

CONSIDERATIONS REGARDING DECEPTION DETECTION IN INVESTIGATIVE ACTIVITIES

Alin DREPTATE¹

Abstract: *The analysis of deception in investigative activities represents a process taking place in the domains of verbal, written and nonverbal communication through the presence of indicators that necessitates both fusion and conjugated interpretation. These indicators are not proof of deception; however, they mark the existence of inadvertencies that require further exploration. Additionally, bio-psychological and social traits of persons engaged in the investigation, and cultural factors, all corroborated with the limits of analytical techniques, contribute to underlining the complexity of the investigation. The acknowledgement of these limitations allows one to diminish subjectivity, but not to fully eradicate it.*

Key words: *deception, nonverbal, culture, investigative techniques.*

1. Introduction

In a criminal investigation, successful questioning of those considered suspects or witnesses is dependent on the ability of the investigator to build a relationship with them and show empathy. These are achieved through the study of communication and experience (by interacting with people), and are dependent on the careful analysis of the external indicators emitted by persons, through the words chosen, nonverbal cues associated with them, and by observing the specific ways the statements were written. The investigator can overcome the reluctance of the interviewee to provide information, or their decision to deceive, by triggering reactions that amplify cognitive or emotional processes. The result is observable in the latter through the presence of bodily indicators and changes of behaviour (Navarro, 2008). Hesitation in providing relevant information to the investigation exists until the interviewer influences the suspect to act in accordance with the society's system of values and creates the need to tell or contribute to finding out the truth.

Identifying deception presents difficulties regarding the concepts used, with some terms being erroneously considered exhaustive for the whole spectrum of deception. Examples of these terms are simulated behaviour, lying, dissimulation, or error. By comparison to them, the Romanian terms of communication associated with "insincere" are more appropriate, despite not being as attractive as the English term of deception.

¹ Salford University, United Kingdom, alindreptaterou@gmail.com , corresponding author.

The concept of insincere communication is more suitable than the terms mentioned above, because insincere communication encompasses all forms of acts used to disinform, without reference to a specific method. By comparison, simulated behaviour reduces insincerity to just behaviour, and the deceptive statements can no longer be included in this category. In addition, the presence of the word 'simulated', which by definition implies to project a feature that does not exist and is desirable at that time, excludes those features that are not desirable and must be hidden and therefore concealed. The concept of lying is correctly used only when something insincere is broadcast on the verbal channel, but it does not incorporate situations when the person does not speak and still transmits an insincere message. The error is usually accidental, while insincere communication is intentional. Thus, insincere communication (deception) is much more comprehensive because it incorporates intentional, conscious acts (not just statements), in which the communicator believes he or she is lying (whether the information presented is false or true), which takes place between human beings, to the disadvantage of the receiver and without prior notice of the act (David Livingstone Smith, 2004; Ekman, 2001; Vrij, 2008; Zuckerman et al., 1981).

2. Deception Detection

Deception detection takes place in all three areas of verbal, written and nonverbal communication. From a verbal perspective, for a lie to be considered a form of verbal deception it must include, as mentioned earlier, awareness of what is said as false and the lie having negative effects for its receiver. These limitations exclude some "lies" for their failure to fulfil the above features such as the "innocent" lies with no negative effects, transparent lies (sarcasm, joke) (DePaulo, 2009), altruistic ones, or pathological lies (Ford, 1996). The typology of pathological lies caused by neurological syndromes and dysfunctions (for example, confabulation; reduplicative paramnesia; or Munchausen syndrome) must be known to the investigator in order to be able to understand the presence of a case that overcomes their competence, and to question the veracity of the information already obtained.

The analysis of the structure of lying, the purpose and the methods allows the identification of the most difficult lies to notice and those most negatively perceived by a person. Lies by omission (as a method of performing them), or those combined with half-truths (by analysing the structure of a lie) posed the greatest difficulties in identification. In some cases, the omission was even viewed with indulgence, not even being considered a lie by some Catholic clerics. Equivocation was considered the most offensive by the recipient of the message similar to the lies that were told to close partners (Burgoon, Buller, White, and Ebesu, 1994; DePaulo, Stone, and Lassiter, 1985; DePaulo et al., 1996); hence, regardless of culture, the lie told to someone in the inner circle will always be considered or perceived as callous because it redefines the common past and grants negative valences to what was perceived positively between the two people until then.

