

#### Archivos de Criminología, Seguridad Privada y Criminalística Año 9, vol. 18, Enero-Julio 2022 ISSN: 2007-2023 www.acspyc.es.tl

### Perfiles de personalidad asociados a la mentira y el engaño

#### Personality profiles associated with lies and deception

Fecha de recepción: 24/02/2021.

Fecha de aceptación: 19/04/2021.

Dr. Braulio Andrés Elizalde Martínez

<u>brau.elizalde@gmail.com</u>

Dr. Geovany Genaro Reiván Ortíz greivano@ucacue.edu.ec

Universidad Católica de Cuenca

Ecuador

## Resumen

Las personas utilizan la mentira y el engaño para escapar, ocultar o desviar información para beneficio propio. Sin embargo, actualmente la relación entre la personalidad, la mentira y el engaño han sido poco investigadas, siendo el enfoque criminológico quien ha dedicado mayor cantidad de estudios bibliográficos acerca de los perfiles de personalidad asociados a la mentira y el engaño. El propósito de este estudio tiene como objetivo identificar la asociación de la mentira y el engaño en la personalidad mediante una revisión bibliográfica de 21 artículos, utilizando las directrices PRISMA y la herramienta de evaluación critica AMSTAR-2 para la selección y calidad de información recolectada. Finalmente, dentro de los hallazgos principales se determinó que los perfiles de personalidad antisocial y narcisista se asocian con mayor frecuencia a conductas de mentira y engaño.

#### Abstract

People use lies and deception to escape, hide or divert information for their own benefit. However, at present the relationship between personality, lying and deception has been little researched, with the criminological approach being the one that has devoted the most bibliographic studies to personality profiles associated with lying and deception. The purpose of this study is to identify the association of lying and deception in personality through a literature review of 21 articles, using the PRISMA guidelines and the AMSTAR-2 critical appraisal tool for the selection and quality of information collected. Finally, within the main findings it was determined that antisocial and narcissistic personality profiles are more frequently associated with lying and deception behaviors.

| Palabras clave: | Criminología | ; E1 | ngaño; | Keywords: | Criminology;   | Deception; | Lying; |
|-----------------|--------------|------|--------|-----------|----------------|------------|--------|
|                 | Mentira;     |      | de     |           | Personality pr | ofiles.    |        |
|                 | personalidad | l.   |        |           |                |            |        |

### Introducción

At present, the relationship between personality, lies and deception have been little studied and investigated, which has become a necessity for the judicial, forensic and criminological system when identifying which personality profiles are positively associated with lies and deception.

Likewise, Rogers (2008) has devoted himself to studying from the criminology approach, the clinical evaluation of simulation and deception, in which he has defined that



personality, in addition to being a maladaptive pattern of cognitions and behaviors that they develop during the growth period of the human being based on interpretations, experiences and a combination with the prevailing temperament; Cheating and lying behaviors are a common characteristic of many personality profiles, these behaviors being a survival and social adaptation skill (Linares, 2007; Mestre, Risco, Catalán & Ibarra, 2001).

It should be noted that the personality profiles that have been associated mainly with lying and cheating is the antisocial, borderline, narcissistic and histrionic personality. However, other profiles such as the dependent, schizotypal and avoidant personality have also been implicated; in addition to being associated with characteristic psychopathic personality traits. In any case, in each of these profiles deception and lies have manifested themselves differently (Fernández & Echeburúa, 2008; Rogers & Bender, 2020).

Authors such as Rogers & Bender (2020), who have devoted themselves to the study of simulation and deception in clinical evaluation, mention that psychopathy is a personality trait or a pathology characterized by manifesting antisocial behaviors, lack of empathy , egocentricity, lack of remorse and manipulation, they do not seem to be successful or skilled in deceiving and simulating the lie (López & Núñez, 2009).

Ultimately, the purpose of this bibliographic review is to identify the association of lying and deception in the personality, in order to recognize in which types of profiles this type of patterns or behaviors are more frequent.

### Method

#### Design

The design used in the present study has the bibliographic review format, and the quality of the information was based on the statement of the PRISMA guidelines (Reporting elements, preferred for bibliographic, systematic and meta-analysis reviews).

#### Selection criteria

Within the inclusion criteria, the articles of systematic review, meta-analysis and empirical research were taken into account, as well as articles made from 1988 to 2020. On the other hand, the exclusion criteria discarded letters to the editor, articles with a sample of children under 13 years of age, non-conventional literature articles, conference abstracts and documentary material not reviewed by external arbitration.



### Identification and selection of studies

The title and the joint abstract with the keywords were independently examined; this allowed the article's eligibility and discussion of its discrepancies using the critical evaluation tool AMSTAR-2 (see Annexed 1).

