondents fully agree with the statement (Rammstedt and John, 2007).

The items for *openness to experience* include having “an active imagination” (V160J) and having “few artistic interest” (V160E, reversed coded, Cronbach $\alpha = 0.42$), while the items for *conscientiousness* comprised doing “a thorough job” (V160H) and tending “to be lazy” (V160C, reverse coded, Cronbach $\alpha = 0.40$). The items for *extraversion* included being “outgoing, sociable” (V160F) and being reserved (V160A, reversed coded, Cronbach $\alpha = 0.53$). The items for *agreeableness* included being “generally trusting” (V160B) and tending “to find fault with others” (reverse coded, Cronbach $\alpha = 0.17$). And finally, the items for *emotional stability* included being “relaxed” handling “stress well” (V160D) and getting “nervous easily” (V160I, reverse coded, Cronbach $\alpha = 0.59$). Two items are applied to estimate each personality trait, while the score for each personality trait is achieved by adding

the two pairs for each personality dimension after relevant recoding, where a higher score indicates that an individual has a prominent personality trait. Similar to previous research using the Rammstedt and John shortened scales (e.g., (Steffens *et al.*, 2016; Simha and Parboteeah, 2020)), in order to report the reliability of the figures for two-item scales, the present study found that the bivariate correlations for these scales ranged from 0.17 to 0.59.

Control Variables

To isolate the effect of personality traits on corruption tolerance, a set of control variables – namely, *age*, *sex*, *employment status*, as well as *income* – were included in the analysis to exclude possible alternative explanations for the individuals' willingness to justify bribery. The selection of the control variables has been based on similar research conducted previously (Gatti and Rigolini, 2003; Melgar and Rossi, 2012; Lavena, 2013; Tu, Yang and Zheng, 2020; Gouvêa Maciel, 2021).

Methodology

The association between the dependent and independent variables has been studied through bivariate and multivariate statistics by using STATA 15 software. Since the relationship between the variables is linear, a Pearson's correlation and multiple linear regression were run. In order to take into account unobservable country characteristics, potentially correlated with the variables of interest, and due to the fact that OLS in the case of the present study might be misleading, the present study decided to apply a fixed-effect regression to estimate the influence of the Big Five personality traits on corruption tolerance.

Due to poor internal consistency in the scales for the different personality traits as well as the scale of corruption permissiveness – with all Cronbach's below 0.70 – robustness checks were conducted to ensure that the results with the composite measures of the constructs of interest were reliable.

The analysis of the present study involves two analytical steps. In the first step, the effect of the Big Five personality traits in both countries is estimated using the fixed-effects model with dummy variables, which control for any country-specific variance. The second step, on the other hand, replicates the model separately for each country. In doing so, the intention is to uncover if and how the effect of Big Five personality traits on corruption permissiveness varies depending on context.

Results

Analysis of the Full Sample

To what extent do the Big Five personality traits affect individuals' willingness to justify corruption? To test the five hypotheses regarding the association between the personality traits and corruption permissiveness, Pearson bivariate correlations were initially calculated, which provided support for the Hypotheses 1 and 3, as conscientiousness ($r=-0.25$) and agreeableness ($r=-0.18$) were moderately and negatively related to the dependent variable. However, the pairwise correlations did not provide support for the Hypotheses 2, 4, and 5 since openness to experience ($r=-0.02$), extraversion ($r=0.03$), and emotional stability ($r=-0.07$) did not have significant correlation with corruption tolerance (Table 1).

Table 1. Pearson bivariate correlations

	1	2	3	4	5	6	7	8
1. Corruption permissiveness	1							
2. Openness	-0.03	1						
3. Conscientiousness	-0.025	0.03	1					
4. Agreeableness	-0.18	0.01	0.15	1				
5. Extraversion	0.03	0.2	0.07	-0.16	1			
6. Emotional stability	-0.07	0.03	0.1	0.14	0.12	1		
7. Age	-0.23	-0.04	0.16	0.13	-0.12	0.07	1	

8. Income	-0.04	0.05	0.04	0	0.09	0.14	-0.03	1
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The five hypotheses regarding the association between the personality traits and corruption permissiveness were also tested through multiple linear regression model, which has advantage over pairwise correlations for simultaneously accounting for the association between different predictor variables and an outcome variable. A control regression model with age, sex, income, employment status, and country as predictors of corruption permissiveness was produced to examine the relationships between the control variables and the dependent variable. The Adjusted R² of this model was 0.07, indicating that the control variables accounted for 7% of the variance of corruption tolerance.

A second regression model with the personality traits in addition to the control variable was later produced to investigate the relationship between the personality traits, the control variables, and corruption tolerance. The Adjusted R² of this personality model was 0.12, indicating that 12% of the variance was accounted by the combination of the control and the personality variables (Table 2). Therefore, the model fit of the personality model was better than the model fit of the control model, showing that the personality traits improved the prediction of corruption permissiveness over the control variables.

Table 2. Multivariate linear regression results

Variables	Control Model <i>b(SE)</i>	Personality Model <i>b(SE)</i>
Country(Netherlands)	-0.11 (0.04)**	-0.09 (0.03)**
Age	-0.01 (0.00) ***	-0.01 (0.00)***
Sex(Female)	-0.17 (0.03) ***	-0.12 (0.4)***
Employment(Part-time)	-0.08 (0.06)	-0.06 (0.6)
Employment(Self-employed)	0.19 (0.11)	0.16 (0.11)
Employment(Retired)	-0.04 (0.06)	-0.07 (0.06)
Employment(Housewife)	-0.07 (0.09)	-0.09 (0.09)
Employment(Student)	0.14 (0.10)	0.1 (0.01)

Employment(Unemployed)	-.14 (0.08)	0.12 (0.08)
Employment(Other)	-0.07 (0.10)	-0.07 (0.1)
Income	-0.03 (0.01) **	-0.02 (0.01)
Openness		-0.03 (0.02)*
Conscientiousness		0.23 (0.02)***
Extraversion		0.01 (0.2)
Agreeableness		-0.18 (0.02)***
Emotional Stability		-0.03 (0.02)
Intercept	2.63 (0.09)***	4.13 (0.16)
Adjusted R²	0.07	0.12

*p < 0.05, ** p < 0.01, *** p < 0.001

As shown in Table 2, only two personality traits, conscientiousness and agreeableness, were significant predictors of corruption permissiveness. Conscientiousness was a significant negative predictor of corruption tolerance ($b=-23$, $SE=0.02$, $p<0.001$), which supports Hypothesis 1 that people scoring high in this trait are less willing to justify corrupt acts, while agreeableness was negatively associated with corruption tolerance ($b=-0.17$, $SE=0.02$, $p<0.001$), supporting Hypothesis 3, which implied that agreeable people would be less willing to justify corrupt acts.