Identifying the motivation of the lie is challenging because of its diversity, from satisfying basic needs to positive or negative affiliation, self-esteem, maintaining the

body's homeostasis, or just for the pleasure of misleading the other person (Ford, 1996; Ekman 1985/2009). The greater the motivation for the success of deception, the more external cues were present together with attempts to control the information transmitted (cognitive load) and the overall composure of a person (Ekman, 1985/2009; Burgoon et al., 1996). If a person prepared the scenario, the cues were better controlled; a lack of preparation led to the appearance of a larger and more obvious number of cues indicating a problem in the congruency of the message sent out. A small motivation did not allow the discovery of noticeable differences between lying and telling the truth (Ekman, 1985/2009; Burgoon et al., 1996; DePaulo, 1996).

Techniques used in identifying deception in verbal communication and statements include Fred Inbau's Behavior Analysis Interview (2005), Psychological Narrative Analysis (PNA) (Schafer, 2010), and Statement Analysis (SA) (McClish, 2012; Adams, 1996). They establish correlations between a person's degree of insincerity and the use of typologies of answers, words and grammatical structures, which warn the investigator about the existence of missing information, or inconsistencies. However, the degree of truth or deception cannot be established without a trace of uncertainty (Vrij, 2008). Observance of rules such as statements written by hand by the suspect and not by a member of law enforcement, shortly after the incident, without the intervention of a third party on what and how to describe the event, increases the validity of techniques in identifying deception (Schafer, 2010). The application of PNA and SA on real statements in cases of serious violations of the law highlighted the points where the suspect lied by omission, used or gave other meanings to words, and the tense of the verb was different in important points of the statement. Reservations regarding the efficiency of these techniques have been identified regarding certain elements of grammar, the techniques being built by analysing the English language. From this perspective, and customized to the Romanian language, but without generalizing, the use of the present perfect and the gerund was observed in the moments when the statement was ambiguous and lacked details.

The quantification of statements in percentages, counting sentences and words, confirmed the findings of greater details in the beginning and end of the statement to the detriment of the event itself and an unusual presence of emotional feelings before and during the event, when their place was after the incident (Adams, 1996; McClish, 2012; Schafer, 2010). Grammatical errors and the absence of punctuation marks (Schafer, 2010), as well as the presence of euphemisms and the appeal to influential social figures, perceived as a standard for the values of the society (Ekman, 1985/2009), were noticed in experiments, in cases when the person made false statements. The analysis of written statements using the Reality Monitoring (RM) and Statement Validity Analysis (SVA) discussed pre-interaction factors (regarding people, event, context or background), the structure of the interview (with open or closed questions) and the presence (or absence) of information obtained through the use of the five senses. Analysing indicators of compromised information allowed the discovery of knowledge superior to the training of the suspect, or deviant from what is normal, plausible or realistic. It is important to mention the presence of a higher percentage of words indicating cognitive operations in false statements than the spatial or temporal details of the event investigated. Although these findings support the idea that if a person is not

sincere, they should not be considered as evidence that the person is lying. Their corroboration should inform the investigator about the presence of inaccuracies to allow them to continue their questioning until a satisfactory answer is obtained.

The success of deception is facilitated by certain psychological tendencies, such as the presumption of truth (the assumption that what is communicated is true), or by personal mannerism, for example, by using broad or very restrictive definitions of words, depending on the purpose. Other situations include the creation of an internal dictionary in which the meaning of the words is known only to the emitter of the lie; this creates a nuance of what has been said or aims to mitigate reprehensible acts by reclassifying them as something else. For example, people did not steal, but "borrowed," did not kill, but "silenced"; and in the case of the rape in Vaslui in 2014, the persons involved presented their acts as "sex-surprise". People who lie successfully can also be helped by hereditary factors (Bond and Robinson, 1988), such as an "honest man" physiognomy or living in a family where certain types of lies are a learned behaviour. Temperament, which is considered innate, can promote the act of lying, and in the case of the sanguine type, the multitude of social relationships can favour that (Vaillant, Bond, Vaillant, 1986). The typology of lies is also influenced by traits formed in childhood; thus, introverts approach relationships differently from the perspective of insincere communication (they lie to keep a positive image), unlike extroverts, who lie to create more relationships (Bowlby, 1980, apud Vrij, 2008).