#### **Data extraction**

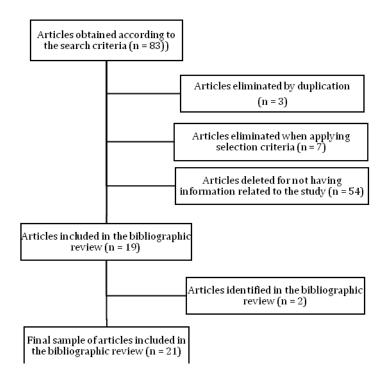
The self-report process was used in data extraction in the included studies. General information related to study characteristics including sample size, condition, design, clinical outcomes, and controls was extracted from each study. General information on the results obtained can be found at Annexed 2.

#### Process

The search for scientific articles on studies related to personality, lying and deception was carried out without specifying the date in the search, in the following databases: *Pubmed, Scopus, Wiley Online Library and Taylor & Francis*. In addition, to incorporate additional references obtained for the purposes of this review. The following keywords were used: *"personality", "psychopath", "lie", "deception"*; with the Thesaurus language search commands: AND, OR, IN and ALLINTITLE. From the search that emerged in the databases, 83 articles were obtained according to the search criteria, of which a total of 64 articles were eliminated, 3 due to duplication, 7 when applying the selection criteria and 54 due to not having the information related to the study, in which a total of 21 articles were included in this study that met the selection criteria of which were analyzed and organized by categories determined by the following criteria: year, objective, method and result (see Figure 1).



#### Figure 1. Information flow



#### Results

### The lie and deception

People lie and cheat not only for their own interests, but sometimes they manifest this behavior for a collective interest or to help other people. Arcimowicz, et. al., (2015) mentions that the lie has two inherent aspects that are its intentionality and the knowledge of falsehood, that is why when a person lies or cheats, they do not report what the intention and the reason for their behavior is. Little is known about the ways that modulate the behavior and responses at the neuronal and physiological level that exist when a person lies or cheats (Cui, et. al., 2018).

Through a study Granhag, et. al., Showed that there are subjective indicators of deception that people associate with disturbances in speech (such as hesitations and errors), in the tone of voice and the way in which something is communicated slowly and slowly, aversion to the gaze, increased smile and body movements such as self-manipulations (movements of the feet and hands). Generally these subjective signs of deception are indicators of nervousness, where it has been the case that people believe that liars feel nervous and act accordingly; however, not all people who lie or cheat act nervous (2004).



Therefore, researchers have focused on the context in which the lie or deception occurs and the decision of this person to lie, it is mentioned that people lie or cheat in different ways and depending on the closeness, importance and intimacy of their interpersonal relationships, which sometimes prevents the subject from telling the truth, due to sanctions or loss of their relationships (Arcimowicz, et. al., 2015).

For this reason, deception and lies occur when a person tries to convince another person to accept as true what is false (Cui, et. al., 2018). That is to say, deception and lies are defined as the intention to create false beliefs in others, its main function being to influence people's behavior. However, the intention of the acts of deception and its relationship with the understanding of false beliefs remains unresolved, due to the lack of empirical studies (Jakubowska & Biatecka, 2019).

In other words, developmental psychology commonly holds that both deception and lying are intentional that are intended to create a false belief in the mind of another person (Jakubowska & Biatecka, 2019). Verschuere & Williem, (2016), argue that lying or cheating typically requires additional mental effort compared to telling the truth. it is a normal component of human social interaction that follows a developmental trajectory. Being the most comprehensive perspective established by Zuckerman, DePaulo and Rosenthal in 198, where they proposed "that when lying people can experience one or more of these four processes: (a) psychophysiological activation (arousal), (b) certain emotions (such as guilt for lying or fear of being discovered), (c) the cognitive difficulty involved in inventing a lie and (d) the challenge of controlling one's own behavior to inhibit possible telltale signs of deception "(Blandón, et. al., 2017).

In addition to that, in forensic contexts, lying or deception is often motivated by the will to avoid negative consequences. However, deception has focused almost exclusively on the effect of motivating rewards or self-interest. Said motivations can reflect moral reasoning and differentiation of cultures (Suchotzki & Gamer, 2018). Aune & Waters, in a study indicated that there are indeed differences regarding the motivation to lie or cheat in collectivist and individualistic cultures, because each one generates cheating behaviors for personal reasons or for the benefit of the family or group of people. The person who executes the lie (1994).

## Personality, lies and deception

Personality is a set of physical and psychological characteristics that, according to González & Besterio, (2015) are maintained for a certain time and persistence. On the other hand, the tendency to lie is part of the personality, Sarzynska, et. al., (2017) refer that people



with greater cognitive abilities are better liars, and that is why lying can be defined as the process by which one individual deliberately strives to persuade another of the truth of a proposition that they themselves know to be false, suggesting that lying occurs in everyday human interaction and that learning to cheat is an important stage in normal social development (Farrow, et. al. al., 2003).

However, Baumert, et. al., (2017) mention that the psychological processes and mechanisms that explain deception behavior have the ability to convince others and identify these abilities mainly with the product of the subjective way in which a person perceives himself. Herself and others; therefore, our perception is intrinsically influenced by various internal and external factors (Zvi & Elaad, 2018).