Contrary to Hypothesis 2, which predicted a positive association between openness to experience and corruption permissiveness, the former was negatively and significantly associated with corruption permissiveness ($b=-0.03$, $SE=0.02$, $p=0.03$). However, the coefficient for openness was -0.03 , showing smaller association with corruption tolerance in comparison to conscientiousness and agreeableness, which had coefficients of -23 and -17 , respectively.

Extraversion ($b=0.01$, $SE=0.02$, $p=0.47$) and emotional stability ($b=-0.03$, $SE=0.02$, $p=0.14$), however, did not significantly predict corruption permissiveness, rejecting the Hypotheses 4 and 5, which predicted a positive association between extraversion and neuroticism, respectively, and corruption permissiveness.

Among the control variables, sex was a significant predictor of corruption permissiveness, with females being less tolerant of corruption than males ($b=-0.12$, $SE=0.04$, $p=0.002$). Country was also a significant predictor of the dependent variable, as people from the Netherlands had higher levels of corruption tolerance than people from Germany ($b=-0.09$, $SE=0.03$, $p=0.01$). Finally, age was significantly and negatively related to corruption permissiveness ($b=-0.01$, $SE=0.03$, $p=0.002$), although this effect of age was moderate.

Robustness Checks

To provide further credibility to the findings, additional analyses were conducted to ensure the robustness of the results: three additional regression models were conducted to predict each of the items of the corruption permissiveness scale (Mocan, 2008) instead of the composite average. The Model 1 predicted the permissiveness towards “Claiming government benefits to which you are not entitled”. The Model 2 predicted the permissiveness towards “Avoiding a fare on public transport”. And the Model 3 predicted the permissiveness towards “Someone accepting a bribe in the course of their duties.”

Furthermore, the reverse coded items of the short version of the Big Factory Inventory used in the Word Values Survey have been considered problematic by some researchers (Ludeke and Larsen, 2017; Chapman and Elliot, 2019). In order to address the potential problems related to the BFI-10 reverse coded items and guarantee that the findings of the study are not adversely affected by potential reverse-coding artifactual effects, in line with previous research (Simha and Parboteeah, 2020) a single-item scale is used by only applying the positively worded items for the five personality traits. It should be noted that there is past precedence in the literature using single-item scales for various constructs such as the Big Five traits, satisfaction, and self-esteem (Abdel-Khalek, 2006; Denissen *et al.*, 2008; Simha and Parboteeah, 2020).

Table 3 shows these three additional regression models. Model 1, which predicts the permissiveness towards “Claiming government benefits to which you are not entitled”, shows similar patterns as the model using the composite measures. Both agreeableness ($b=-0.18$, $SE=0.02$, $p<0.001$) and conscientiousness ($b=-0.15$, $SE=0.03$, $p < 0.001$) are the only significant predictors of the item measuring corruption tolerance. Again, there is a negative relationship between both agreeableness and conscientiousness, and corruption permissiveness, which support hypotheses 1 and 3.

Table 3. Additional regression models for robustness checks

	Model 1	Model 2	Model 3
Variables	b(SE)	b(SE)	b(SE)
Country(Netherlands)	-0.44 (0.05)***	0.17 (0.05)**	-0.17 (0.04)***
Age	-0.01 (0.00)***	-0.01 (0.00)***	-0.01(0.00)***
Sex(Female)	-0.16 (0.05)	-0.03(0.05)	-0.21(0.04)***
Employment(Part-time)	-0.02 (0.08)	-0.08(0.09)	-0.12(0.07)
Employment(Self-employed)	0.033 (0.15)	0.21(0.15)	0.15(0.13)
Employment(Retired)	-0.01 (0.08)	-0.24(0.09)**	0.06(0.07)
Employment(Housewife)	0.09 (0.12)	-0.26(0.13)*	-0.08(0.11)
Employment(Student)	0.05 (0.14)	0.33(0.15)	-0.02(0.12)
Employment(Unemployed)	0.28 (0.11)	-0.01(0.12)	0.08(0.10)
Employment(Other)	0.04 (0.14)	-0.29(0.14)	-0.05(0.13)
Income	-0.04 (0.01) **	-0.00(0.01)	-0.01(0.01)
Openess	-0.02 (0.02)	0.04(0.02)	-0.03(0.02)
Conscientiousness	-0.15 (0.03)***	-0.22(0.02)***	-0.16(0.02)***
Extraversion	0.03 (0.02)	0.01(0.02)	-0.02(0.02)
Agreeableness	-0.18 (0.02)***	-0.12(0.03)***	-0.07(0.03)**
Emotional Stability	-0.00 (0.2)	-0.02(0.02)	-0.03(0.02)
Intercept	3.90 (0.20)***	3.98(0.21)	3.52 (0.19)***
Adjusted R²	0.07	0.09	0.05

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Step 2. Comparison between Germany and the Netherlands

To check for the possibility that the results are driven for one of the two countries included in the study, the initial regression models with the composite variables were produced again for each country separately (Table 4).