Nonverbally, external indicators associated with deception vary in presence and amplitude due to the management of behaviour and self-image (Burgoon et al., 1996; Zuckerman et al., 1981; DePaulo et al., 1996). This is the result of the intention of interlocutors to control, for example, the nonverbal "leaks" or "microexpressions" (Ekman, 1985/2009). An increase in cognitive activity, pigmented with emotional reactions, and the desire to master what is not in accordance with the message sent, triggers the presence of these indicators when what is being presented is different from reality. However, it was noticed that the occurrence of external indicators is reduced in people who have relapsed in their crimes, or their violations of the rules of the society occurred for a long time (Vrij, 2008, Feldman et al., 2002, Burgoon et al., 1996). With the exception of sociopath personalities, criminals continue to show real emotions due to their innate human characteristics and their socialization in communities, no matter how deficient, and despite their 'desensetisations' to the values of society. In their case, the indicators are usually harder to identify, but they do exist.

There is no clear cue of nonverbal deception, but the presence of discrepancies between the projected self-image and the verbal aspect of communication can indicate a potential inner conflict. If in truthful situations the congruency between the verbal message and the nonverbal cues is automatic, in deception a person will not be able to voluntarily coordinate the transmission of the message in the same time sequence and with the same naturalness in gestures, facial expressions, eye movement, 'vocalics', touch and olfaction (Burgoon et al., 1996). The lack of congruence causes gaps between what is asserted and elements of kinesics, a demonstrated link existing between insincerity and the lack of (or decrease in) illustrators (Ekman, 1985/2009). A possible explanation for the latter is the intense activity in the higher cognitive structures (e.g.,

brain), which inhibits the activity of the lower levels (e.g., limbs) (Spence et al., 2004). It is necessary to emphasize that the externalization of emotions is culturally conditioned in terms of amplitude (e.g., more discreet joy) and context (when or where to be used) (Matsumoto, 2001). Moreover, nonverbal cues are fluid and adaptable in contact with a new culture. Overall, it is impossible not to communicate due to nonverbal precedence over verbal communication during ontogenesis and its primacy in interactions (Burgoon, Buller and Woodal, 1996). Because of this, nonverbal communication plays a significant part in communication (60% according to Hall, 1982, while others claim higher percentages) and consequently plays a substantial role in detecting deception. For a fair assessment of deception, the interpretation of nonverbal cues needs to be correlated with the verbal aspect of communication (Riggio and Feldman, 2005; Navarro and Karllins, 2008).

From a biological perspective, the existence of the three structures of the brain, the reptilian brain (brainstem), the limbic system and the neocortex (MacLean, 1952) allows the body to react in varying degrees to the telling of a lie. The brainstem, responsible for coordinating body functions, manifests itself without trying to simulate or disguise what the person is experiencing or doing (by activating the sympathetic or parasympathetic system), while the limbic part, through its fast responses, activates reactions of stillness (or shock), fight or flight (Navarro and Karllins, 2008). The neocortex is most active from the perspective of deception (especially verbally), as a result of its conscious control over the information transmitted and what should be sent out to the interlocutor. These systems have varying degrees of autonomy and generate external cues, which, if observed, indicate the existence of an internal conflict.

3. Contextual Factors

The research in the field of deception has highlighted contextual aspects such as the influence of suspicion on the interviewing process, and how varying degrees of suspicion exhibited by the investigator can negatively influence the discovery of deception. When the suspicion is exaggerated, this informs the emitter of the lie about its presence and causes the liar to improve their presentation. If the suspicion is low, the investigators show naivety and tend to accept what they are told. A proportionate suspicion, corroborated with an open-minded attitude of the investigator, leads to the best results, especially in situations where there was no prior relationship between the interviewer and interviewee (Buller, Burgoon, Buslig and Roiger, 1994; Burgoon, Buller and Woodall, 1989/1996). The familiarity between interlocutors worked in most cases to the detriment of the investigator, except when the presence of an unexpected question allowed the observation and interpretation of the interviewee's reactions with greater clarity (Burgoon, Buller, Ebesu and Rockwell, 1994).

The perception that mostly a formal posture of the investigator towards a deceptive person was successful in finding out the truth is refuted, but not excluded, because an informal relationship proves in many cases to be more successful. As the process of knowing and investigating the person is a complex one, which requires knowledge of sociology, psychology or psychiatry, medicine and other related fields, its dynamic

character does not allow the claim that only an informal attitude will give results. In reality, the attitude towards the interviewee is established by the investigator who will choose how to interact with the interviewee, depending on the image he or she wants to project, on the desires and vulnerabilities of the subject are, on the degree of education, conversational limitations (e.g., due to language), and familiarity with the information presented, all grouped under the concept of "pre-interactional factors". Access to this information is never easy to obtain on time, or in full.