In other words, unkind, outgoing, and intelligent people are more likely to lie. While personality traits establish general behavioral trends, intelligence and environment establish limits. Research suggests that different combinations of personality traits increase the likelihood of lying (Sarzynska, et. al., 2017). However, Almela, et. al., (2015) indicate that there are a series of specific cognitive, social and emotional characteristics that are exclusive characteristics of psychopathic populations; although in this type of personality traits they frequently lie or manipulate others, using various strategies (Lee, et. al., 2008).

Therefore, studies mention that not all personality profiles adopt the same verbal and non-verbal communication postures, which is why they make some subjects better than others at the time of lying or cheating (González & Besterio, 2015).

Hart, et. al., (2020) examine the correlation between various forms of lying or cheating and the personality factors related to self-esteem, openness, conscience, extraversion, sympathy, neuroticism, showing few significant predictors of personality being the tendency or the Motivation to lie or cheat while ignoring psychological processes or incentives, since lies occur within a complex social group, behavioral and situational contexts that should be systematically considered. According to Riggio, et. al. (1988) the role of personality in the ability to deceive has been largely overlooked where a link between individual differences in levels of social skills, or social competence has been demonstrated and although great part of this deception success is related to an honest behavior bias that society possesses.

It should be noted that psychopathic, narcissistic and antisocial personalities, as reported by Sarzynska, et. al., (2017), these profiles lie more frequently; being self-gain lies and lies without reason, mentioned with the intention of hurting another, which are accompanied by a generalized pattern of grandiosity, need for admiration and deficit of



empathy; however, his self-esteem is fragile and vulnerable; When their ego is threatened, they can respond with anger and hostility (Hart, et. al., 2020; Jiang, et. al., 2013; Zvi & Elaad, 2018).

On the other hand, in histrionic and borderline personalities, signs of self-deception and a deceptive and simulation communication style are observed due to their social skill style (Sarzynska, et. al., 2017). On the other hand, in paranoid, schizoid, schizotypal and obsessive compulsive personalities, cognitive difficulties and a challenge to control their own behaviors such as gestures and postures, associated with deceptive behaviors, are shown (González & Besterio, 2015). And finally, in the evasive and dependent personalities, the psychobiological activation is the one that shows indicators of lying and deception out of fear, behaviors of anxiety, nervousness and an evasive attachment style are manifested (González & Besterio, 2015; Hart, et. al., 2020).

### **Psychopathy and deception**

Individuals diagnosed with psychopathic personality disorders are characterized by having patterns and abilities to lie and cheat, interpersonal traits such as superficial charm, pathological lying, and manipulation (Lee, et. al., 2008).

Fullam, et. al. (2009) defines psychopathy as a construct that is characterized by high levels of insensitive and unemotional traits, which it is believed that these traits are related to the diffusion of the amygdala, so the subject acquires a deception ability; this suggests that those individuals with low levels of fear and harm avoidance may find it easier to lie.

Deceptive behavior and instrumental violence are well-known psychopathic characteristics that play an important role in the evaluation of psychopathy. Most of these individuals tend to exaggerate the reactivity of their violent acts or deceptive behaviors, they tend to lie, manipulate and cheat (Laurell, et. al., 2014)

Although psychopathy is associated with deception and manipulation, studies to date show conflicting findings on the relationship between psychopathy and deception, due to a lack of empirical evidence. Lee, et. al. (2008) proposes that there is an arrogant and egocentric behavior, at the same time that it distracts the listener with a speech full of security, making these types of individuals sound more credible.

However, Wright, et. al. (2015) argue that psychopathy is a prototypical syndrome of lies, deception and pathological manipulation, obtaining particular satisfaction from this type of behavior.



There are not many empirical studies associated with this type of behavior, but the existing literature suggests that, although psychopaths maintain a greater capacity for deception than other personalities (Wright, et. al., 2015).

On the other hand, psychopaths are more used to monitoring and modifying their own deceptive behaviors (Martin & Leach, 2012). The ability to identify subtle social cues or signs of suspicion, allowing psychopathic individuals to be 'more successful social predators' so they could have an advantage in detecting deception.

Psychopathy, however, has been associated with rapidity and even compulsive lying, leading them to explore the ease and compulsive nature of lying in psychopathic offenders. The association between psychopathy and deception has been investigated with a variety of studies including self-report questionnaires, validity tests, paradigms of deception in the laboratory, file reviews, and polygraph tests (Verschuere & Williem, 2016).

Surprisingly, in a review of the Verschuere & Williem literature, they found that the data on the relationship between psychopathy and deception was very mixed. While psychopathic individuals are often portrayed as naturally born liars, there is only weak and inconsistent empirical evidence that psychopathic individuals would lie frequently, easily, and compulsively (2016).

### **Discussion and conclusion**

Ultimately, within the main findings of this study, we identify that antisocial and narcissistic personality profiles are frequently associated with lying and deception behaviors so that benefits or admiration are generated due to patterns of grandiosity, self-centeredness, lack of empathy, hostility to threatening situations. Similarly, González & Besterio (2015) described that suspicious behavior, emotional coldness, the inability to feel or express guilt, is what increases the ability to deceive and lie effectively.