Table 4. Comparison between Germany and The Netherlands

	Germany	Netherlands
Variables	b(SE)	b(SE)
Age	-0.01 (0.00)***	-0.01 (0.00)***
Sex(Female)	0.09 (0.02)	-0.12 (0.05)*
Employment(Part-time)	0.00 (0.04)	-0.05 (0.08)
Employment(Self-employed)	-0.04 (0.04)	0.27 (0.17)
Employment(Retired)	0.14 (0.05)	-0.03 (0.08)
Employment(Housewife)	-0.29 (0.04)	-0.09 (0.11)
Employment(Student)	-0.03 (0.04)	-0.26 (0.19)
Employment(Unemployed)	0.49 (0.04)	0.17 (0.12)
Employment(Other)	-0.39 (0.09)	-0.02 (0.11)
Income	0.00 (0.00)	-0.03 (0.01)**
Openess	-0.15 (0.01)*	-0.00 (0.02)
Conscientiousness	-0.31 (0.01)***	-0.16 (0.03)***
Extraversion	0.09 (0.01)	0.01 (0.02)
Agreeableness	-0.10 (0.01)***	-0.11 (0.03)***
Emotional Stability	-0.04 (0.01)*	0.01 (0.03)
Intercept	4.63 (0.08)***	3.42 (0.21)***
Adjusted R²	0.14	0.08

*p < 0.05, ** p < 0.01, *** p < 0.001

Corruption Permissiveness in Germany

Similar to the analysis for the full sample, conscientiousness (b=-0.30, SE = 0.01, p < 0.001), agreeableness (b= -0.10, SE = 0.01, p < 0.001), and openness to experience (b=-0.15, SE = 0.01, p < 0.001) were significant negative predictors of corruption permissiveness in the German sample. This supports Hypotheses 1 and 3, while rejecting the Hypothesis 2, expecting a positive association between openness to experience and corruption tolerance.

However, in contrast to the analysis for the full sample, Hypotheses 4 and 5 were also supported in the German sample. Both extraversion ($b=0.09$, $SE=0.01$, $p<0.001$) and emotional stability ($b=-0.04$, $SE=0.01$, $p=0.004$) were significant positive predictors of corruption tolerance. However, the smaller coefficients for these personality traits show that the association between corruption tolerance and the extraversion and emotional stability was weaker than the association for agreeableness, conscientiousness, and openness to experience. Although these patterns for Germany contrast with the previous analyses, the robustness checks find negative significant associations for only agreeableness, conscientiousness, and openness to experience while tested separately on the different items of corruption permissiveness (Table 5), confirming that the results for the German sample are similar to the results for the full sample.

Table 5. Additional Regression Models for the German Sample

	Model 1	Model 2	Model 3
Variables	b(SE)	b(SE)	b(SE)
Age	-0.01 (0.00)***	-0.01 (0.00)***	-0.01(0.00)***
Sex(Female)	-0.16 (0.08)*	-0.06(0.07)	-0.15(0.07)*
Employment(Part-time)	-0.12 (0.13)	0.01(0.12)	-0.17(0.11)
Employment(Self-employed)	-0.07(0.20)	0.10(0.19)	0.14(0.17)
Employment(Retired)	-0.10(0.12)	0.14(0.12)	0.03(0.11)
Employment(Housewife)	0.14(0.19)	-0.14(0.18)	-0.21(0.16)
Employment(Student)	0.06(0.18)	0.55(0.17)	0.09(0.16)
Employment(Unemployed)	0.17(0.16)	-0.07(0.15)	-0.19(0.14)
Employment(Other)	-0.19(0.27)	-0.29(0.26)	-0.16(0.23)
Income	-0.03 (0.02)	-0.01(0.02)	-0.00(0.02)
Openess	-0.02(0.03)	0.06(0.03)*	-0.03(0.02)*
Conscientiousness	-0.20 (0.04)***	-0.23(0.4)***	-0.19(0.03)***
Extraversion	0.05(0.03)	-0.00(0.03)	-0.03(0.03)
Agreeableness	-0.24(0.05)***	-0.19(0.04)***	-0.12(0.04)***
Emotional Stability	0.01(0.04)	-0.02(0.03)	-0.05(0.03)
Intercept	4.33	4.21(0.29)***	3.83 (0.26)
Adjusted R²	0.07	0.09	0.05

*p < 0.05, ** p < 0.01, *** p < 0.001

Corruption Permissiveness in the Netherlands

Similar to the results for the full data, conscientiousness (b=-0.16, SE=0.03, p<0.001) and agreeableness (b=-0.11, SE=0.03, p=0.001) were significant predictors of corruption permissiveness in the sample from the Netherlands (Table 4), supporting Hypotheses 1 and 3. Nevertheless, none of the other personality traits were significant predictors of corruption permissiveness in this sample.

Table 6. Additional Regression Models for the Dutch Sample

	Model 1	Model 2	Model 3
Variables	b(SE)	b(SE)	b(SE)
Age	-0.10 (0.00)**	-0.02(0.00)***	-0.01(0.03)***
Sex(Female)	-0.12(0.07)	0.02(0.08)	-0.29(0.07)***
Employment(Part-time)	0.08(0.10)	-0.21(0.13)	-0.08(0.10)
Employment(Self-employed)	0.15(0.22)	0.45(0.28)	0.16(0.22)
Employment(Retired)	0.12(0.11)	-0.34(0.14)	0.15(0.11)
Employment(Housewife)	0.04(0.15)	-0.39(0.18)	0.08(0.14)
Employment(Student)	-0.09(0.24)	-0.33(0.30)	-0.30(0.24)
Employment(Unemployed)	0.48(0.15)	0.07(0.20)	-0.07(0.16)
Employment(Other)	0.19(0.14)	-0.33(0.18)	0.03(0.15)
Income	-0.05(0.01)	0.00(0.02)	-0.03(0.01)
Openness	-0.05(0.01)	0.02(0.03)	-0.02(0.03)
Conscientiousness	-0.07(0.03)*	-0.21(0.04)***	-0.12(0.03)***
Extraversion	-0.01(0.03)	0.02(0.03)	-0.00(0.02)
Agreeableness	-0.11(0.03)**	-0.05(0.04)	-0.02(0.03)
Emotional Stability	-0.01 (0.03)	-0.02(0.04)	-0.00(9.93)
Intercept	2.88(0.27)***	3.98(0.33)***	3.09(0.28)***
Adjusted R²	0.03	0.08	0.04