Unlike, the histrionic and borderline personality profiles, where it is observed that this type of behavior is due to patterns of self-deception, simulation and desire for admiration, with the objective of being the center of attention in a social environment. In studies carried out by Pérez, et. al. (2012), state that those people who have this fear of social rejection, or being criticized, are characterized by self-deception and show simulation and lying behaviors seeking to obtain a socially desirable image.

Psychopathic personality profiles when related to antisocial and narcissistic behavioral traits do not seem to show success in the face of lying and cheating skills, since this type of profile focuses on patterns of egocentricity, lack of remorse, manipulation and the



desire to exercise power through the abuse of his environment, so his arrogant behavior can turn out to be his own informer. On the other hand, González & Besterio in 2015 in a study about personality, lies and deception, reported that the traits of an expressive, friendly, manipulative person and even with an attractive physical appearance, made him a good liar.

It should be noted that, in the databases, there are very few studies on personality profiles and how they are associated with lying and deception, so it was difficult to search for articles and determine with more information about how lies and deception are positively associated with the personality. However, within this study it has been observed that the main limitations have been the lack of empirical studies, the size of unrepresentative samples, the lack of bibliographic information, impressions based more on theories than on data, which does not make it possible to generalize the results obtained with greater veracity and characteristic details of the personality patterns.

Therefore, it is proposed that in subsequent studies through this bibliographic review it be used as a result orientation for empirical investigations, taking into account that the size of the samples is considerable. In addition to, make bibliographic updates about the personality patterns associated with lying and deception.

### References

- Almela, A., Alcaraz, G., & Cantos, P. (2015). Analysing deception in a psychopath's speech: A quantitative approach. *DELTA*, 31(2), 559-572. http://dx.doi.org/10.1590/0102-445040702531513856
- Arcimowicz, B., Cantanero, K., & Soroko, E. (2015). Motivation and consequences of Lying. A Qualitative Analysis of Everyday Lying. *Forum: Qualitative Social Research Sozialforschung*, 16(3). http://nbn-resolving.de/urn:nbn:de:0114-fqs1503318
- Aune, K., & Waters, L. (1994). Cultural differences in deception: Motivations to deceive in Samoans and North Americans. *Elservier Science*, 18(2), 159-172. https://doi.org/0147-1767/94
- Baumert, A., Schmitt, M., Perugini, M., Johnson, W., Blum, G., Borkenau, P., Costantini, G., Denissen, J., Fleeson, W., Grafton, B., Jayawickreme, E., Kurzius, E., Macleod, C., Miller, L., Read, S., Roberts, B., Robinson, M., Wood, D., & Wrzus, C. (2017). Integrating Personality Structure, Personality Process, and Personality Development. *European Journal of Personality*, *31*, 503-528. https://doi.org/10.1002/per.2115



- Blandón, I., López, R., Masip, J., & Fenn, E. (2017). Cognición, emoción y mentira: Implicaciones para detectar el engaño. *Anuario de Psicología Jurídica*, 1-12. https://doi.org/10.1016/j.apj.2017.02.004
- Cui, F., Wu, S., Wu, H., Wang, C., Jiao, C., & Luo, Y. (2018). Altruistic and self-serving goals modulate behavioral and neural responses in deception. *Social Cognitive and Affective Neuroscience*, 13(1), 63-71. https://doi.org/10.1093/scan/nsx138
- Farrow, T., Reilly, R., Rahman, T., Herford, A., Woodruff, P., & Spence, S. (2003). Sex and personality traits influence the difference between time taken to tell the truth or lie. *Perceptual and Motor Skills*, *97*, 451-460.
- Fernández, J. & Echeburúa, E. (2008). Trastornos de personalidad y psicopatía en hombres condenados por violencia grave contra la pareja. *Psicothema*, *20(2)*, 193-198.
- Fullam, R., McKie, S., & Dolan, M. (2009). Psychopathic traits and deception: Functional magnetic resonance imaging study. *The British Journal of Psychiatry*, 194(3), 229-235. https://doi.org/10.1192/bjp.bp.108.053199
- González, J., & Besterio, I. (2015). Personalidad, mentira y engaño. *Behavior & Law Journal, 1*(1), 17-26. https://doi.org/10.47442/blj.v1.i1.12
- Granhag, P., Andersson, L., Stromwall, L., & Hartwig, M. (2004). Imprisoned knowledge: Criminal' beliefs about deception. *Legal and Criminological Psychology*, 9, 103-119. https://doi.org/10.1348/135532504322776889
- Hart, C., Lemon, R., Curtis, D., & Griffith, J. (2020). Personality Traits Associated with Various Forms of Lying. *Psychological Studies*, 1-8. https://doi.org/10.1007/s12646-020-00563-x
- Jakubowska, J., & Biatecka, M. (2019). A new model of the development of deception: Disentangling the role of false-belief understanding in deceptive ability. *Social Development*, 1-20. https://doi.org/10.1111/sode.12404
- Jiang, W., Liu, H., Liao, J., Ma, X., Rong, P., Tang, Y., & Wang, W. (2013). A Functional MRI Study of Deception Among Offenders with Antisocial Personality Disorders. *Neuroscience*, 244, 90-98.
- Laurell, J., Belfrage, H., & Hellstrom, A. (2014). Deceptive behaviour and instrumental violence among psychopathic and non-psychopathic violent forensic psychiatric patients. *Psychology, Crime & Law, 20*(5), 467-479. https://doi.org/10.1080/1068316X.2013.793341



- Lee, Z., Klaver, J., & Hart, S. (2008). Psychopathy and verbal indicators of deception in offenders. *Psychology, Crime & Law, 14*(1), 73-84. https://doi.org/10.1080/10683160701423738
- Linares, J. (2007). La personalidad y sus trastornos desde una perspectiva sistémica. *Clínica y Salud*, *18*(3), 381-399.
- López, M. & Núñez, M. (2009). Psicopatía versus trastorno antisocial de la personalidad. *Revista Española de Investigación Criminológica*, *7*, 1-17.
- Martin, K., & Leach, A. (2012). Psychopathy and deception detection. *Personality and Mental Health*, 7(2), 154-159. https://doi.org/10.1002/pmh.1215
- Mestre, L., Risco, P., Catalán, A. & Ibarra, O. (2001). Perfiles de personalidad Millon: Comparación de pacientes adictos a opiáceos y a cocaína. *Trastornos Adictivos*, 3(4), 288-289. https://doi.org/10.1016/S1575-0973(01)78578-9
- Pérez, I., Armas-Vargas, E., García, P., Martin, A., & Bethencourt, J. (2012). Personalidad, mentira y conducta agresiva. *Avances en Psicología Clínica.* 1-5.
- Riggio, R., Salinas, C., & Tucker, J. (1988). Personality and deception ability. *Pergamon Journals,* 9(1), 189-191.
- Rogers, R. (2008). *Clinical Assessment of Malingering and Deception* (3rd ed.). The Guilford Press.
- Rogers, R., & Bender, S. (2020). *Clinical Assessment of Malingering and Deception* (4th ed.). The Guilford Press.
- Sarzynska, J., Falkiewicz, M., Riegel, M., Babula, J., Margulies, D., Necka, E., Grabowska, A., & Szatkowska, I. (2017). More intelligent extraverts are more likey to deceive. *Plos One*, *12*(4), 1-17. https://doi. org/10.1371/journal.pone.0176591
- Suchotzki, K., & Gamer, M. (2018). Effect of negative motivation on the behavioral and autonomic correlates of deception. *Psychophysiology.* https://doi.org/10.1111/psyp.13284
- Verschuere, B., & Williem, H. (2016). Psychopathic Traits and Their Relationship with the Cognitive Costs and Compulsive Nature of Lying in Offenders. *Plos One*, *11*(7), 1-11. https://doi.org/10.1371/journal.pone.0158595
- Wright, G., Berry, C., Catmur, C., & Bird, G. (2015). Good Liars Are Neither «Dark» Nor Self-Deceptive. *Plos One*, 10(6), 1-11. https://doi.org/10.1371/journal.pone.0127315



Zvi, L., & Elaad, E. (2018). Correlates of narcissism, self-reported lies, and self-assessed abilities to tell and detect lies, tell truths, and believe others. *Journal of Investigative Psychology and Offender Profiling*, 1-16. https://doi.org/10.1002/jip.1511

## Annexed 1

AMSTAR is a measurement tool created to assess the methodological quality of systematic reviews.

| 1. Was an 'a priori' design provided? The research question and inclusion criteria should be established before the conduct of the review.   | Yes<br>No      |
|--|----------------|
|  | Can't answer   |
|  | Not applicable |
| 2. Was there duplicate study selection and data extraction? There should be at least   | Yes            |
| two independent data extractors and a consensus procedure for disagreements should be in place.  | No             |
|  | Can't answer   |
|  | Not applicable |
| 3. Was a comprehensive literature search performed? At least two electronic sources  | Yes            |
| should be searched. The report must include years and databases used (e.g. Central, EMBASE, and MEDLINE). Key words and/or MESH terms must be stated and where                             | No             |
| feasible the search strategy should be provided. All searches should be  | Can't answer   |
| supplemented by consulting current contents, reviews, textbooks, specialized registers, or experts in the particular field of study, and by reviewing the references in the studies found. | Not applicable |
| 4. Was the status of publication (i.e. grey literature) used as an inclusion criterion?  | Yes            |
| The authors should state that they searched for reports regardless of their publication type. The authors should state whether or not they excluded any reports                            | No             |
| (from the systematic review), based on their publication status, language etc.   | Can't answer   |
|  | Not applicable |
| 5. Was a list of studies (included and excluded) provided? A list of included and  | Yes            |
| excluded studies should be provided.   | No             |
|  | Can't answer   |
|  | Not applicable |
| 6. Were the characteristics of the included studies provided? In an aggregated form  | Yes            |
| such as a table, data from the original studies should be provided on the participants, interventions and outcomes. The ranges of characteristics in all the studies analyzed              | No             |
| e.g. age, race, sex, relevant socioeconomic data, disease status, duration, severity, or   | Can't answer   |
| other diseases should be reported.   | Not applicable |
| 7 Was the scientific quality of the included studies assessed and documented? 'A   | Yes            |