*p < 0.05, ** p < 0.01, *** p < 0.001

Robustness checks also showed that only two of the personality traits, agreeableness (Model 1: b=-0.11, SE=0.03, p<0.01) and conscientiousness (Model 1: b=-0.07, SE=0.03,

$p < 0.05$) significantly predicted the permissiveness towards “Claiming government benefits to which you are not entitled”, while only conscientiousness significantly predicted both permissiveness towards “Avoiding a fare on public transport” (Model 2: $b = -0.21$, $SE = 0.04$, $p < .001$) and towards “Someone accepting a bribe in the course of their duties” (Model 3: $b = -0.12$, $SE = 0.03$, $p < 0.001$). Thus, the association between agreeableness and corruption tolerance seem to be less robust in The Netherlands than in Germany. The remaining personality traits were not significantly associated with any of the measures of corruption tolerance (Table 6).

Discussion

The present study provides empirical contribution to the literature on corruption tolerance by examining the relationship between the Big Five personality traits and corruption tolerance. Overall, results show that, of the Big Five factors, conscientiousness and agreeableness have significant negative association with corruption tolerance. Contrary to the expectations of the study, openness to experience has a significant and negative effect on corruption tolerance in Germany, while this association does not hold significant effects in the Dutch sample. Moreover, in line with the previous research, the results do not find significant relationship between corruption tolerance and extraversion as well as emotional stability.

Among the control variables, one of the significant predictors of corruption tolerance is sex, with females being less tolerant toward corruption than males, while the results have also found significant and negative effect – although relatively small – of age on corruption tolerance. Another outcome of the study has been the variation between the two countries, Germany and The Netherlands, since people from The Netherlands tolerate corruption less than people from Germany.

Regarding the conscientiousness and agreeableness having a negative effect on individuals' willingness to justify corrupt acts, the findings of this research echo the plethora of research that has found negative relationship between these trait dimensions and constructs related to justification of deviant or unethical behavior (Berry, Ones and Sackett, 2007; McFerran, Aquino and Duffy, 2010; Maxwell, 2011; Simha and Parboteeah, 2020). The results are also in line with the way some scholars label those scoring high in both conscientiousness and agreeableness as people possessing "trait morality" (Goldberg, 1990; Colquitt *et al.*, 2006; McFerran, Aquino and Duffy, 2010, p. 39).

Contrary to the contention of the present study that openness to experience would be positively related to corruption tolerance, the results revealed that individuals scoring high in openness to experience are less willing to justify corrupt acts. Therefore, the adventurous nature of people high in openness to experience does not necessarily imply their inclination towards unethical or risky activities. What is more, the literature on the relationship between openness to experience and unethical behavior has also been – similar to the literature on corruption – was predominantly based on the behavioral part of the unethical behavior. Although previous studies have consistently shown a positive effect of this trait dimension on individuals' attitudes towards unethical outcomes, the theoretical explanations presented by these studies have also focused on the propensity of these individuals to be involved in unethical activities rather than their attitude towards others who engage in such actions.

As for the lack of support for the hypotheses on the effect of extraversion and emotional stability, from the perspective of the field of ethics, existing research has indicated that the dimensions of extraversion and neuroticism have proved to have very weak empirical associations with ethical outcomes. Although the results of the present study are in line with this strand of academic studies, they do not follow the same line with the studies that have examined the role of personality in corrupt behaviour (Baehr, Jones and Nerad, 1993; Judge

et al., 1998; Connelly and Ones, 2008). This lack of association between these two dimensions and corruption tolerance also indicates that in accordance with the argument developed by Ajzen (1991), although attitudes can be to some extent associated with behaviour, they may as well be different from the actual corrupt behavior.

The results also provide support for the assertion that context can have an influential role as a moderator in shaping the relationship between the Big Five personality traits and corruption tolerance. First of all, the level of corruption tolerance among the individuals in the full sample varies between the two countries, with people in The Netherlands being less tolerant of corrupt acts than those in Germany. More interestingly, although the Big Five personality traits are considered to be able to describe personality structure well across a wide variety of cultures, while people scoring high in openness to experience were less willing to justify corrupt acts in Germany, no such significant relationship has been observed in the Dutch sample. Although the two countries are in close geographic proximity to each other and have relatively similar cultural and/or political traits and despite the universal structure of the five factor model (McCrae and Costa, 1987), this variance points out to the role played by contextual factors when it comes to the relationship between the Big Five personality traits and social outcomes. In addition to the macro- and micro- level variables traditionally associated with corruption tolerance already discussed in this paper, research has also emphasized on less studied factors such as the significant role of race in the relationship between personality traits and political stimuli; variation in the meanings of a given stimulus across contexts as well as genetic and biological factors (Gerber *et al.*, 2011).

From an empirical perspective, the findings discussed in this study show that the Big Five traits predict attitudes towards corruption, which can improve the explanatory power of the model exploring the phenomenon. Such findings expand previous research that has considered, for instance, using data only at the aggregate level, studies with smaller samples

or single-country data, studies mainly focusing mainly on the developing countries, as well as research that focuses only on corrupt behavior and neglects its attitudinal aspect.

Additionally, contrary to the research indicating the universal structure as well as dispositional character of the Big Five personality traits which are expected to have same predictive significance across different cultures, the study shows that although such a trend is observable in cross-country research, the association between the personality traits may be significant among the individuals in one country and insignificant in others.