7. Was the scientific quality of the included studies assessed and documented? 'A Yes priori' methods of assessment should be provided (e.g., for effectiveness studies if



| the author(s) chose to include only randomized, double-blind, placebo controlled<br>studies, or allocation concealment as inclusion criteria); for other types of studies<br>alternative items will be relevant.   | No<br>Can't answer<br>Not applicable        |
|--|---|
| 8. Was the scientific quality of the included studies used appropriately in formulating conclusions? The results of the methodological rigor and scientific quality should be considered in the analysis and the conclusions of the review, and explicitly stated in formulating recommendations.  | Yes<br>No<br>Can't answer<br>Not applicable |
| 9. Were the methods used to combine the findings of studies appropriate? For the pooled results, a test should be done to ensure the studies were combinable, to assess their homogeneity (i.e. Chisquared test for homogeneity, I2). If heterogeneity exists a random effects model should be used and/or the clinical appropriateness of combining should be taken into consideration (i.e. is it sensible to combine?). | Yes<br>No<br>Can't answer<br>Not applicable |
| 10. Was the likelihood of publication bias assessed? An assessment of publication bias should include a combination of graphical aids (e.g., funnel plot, other available tests) and/or statistical tests (e.g., Egger regression test).   | Yes<br>No<br>Can't answer<br>Not applicable |
| 11. Was the conflict of interest stated? Potential sources of support should be clearly acknowledged in both the systematic review and the included studies.   | Yes<br>No<br>Can't answer<br>Not applicable |

# Annexed 2

Studies included in the bibliographic review

| Authors               | Year | Database | Objective  | Sample   | Result  |
|-----------------------|------|----------|--|--|---|
| Almela, et.<br>al.    | 2015 | Scopus   | Explore deception in<br>the speech of a<br>psychopath through<br>quantitative analysis<br>through<br>psycholinguistic<br>categories. | A person diagnosed with psychopathy.   | It has been observed<br>that cognitive processes,<br>the linguistic elements<br>classified as "insight" is<br>more frequently found<br>in the truth.        |
| Arimowicz,<br>et. al. | 2015 | Scopus   | Explore thoughts and<br>attitudes towards<br>lying in interpersonal<br>relationships.  | 28 men and 55<br>women participated;<br>the age range was 18<br>to 64 years. | The protective aspect of<br>lying turned out to be<br>important to the study,<br>which, it is considered<br>that people lie primarily<br>for personal gain. |
| Aune &<br>Waters      | 1994 | Scopus   | Evaluate the use of deception in people  | Data were collected<br>from 82 male and                                      | There are cultural differences in the degree  |



|                     |      |                            | and in their<br>relationships.  | female volunteers<br>between the ages of<br>19 to 59 years in<br>North America and<br>American Samoa.  | of motivation to cheat<br>on another person.<br>Many of the differences<br>are predictable results<br>of the respective<br>natures of collectivist<br>cultures who would<br>deceive another if the<br>deceit were for the good<br>of the deceiver's family<br>or group or if the deceit<br>was necessary to please<br>an authority figure. On<br>the other hand,<br>individualists reported<br>that they would be more<br>inclined to mislead<br>about matters they<br>consider beneficial. |
|---------------------|------|----------------------------|---|--|---|
| Baumert,<br>et. al. | 2017 | Wiley<br>Online<br>Library | Identify the intra-<br>individual<br>psychological<br>processes that explain<br>the variation in<br>behavior in different<br>situations, as well as<br>the systematic inter-<br>individual differences. | Partial consensus<br>between 19<br>scientists who<br>participated in the<br>meeting and author<br>of this document   | Personality and<br>individual differences<br>are broadly grouped<br>according to their main<br>starting point: 1) the<br>structures of inter-<br>individual differences,<br>2) the intra-individual<br>processes that guide<br>behavior, and 3) the<br>development of<br>personality  |
| Blandón, et.<br>al. | 2017 | Scopus                     | Arguing the lack of<br>evidence in support of<br>the non-verbal-<br>emotional approach in<br>lie detection has<br>favored the<br>development of<br>cognitive orientation.                               |  | Ultimately, the traditional approach in lie detection can hardly work, since sincere and liars (a) will experience the same negative emotions and with a similar intensity and (b) share the intention to be believed.  |
| Cui, et. al.        | 2018 | Pubmed                     | Investigate the neural<br>processes associated<br>with spontaneous<br>deception that occurs<br>with altruistic reasons,<br>self-interest motives,<br>and mixed goals.                                   | 35 participants<br>participated in this<br>study. One<br>participant was<br>rejected due to<br>technical problems<br>therefore the data<br>that were included in<br>the analysis were<br>from 34 participants. | In making decisions<br>about whether to lie,<br>self-interest was a<br>stronger motivator than<br>the interests of others,<br>and participants tended<br>to lie more for<br>themselves than for<br>others.  |



| Fullam, et.<br>al.       | 2009 | PubMed                     | To investigate the<br>relationship between<br>neural responses<br>during deception and<br>psychopathic<br>personality traits in a<br>sample of male<br>participants drawn<br>from the normal<br>population. | 24 male participants<br>aged 19 to 60 who<br>performed a<br>deception paradigm<br>while undergoing<br>functional magnetic<br>resonance imaging.<br>Psychopathic traits<br>were assessed in the<br>sample using the<br>Psychopathic<br>Personality<br>Inventory (PPI).  | The subscales of the<br>Psychopathic<br>Personality Inventory<br>were found to be<br>coldness, fearlessness,<br>Machiavellian<br>egocentricity, social<br>potency, and immunity<br>to stress to correlate<br>with activation patterns<br>in brain circuits<br>involved in both<br>deception and related<br>processes. , such as<br>behavioral moderation<br>and social cognition. |
|--------------------------|------|----------------------------|---|--|---|
| Granhag, et.<br>al.      | 2004 | Wiley<br>Online<br>Library | Examine beliefs about<br>deception.   | A total of 326<br>participants. The<br>sample consisted of<br>107 high-security<br>prison inmates, 103<br>prison officers, and<br>116 students.  | It was shown that the<br>criminals reached a<br>level of precision in the<br>detection of lies<br>significantly higher than<br>that possibility, while<br>the students did not.   |
| González &<br>Besteiro   | 2015 | Scopus                     | Establishing the<br>relationship between<br>personality and<br>deception well can<br>help improve lie<br>detection in high-<br>profile contexts, such<br>as police and<br>forensics.                        | Review of some<br>recent studies that<br>have addressed the<br>relationship between<br>personality, lies and<br>deception, from<br>different<br>perspectives; An<br>attempt has been<br>made to identify the<br>most relevant<br>factors, in terms of<br>the trait personality<br>model, with a<br>biological basis, by<br>Eysenck (1969). | Certain aspects of the<br>personality are clearly<br>associated with a<br>greater tendency and<br>capacity for deception,<br>and even with certain<br>types of deception, the<br>works are still scarce<br>and limited, for which<br>more research and<br>methodological<br>improvements are<br>necessary.  |
| Hart, et. al.            | 2020 | Scopus                     | Explore the<br>relationship between<br>personality traits and<br>the tendency to lie.   | 352 participants<br>volunteered for this<br>study  | Self-esteem, openness,<br>conscientiousness,<br>extraversion, and<br>kindness were<br>negatively correlated<br>with lying, while<br>neuroticism was<br>positively correlated<br>with lying.   |
| Jakubowska<br>& Biatecka | 2019 | Wiley<br>Online            | Offer a 3-stage<br>theoretical model of   |  | There are several important limitations to  |



|                | Library                  | the development of deception in humans  |  | the deception model.<br>One of them is the<br>omission of variables,<br>whose ability to deceive<br>has been demonstrated,<br>which allows you to<br>identify this type of<br>behavior.  |
|----------------|--------------------------|---|--|--|
| Jiang, et. al. | 2013 Pubmed              | To examine a<br>functional<br>neuroimaging study in<br>people with antisocial<br>personality disorders<br>to describe the<br>correlates of<br>deception | 480 volunteers were<br>recruited from the<br>Hunan Province<br>School for Juvenile<br>Offenders.   | The two-sided study on<br>neural correlates was<br>associated with<br>deception in people<br>with antisocial<br>personality disorder<br>and secondly, the BOLD<br>(lie> truth) contrast<br>activities of the<br>mentioned regions<br>decreased as the ability<br>to deceive increased.                             |
| Laurell, et. i | 2014 Taylor &<br>Francis | Examine the way<br>psychopaths and non-<br>psychopaths describe<br>their violent crimes.  | 35 patients (seven<br>women and 28 men)<br>admitted to the<br>Sundsvall Forensic<br>Psychiatric Hospital<br>in Sweden who had<br>all been convicted of<br>at least one violent<br>crime and had been<br>evaluated for<br>psychopathy | This result highlights<br>the fact that criminals<br>rethink the level of<br>instrumentality of past<br>violent crimes and,<br>therefore, use deception<br>in interviews about<br>their crimes. This use of<br>deceptive behavior is a<br>dangerous tool that<br>criminals can use to<br>obtain parole or release. |
| Lee, et. al.   | 2008 Taylor &<br>Francis | Examine the<br>association between<br>psychopathy and<br>verbal indicators of<br>deception  | 45 adult male<br>offenders between<br>the ages of 19 and 51  | There are verbal<br>indicators that<br>distinguish true from<br>false narratives in<br>offenders, as well as<br>some verbal indicators<br>that differ between<br>psychopathic and non-<br>psychopathic offenders.  |
| Martin &       | 2012 PubMed              | Examine whether<br>psychopathic traits are<br>related to stopping<br>deception  | 117 undergraduate<br>students (64 women<br>and 53 men).  | Despite the difference in<br>groups, no relationship<br>was found between<br>deception arrest and<br>psychopathic traits,<br>concluding that there<br>were no differences<br>between groups  |