Limitations and Further Research

One of the limitations of this study is related to the dataset used to test the hypotheses. As the Big Five personality questionnaire was not distributed to all the respondents involved in the study and due to the fact that only two countries – Germany and The Netherlands – can be regarded as Western, Educated, Industrialized, Rich and Democratic, the sample size of the dataset was considerably reduced. Undoubtedly, it would have been more comprehensive if there was an opportunity to analyze the entire data set. Another limitation of the dataset is related to the reliability metrics of data procured from the World Values Survey that has proved to be problematic, mainly in the non-WEIRD context. What is more, although the original corruption tolerance scale consists of four items derived from the World Values Survey, due to the fact that one of the item questions was absent in the German sample, the present study included only three items in the scale, which also can be considered a limitation. Finally, it should be noted that both the independent and dependent variables are not free from biases, as in general the proxy is usually criticized due to the fact that it considers a *self-reported* and *hypothetical* choice (Simha and Parboteeah, 2020).

Future research, therefore, should be conducted with an increased sample size as well as stronger and more reliable measurements. Moreover, another suggestion for the future research would be testing the moderating effect of cultural values or dimensions as well as

other factors that may explain the between-country variations. Furthermore, the results are not completely robust throughout the analysis – especially the low reliability of agreeableness in the Dutch sample should be noted – and therefore, it needs further examination.

Additionally, longitudinal studies examining the relationship between personality and corruption tolerance would help further refine the overall understanding of these findings and lead to more counter-intuitive and interesting results. What is more, the surprising finding for the openness to experience dimension of the Big Five traits requires further research on the factors that may have a role in such a between-country variation.

Conclusion

Although the role of the Big Five personality traits has been, to a limited extent, examined in the field of corruption, most of these studies have explicitly looked at the instances of corrupt behavior of the bribe taker. Against this backdrop, the present study aimed at examining the effect of personality traits on individuals' corruption tolerance, focusing on the "other side of the coin." Overall, the results in the full sample show a significant negative effect of conscientiousness and agreeableness on individuals' willingness to justify corrupt acts. An analysis of the association between the dependent and independent variables in each country also supports the significant and negative effect of these two traits on the dependent variable. Additionally, one of the trait dimensions – openness to experience – has been negatively and significantly related to corruption tolerance in the German sample, while no such association is observed in the Dutch sample, which requires further illumination. The lack of effect of extraversion and emotional stability on corruption tolerance on the other hand show that the findings on corrupt behavior do not necessarily collude with the findings on the attitudinal aspect of corruption. All in all, there is a need for the empirical enrichment of the theories of corrupt attitudes at the individual level as the

explanatory power of the within- and between-country variation in the attitudes towards corruption is still not fully explored.

Reference List

- A Fagbenro, D. (2019) "Personality Traits and Attitude toward Corruption among Government Workers," *Psychology and Behavioral Science International Journal*, 11(1). doi: 10.19080/pbsij.2019.11.555801.
- Abdel-Khalek, A. M. (2006) "Measuring happiness with a single-item scale," *Social Behavior and Personality*. doi: 10.2224/sbp.2006.34.2.139.
- Adorno, T. W. *et al.* (2015) "The Authoritarian Personality," in *Racism: Essential Readings*. doi: 10.4135/9781446220986.n8.
- Agbo, A. A. and Iwundu, E. I. (2015) "Corruption as a propensity: Personality and motivational determinants among Nigerians," *Journal of Psychology: Interdisciplinary and Applied*, 150(4). doi: 10.1080/00223980.2015.1107523.
- Ajzen, I. (1991) "The theory of planned behavior," *Organizational Behavior and Human Decision Processes*, 50(2). doi: 10.1016/0749-5978(91)90020-T.
- Aluja, A., García, Ó. and García, L. F. (2003) "Relationships among extraversion, openness to experience, and sensation seeking," *Personality and Individual Differences*, 35(3). doi: 10.1016/S0191-8869(02)00244-1.
- Alvarez, J. P. (2015) "Low-level corruption tolerance: An 'action-based' approach for Peru and Latin America," *Journal of Politics in Latin America*, 7(2). doi: 10.1177/1866802x1500700204.
- Andersson, S. (2017) "Beyond Unidimensional Measurement of Corruption," *Public Integrity*, 19(1). doi: 10.1080/10999922.2016.1200408.
- Ashforth, B. E. *et al.* (2008) "Re-viewing organizational corruption," *Academy of Management Review*. doi: 10.5465/AMR.2008.32465714.
- Aslam, M. S. and Mian, S. N. (2011) "The Impact Of Personality Traits On Academic Dishonesty Among Pakistan Students," *The Journal of Commerce*, 3(2).

- Baehr, M. E., Jones, J. W. and Nerad, A. J. (1993) "Psychological correlates of business ethics orientation in executives," *Journal of Business and Psychology*, 7(3). doi: 10.1007/BF01015756.
- Banfield, E. C. (1975) "Corruption as a Feature of Governmental Organization," *The Journal of Law and Economics*, 18(3). doi: 10.1086/466826.
- Bauhr, M. and Charron, N. (2020) "Do men and women perceive corruption differently? Gender differences in perception of need and greed corruption," *Politics and Governance*, 8(2). doi: 10.17645/pag.v8i2.2701.
- Berkeley, U. C. (2006) "Public attitudes toward corruption and tax evasion : Investigating the role of gender over time," *Management*.
- Berry, C. M., Ones, D. S. and Sackett, P. R. (2007) "Interpersonal deviance, organizational deviance, and their common correlates: A review and meta-analysis," *Journal of Applied Psychology*, 92(2). doi: 10.1037/0021-9010.92.2.410.
- Bicchieri, C. and Ganegoda, D. (2017) "Determinants of corruption: A sociopsychological analysis," in *Thinking about Bribery: Neuroscience, Moral Cognition and the Psychology of Bribery*. doi: 10.1017/9781316450765.008.
- Blake, C. H. and Morris, S. D. (2009) *Corruption and democracy in Latin America, Corruption and Democracy in Latin America*. doi: 10.1177/0094306109356662c.
- Bohn, S. (2013) "Justifying corrupt exchanges: rational-choice corruptors," *Zeitschrift für Vergleichende Politikwissenschaft*, 7(S1). doi: 10.1007/s12286-013-0166-5.
- Bosco, B. (2016) "Old and new factors affecting corruption in Europe: Evidence from panel data," *Economic Analysis and Policy*, 51. doi: 10.1016/j.eap.2016.06.002.
- de Bruin, G. P. and Rudnick, H. (2007) "Examining the cheats: The role of conscientiousness and excitement seeking in academic dishonesty," *South African Journal of Psychology*, 37(1). doi: 10.1177/008124630703700111.