| Riggio, et.<br>al.      | 1988 | Scopus | To examine the<br>relationships between<br>the 16 Personality<br>Factors Questionnaire,<br>the Marlowe-Crowne<br>Social Desirability<br>Scale, the Bern Sex<br>Roles Inventory, and<br>the ability to deceive<br>in a credibility<br>laboratory. | <ul> <li>38 university volunteers (I3 men, 25 women)</li> <li>And 34 judges (I7 men, I7 women)</li> </ul>  | Apprehensive, insecure,<br>guilty individuals<br>tended to be less<br>successful in deception<br>attempts, while self-<br>controlled, self-<br>disciplined individuals<br>may have been better<br>able to control anxiety<br>signals while cheating,<br>and were rated as more<br>credible in the condition<br>of deception. Cheated.  |
|-------------------------|------|--------|--|--|--|
| Sarzynska,<br>et. al.   | 2017 | Pubmed | Present three studies<br>in which the<br>participants have free<br>choice about their<br>honesty. Relate<br>differences in<br>cognitive abilities and<br>personality to the<br>probabilities of lying.   | In this research 3<br>experiments were<br>carried out:<br>- Experiment 1: 76<br>people<br>- Experiment 2: 44<br>people<br>Experiment 3: 34<br>people | Previous research has<br>clearly indicated that<br>the tendency to have<br>deceptive behaviors<br>related to specific<br>personality traits and<br>contextual factors. The<br>results strongly indicate<br>that fluid intelligence<br>has a significant<br>relationship with the<br>odds of deception and<br>interacts with<br>extraversion. Highly<br>intelligent extroverts<br>are the most likely to<br>engage in deceptive<br>behavior. Highly<br>intelligent introverts as<br>well as quirky ones with<br>less intelligence are the<br>least likely to cheat. |
| Suchotzki &<br>Gamer    | 2018 | Scopus | Replicate previous<br>studies on the<br>behavioral and<br>autonomic correlates<br>of deception and<br>investigate<br>the influence of<br>negative motivation<br>on these correlates.   | 57 participants<br>volunteered to<br>participate in the<br>study.  | The behavioral and<br>autonomic correlates of<br>deception and the effect<br>of motivation on them,<br>use negative motivation,<br>where the participants<br>avoided an unpleasant<br>negative stimulation by<br>lying well. The results<br>revealed longer reaction<br>times and a relative<br>decrease in heart rate<br>for lying compared to<br>the truth.  |
| Verschuere<br>& Williem | 2016 | PubMed | Examine compulsive lying empirically, and  | 52 offenders were recruited from three   | Clinically, it is<br>interesting that  |



|                    |      |                            | provide preliminary<br>support for the<br>compulsive nature of<br>lying in the<br>manipulative<br>grandiosity of<br>criminals   | Dutch rehabilitation<br>institutions            | grandiose manipulative<br>offenders chose to lie<br>despite the likely<br>negative consequences,<br>targeting compulsive<br>lying.   |
|--------------------|------|----------------------------|---|---|--|
| Wrigth, et.<br>al. | 2015 | PubMed                     | Assess whether the<br>ability to lie effectively<br>and detect lies told by<br>others, it was related<br>to the Dark Triad, the<br>Acceptability of Lying,<br>or self-deceptive<br>measures of<br>personality through an<br>interactive group<br>deception task | 75 adults<br>participated (28<br>men, 47 women) | The Dark Triad traits<br>(Machiavellianism,<br>Psychopathy, or<br>Narcissism) were not<br>associated with the<br>ability to produce lies<br>that others found<br>difficult to discriminate<br>from the truth, or to<br>discriminate truth from<br>lies when judging<br>others. However, the<br>acceptability of the lie<br>was associated with the<br>ability to produce<br>successful lies. |
| Zvi & Elaad        | 2018 | Wiley<br>Online<br>Library | Investigate the<br>association between<br>narcissism and<br>various self-reports of<br>truth-lie-related skills.  | 125 participants                                | The results suggest that<br>there are strong links<br>between perceived<br>ability to tell lies and<br>narcissistic<br>characteristics. At the<br>opposite extreme, we<br>can find people who find<br>it difficult to persuade<br>others to believe their<br>lies. These people have<br>little or no narcissistic<br>qualities and tend to<br>stick to the truth.                            |