- Brunetti, A. and Weder, B. (2003) "A free press is bad news for corruption," *Journal of Public Economics*, 87(7–8). doi: 10.1016/S0047-2727(01)00186-4.
- Catterberg, G. (2006) "The Individual Bases of Political Trust: Trends in New and Established Democracies," *International Journal of Public Opinion Research*, 18(1). doi: 10.1093/ijpor/edh081.
- Chang, E. and Kerr, N. (2009) "Do Voters Have Different Attitudes Toward Corruption? The Sources and Implications of Popular Perceptions and Tolerance of Political Corruption," *Afrobarometer Working Papers*, (116).
- Chapman, B. P. and Elliot, A. J. (2019) "Brief report: How short is too short? An ultra-brief measure of the big-five personality domains implicates 'agreeableness' as a risk for all-cause mortality," *Journal of Health Psychology*, 24(11). doi: 10.1177/1359105317720819.
- COLLINS, J. M. and SCHMIDT, F. L. (1993) "PERSONALITY, INTEGRITY, AND WHITE COLLAR CRIME: A CONSTRUCT VALIDITY STUDY," *Personnel Psychology*, 46(2). doi: 10.1111/j.1744-6570.1993.tb00875.x.
- Colquitt, J. A. *et al.* (2006) "Justice and personality: Using integrative theories to derive moderators of justice effects," *Organizational Behavior and Human Decision Processes*, 100(1). doi: 10.1016/j.obhdp.2005.09.001.
- Connelly, B. S. and Ones, D. S. (2008) "The personality of corruption: A national-level analysis," *Cross-Cultural Research*, 42(4). doi: 10.1177/1069397108321904.
- Denissen, J. J. A. *et al.* (2008) "Single-item big five ratings in a social network design," *European Journal of Personality*, 22(1). doi: 10.1002/per.662.
- Digman, J. M. (1990) "Personality structure: emergence of the five-factor model," *Annual Review of Psychology*, 41(1). doi: 10.1146/annurev.ps.41.020190.002221.
- Dong, B., Dulleck, U. and Torgler, B. (2012) "Conditional corruption," *Journal of Economic Psychology*, 33(3). doi: 10.1016/j.joep.2011.12.001.

- Dong, B. and Torgler, B. (2009) "Corruption and political interest: Empirical evidence at the micro level," *Journal of Interdisciplinary Economics*, 21(3). doi: 10.1177/02601079X09002100304.
- Eckhardt, K. W. and Gardiner, J. A. (1971) "The Politics of Corruption: Organized Crime in an American City.," *American Sociological Review*, 36(4). doi: 10.2307/2093620.
- Eulau, H. *et al.* (1960) "The American Voter," *The American Political Science Review*, 54(4). doi: 10.2307/1952653.
- Eysenck, H. J. (1980) "Sensation seeking. Beyond the optimal level of arousal," *Personality and Individual Differences*, 1(2). doi: 10.1016/0191-8869(80)90044-6.
- Farralles, M. J. (2012) "What is Corruption?: A History of Corruption Studies and the Great Definitions Debate," *SSRN Electronic Journal*. doi: 10.2139/ssrn.1739962.
- Feldman, S. and Huddy, L. (2005) "Racial resentment and white opposition to race-conscious programs: Principles or prejudice?," *American Journal of Political Science*. doi: 10.1111/j.0092-5853.2005.00117.x.
- Gardiner, J. (2019) "Defining Corruption," in *Political Corruption*. Routledge, pp. 25–40. doi: 10.4324/9781315126647-3.
- Gatti, R. and Rigolini, S. P. (2003) "Individual attitudes toward corruption: do social effects matter? (Inglés)," *Working paper*.
- Gerber, A. S. *et al.* (2010) "Personality and political attitudes: Relationships across issue domains and political contexts," *American Political Science Review*, 104(1). doi: 10.1017/S0003055410000031.
- Gerber, A. S. *et al.* (2011) "The big five personality traits in the political arena," *Annual Review of Political Science*, 14. doi: 10.1146/annurev-polisci-051010-111659.

- Giluk, T. L. and Postlethwaite, B. E. (2015) "Big Five personality and academic dishonesty: A meta-analytic review," *Personality and Individual Differences*, 72. doi: 10.1016/j.paid.2014.08.027.
- Goldberg, L. R. (1990) "An Alternative 'Description of Personality': The Big-Five Factor Structure," *Journal of Personality and Social Psychology*, 59(6). doi: 10.1037/0022-3514.59.6.1216.
- Gouvêa Maciel, G. (2021) "What We (Don't) Know so Far About Tolerance Towards Corruption in European Democracies: Measurement Approaches, Determinants, and Types," *Social Indicators Research*. doi: 10.1007/s11205-021-02690-y.
- Graziano, W. G., Jensen-Campbell, L. A. and Hair, E. C. (1996) "Perceiving Interpersonal Conflict and Reacting to It: The Case for Agreeableness," *Journal of Personality and Social Psychology*, 70(4). doi: 10.1037/0022-3514.70.4.820.
- Heidenheimer, A. J. (1978) *Political Corruption: Readings in Comparative Analysis*, *Political Science : International Studies*.
- Inglehart, R. and Welzel, C. (2019) *World Values Survey Database*, worldvaluessurvey.org.
- Jain, A. (2001) "Power, politics, and corruption," in. doi: 10.4324/9780203468388.pt1.
- Johnston, M. (2005) *Syndromes of corruption: Wealth, power, and democracy*, *Syndromes of Corruption: Wealth, Power, and Democracy*. doi: 10.1017/CBO9780511490965.
- Judge, T. A. *et al.* (1998) "Dispositional effects on job and life satisfaction: The role of core evaluations," *Journal of Applied Psychology*, 83(1). doi: 10.1037/0021-9010.83.1.17.
- Julián, M. and Bonavia, T. (2020) "Psychological variables related to corruption: A systematic review," *Anales de Psicología*, 36(2). doi: 10.6018/analesps.389371.
- Kinder, D. R. and Sears, D. O. (1981) "Prejudice and politics: Symbolic racism versus racial threats to the good life," *Journal of Personality and Social Psychology*, 40(3). doi: 10.1037/0022-3514.40.3.414.

Köbis, N. C. *et al.* (2015) “‘Who doesn’t?’ - The impact of descriptive norms on corruption,” *PLoS ONE*, 10(6). doi: 10.1371/journal.pone.0131830.

Koni Hoffmann, L., Patel Candidate, R. and Arkwright, P. (2017) *Collective Action on Corruption in Nigeria: A Social Norms Approach to Connecting Society and Institutions*, Chatham House.

Kurer, O. (2005) “Corruption: An alternative approach to its definition and measurement,” *Political Studies*, 53(1). doi: 10.1111/j.1467-9248.2005.00525.x.

Lavena, C. F. (2013) “What Determines Permissiveness Toward Corruption?,” *Public Integrity*, 15(4). doi: 10.2753/pin1099-9922150402.

Lederman, D., Loayza, N. v. and Soares, R. R. (2005) “Accountability and corruption: Political institutions matter,” *Economics and Politics*, 17(1). doi: 10.1111/j.1468-0343.2005.00145.x.

Ludeke, S. G. and Larsen, E. G. (2017) “Problems with the Big Five assessment in the World Values Survey,” *Personality and Individual Differences*, 112. doi: 10.1016/j.paid.2017.02.042.

MaDonald, R. and Tariq Majeed, M. (2011) *Causes of Corruption in European Countries : History , Law , and Political Stability*, German ECSA Young Researcher Conference on Europe’s Post-Crisis Stability – An Interdisciplinary Approach.

Malmberg, F. (2018) “The Rotting Fish? Institutional Trust, Dysfunctional Contexts, and Corruption Tolerance A multilevel study of the justification of low-level corruption in a global perspective,” in *ECPR General Conference*.

Manzetti, L. and Wilson, C. J. (2007) “Why do corrupt governments maintain public support?,” *Comparative Political Studies*, 40(8). doi: 10.1177/0010414005285759.

Maxwell, B. (2011) “Personality, identity, and character: explorations in moral psychology,” *Journal of Moral Education*, 40(1). doi: 10.1080/03057240.2011.541998.

- Mayer, N. and Altemeyer, B. (1998) "The authoritarian specter," *Revue Française de Sociologie*, 39(3). doi: 10.2307/3322995.
- McAdams, D. P. (2010) "The Moral Personality," in *Personality, Identity, and Character*. doi: 10.1017/cbo9780511627125.002.
- McCrae, R. R. and Costa, P. T. (1987) "Validation of the Five-Factor Model of Personality Across Instruments and Observers," *Journal of Personality and Social Psychology*, 52(1). doi: 10.1037/0022-3514.52.1.81.
- McFerran, B., Aquino, K. and Duffy, M. (2010) "How Personality and Moral Identity Relate to Individuals' Ethical Ideology," *Business Ethics Quarterly*, 20(1). doi: 10.5840/beq20102014.
- Melgar, N. and Rossi, M. (2012) "Permissiveness toward Illegal Actions in Uruguay: Has This Attitude Changed in Time?," *Economics Research International*, 2012. doi: 10.1155/2012/846326.
- Miceli, M. P. *et al.* (2012) "Predicting employee reactions to perceived organizational wrongdoing: Demoralization, justice, proactive personality, and whistle-blowing," *Human Relations*, 65(8). doi: 10.1177/0018726712447004.
- Miller, J. D. and Lynam, D. (2001) "Structural models of personality and their relation to antisocial behavior: A meta-analytic review," *Criminology*, 39(4). doi: 10.1111/j.1745-9125.2001.tb00940.x.
- Mocan, N. (2008) "What determines corruption? International evidence from microdata," *Economic Inquiry*, 46(4). doi: 10.1111/j.1465-7295.2007.00107.x.
- Moon, H. (2001) "The two faces of conscientiousness: Duty and achievement striving in escalation of commitment dilemmas," *Journal of Applied Psychology*, 86(3). doi: 10.1037/0021-9010.86.3.535.

- Moreno, A. (2002) "Corruption and democracy: A cultural assessment," *Comparative Sociology*, 1(3–4). doi: 10.1163/156913302100418556.
- Mungiu-Pippidi, A. *et al.* (2019) *Controlling Corruption in Europe, Controlling Corruption in Europe*. doi: 10.2307/j.ctvddzs0t.
- Nguyen, N. T. and Biderman, M. (2013) "Predicting Counterproductive Work Behavior from a Bi-factor Model of Big Five Personality," *Academy of Management Proceedings*, 2013(1). doi: 10.5465/ambpp.2013.13719abstract.
- Nye, J. S. (1967) "Corruption and Political Development: A Cost-Benefit Analysis," *American Political Science Review*, 61(2). doi: 10.2307/1953254.
- Pande, S. and Jain, N. (2014) "Relation between personal values and corruption permissiveness of government servants in India and the moderating role of dissatisfaction with the financial condition of the family," *International Review of Public Administration*, 19(2). doi: 10.1080/12294659.2014.915475.
- Pani, M. (2011) "Hold your nose and vote: Corruption and public decisions in a representative democracy," *Public Choice*, 148(1–2). doi: 10.1007/s11127-010-9651-4.
- Payne, S. C., Youngcourt, S. S. and Beaubien, J. M. (2007) "A meta-analytic examination of the goal orientation nomological net," *Journal of Applied Psychology*, 92(1). doi: 10.1037/0021-9010.92.1.128.
- Perri, F. S. (2011) "White-collar criminals: The 'kinder, gentler' offender?," *Journal of Investigative Psychology and Offender Profiling*, 8(3). doi: 10.1002/jip.140.
- "Personality psychology in the workplace" (2002) *Choice Reviews Online*, 39(05). doi: 10.5860/choice.39-3097.
- Philp, M. (1997) "Defining political corruption," *Political Studies*, 45(3). doi: 10.1111/1467-9248.00090.

- Rammstedt, B. and John, O. P. (2007) "Measuring personality in one minute or less: A 10-item short version of the Big Five Inventory in English and German," *Journal of Research in Personality*, 41(1). doi: 10.1016/j.jrp.2006.02.001.
- Rauch, J. E. and Evans, P. B. (2000) "Bureaucratic structure and bureaucratic performance in less developed countries," *Journal of Public Economics*, 75(1). doi: 10.1016/S0047-2727(99)00044-4.
- ROBINSON, S. L. and BENNETT, R. J. (1995) "A TYPOLOGY OF DEVIANT WORKPLACE BEHAVIORS: A MULTIDIMENSIONAL SCALING STUDY.," *Academy of Management Journal*, 38(2). doi: 10.2307/256693.
- Rose-Ackerman, S. and Palifka, B. J. (2016) *Corruption and government: Causes, consequences, and reform: Second edition, Corruption and Government: Causes, Consequences, and Reform: Second Edition*. doi: 10.1017/CBO9781139962933.
- Salgado, J. F. (2002) "The Big Five personality dimensions and counterproductive behaviors," *International Journal of Selection and Assessment*, 10(1–2). doi: 10.1111/1468-2389.00198.
- Sandholtz, W. and Gray, M. M. (2003) "International Integration and National Corruption," *International Organization*. doi: 10.1017/s0020818303574045.
- Sandholtz, W. and Koetzle, W. (2000) "Accounting for corruption: Economic structure, democracy, and trade," *International Studies Quarterly*, 44(1). doi: 10.1111/0020-8833.00147.
- Simha, A. and Parboteeah, K. P. (2020) "The Big 5 Personality Traits and Willingness to Justify Unethical Behavior—A Cross-National Examination," *Journal of Business Ethics*, 167(3). doi: 10.1007/s10551-019-04142-7.
- Sniderman, P. M. and Carmines, E. G. (1997) "Reaching beyond race," *PS - Political Science and Politics*. doi: 10.1017/S1049096500046667.

- Steffens, N. K. *et al.* (2016) "How Multiple Social Identities Are Related to Creativity," *Personality and Social Psychology Bulletin*, 42(2). doi: 10.1177/0146167215619875.
- Stewart, G. L. (1996) "Reward structure as a moderator of the relationship between extraversion and sales performance," *Journal of Applied Psychology*, 81(6). doi: 10.1037/0021-9010.81.6.619.
- Tatarko, A. and Mironova, A. (2017) "Values and Attitudes Towards Corruption: Cross-Cultural Study in Four European Countries," *SSRN Electronic Journal*. doi: 10.2139/ssrn.2791414.
- Tatarko, A. N. *et al.* (2020) "The Relationship Between Human Values and Acceptability of Corruption in Russia and Greece," *Psychology in Russia: State of the Art*, 13(3). doi: 10.11621/pir.2020.0306.
- Tavits, M. (2010) "Why do people engage in corruption? The case of Estonia," *Social Forces*, 88(3). doi: 10.1353/sof.0.0288.
- Torgler, B. and Valev, N. T. (2006) "Corruption and age," *Journal of Bioeconomics*, 8(2). doi: 10.1007/s10818-006-9003-0.
- Torgler, B. and Valev, N. T. (2010) "Gender and public attitudes toward corruption and tax evasion," *Contemporary Economic Policy*, 28(4). doi: 10.1111/j.1465-7287.2009.00188.x.
- Treisman, D. (2000) "The causes of corruption: A cross-national study," *Journal of Public Economics*, 76(3). doi: 10.1016/S0047-2727(99)00092-4.
- Tu, W., Yang, J. and Zheng, Y. (2020) "Influence of individual values on attitudes toward corruption: What undermine formal anticorruption effectiveness," *Asian Journal of Social Psychology*, 23(3). doi: 10.1111/ajsp.12402.
- Turner, M. J. (2014) "An investigation of big five personality and propensity to commit white-collar crime," *Advances in Accounting Behavioral Research*, 17. doi: 10.1108/S1475-148820140000017002.

- UN (2004) *UN Anti-Corruption Tool Kit, International Journal for Academic Development*.
- Uslaner, E. M. (2008) *Corruption, inequality, and the rule of law: The bulging pocket makes the easy life, Corruption, Inequality, and the Rule of Law: The Bulging Pocket Makes the Easy Life*. doi: 10.1017/CBO9780511510410.
- Warf, B. and Stewart, S. (2016) "Latin American Corruption in Geographic Perspective," *Journal of Latin American Geography*, 15(1). doi: 10.1353/lag.2016.0006.
- Wiernik, B. M. and Ones, D. S. (2018) "Ethical employee behaviors in the consensus taxonomy of counterproductive work behaviors," *International Journal of Selection and Assessment*, 26(1). doi: 10.1111/ijsa.12199.
- Williams, C. C. and Martínez, Á. (2014) "Explaining cross-national variations in tax morality in the European Union: An exploratory analysis," *Studies of Transition States and Societies*, 6(1).
- Williams, K. M., Nathanson, C. and Paulhus, D. L. (2010) "Identifying and profiling scholastic cheaters: Their personality, cognitive ability, and motivation," *Journal of Experimental Psychology: Applied*, 16(3). doi: 10.1037/a0020773.
- Wouda, J. *et al.* (2017) "The collaborative roots of corruption? A replication of weisel & shalvi (2015)," *Collabra: Psychology*, 3(1). doi: 10.1525/collabra.97.