Culture is another factor that regulates the framework of interpreting what is considered deception, and the norms of externalizing cues. In the interviewing process, the person must be understood in the context of their culture (e.g., formal, informal or technical), and in the absence of prior training, the interviewer can gather information about the interviewee by observing some of their behaviour and ways of processing information. These observations can be classified under the way the suspect is interacting (for example, there are differences in face-to-face communication with Americans and Britons); patterns of norms and behaviours (culture oriented towards the individual or the team); aspects of subsistence, territoriality and temporality; types of thinking (based on argumentation or memorisation); and the use of external objects that indicate, for example, the suspect's status (Hall, 1959).

To exemplify the above-mentioned situations, in the case of Afghan culture, the elements of history, geography and security-related events, past or present, characterize the Afghan's mannerism. The overlap of civilian and clerical systems of leadership and the different perception of their importance by the locals invalidates, for examples, the understanding of a person according to the stages of Maslow's pyramid. In Afghanistan, the emphasis is on the community and not on the individual, which would make the next stage of basic needs those of affiliation, because belonging to a clan or tribe is what will guarantee the security of the person. From a nonverbal perspective, investigative activities to identify deception must take into account typical Afghan elements of behaviour such as short social distances practised in interactions, objects used as manipulators in discussions (Tasbyha²), ethnicity, age, excessive gestures, the role of time, and clothing.

The influence of religion also changes the way the act of deception is conducted, and certain religious precepts such as *Al Takeyya*³, determine the conditions under which a lie is told. This is not an element of novelty, because these ideas are spread in Romanian culture by certain religious personalities, such as Nicolae Steihardt (2008), who supports the principle of "equal weapons" when you are lied to.

Having to deal with an opponent, above all a liar and the son of a father who lies to himself, it is good to always lie, constantly, as an exercise, as a training. The principle of equal weapons requires that in any fight the opponents use the same kind of tools. [...] The principle of equal weapons requires the honest man not to shy away from using unpleasant things when the opponent is not fair. [...] Not to use weapons similar to those

² Afghan beads, used for relaxation.

³ Precept which allows mostly the Shia community members to lie when their life is in danger, and even to renounce Islam, as long as this saves their life and they keep their religion in their heart.

of the enemy under the word of nobility is not proof of superiority, but of stupidity and betrayal of the principles you defend and of the innocent you leave to the robbers (Steinhardt, 2008, pp. 220-221).

Deception detection differences based on gender were not noticed (Burgoon, et al., 2006; Dreber and Johanneson, 2008; Heselton, Buss, Oibaid and Angleitner, 2005). Exceptions were identified in romantic situations when women performed better (McCornak and Parks, 1990), and they also gave a more accurate interpretation of nonverbal cues (DePaulo 2009; Li Li, 2011). The latter aspect is explained by the intense socialisation of women (more freedom to express emotions, a larger number of social contacts and interactions than men, and involvement in parenting activities) (Maccoby, 1990), with consequences in transmitting messages with greater expressiveness. Women have higher expressiveness of nonverbal cues than men (Turchet, 2005), and their engagement in conversation is much more intense (Li, 2011). Age was not a determining factor in the ability to identify deception; however, after the age of 40, the idea has been proposed that deception detection decreases, a possible consequence of a reduced number of social contacts associated with office positions that involve less social interaction (DePaulo, Stone, & Lassiter, 1985). From the perspective of the types of lies told by both sexes, the lies of men were aimed at exacerbating their material or financial condition (and bothered women the most), while women's lies about sexual availability or relationships bothered men the most (DePaulo, 2009). Another difference was that most of the lies told by women were aimed at the benefit of others, while in men the goal was to promote self-image, which is why there is a preference of both sexes to develop conversations with women (DePaulo, 2009).

From a professional perspective, no special category has been identified as extremely skilled in detecting deception, although a few have been proposed, such as the US Secret Service (Ekman, 1985/2009). Training in the domain of identifying deception, together with learning methods to interpret verbal and nonverbal or written cues, and accumulation of experience in interpersonal interactions, all increase the chances of successful identification of deception, regardless of profession. An important finding was the inversely proportional relationship between a person's confidence in identifying deception and their actual ability to do so (Ekman, 1985/2009; Vrij, 1993). This fact, corroborated with Brokaw's hazard, about the uniqueness of each human being, and Othello's error (Ekman, 1985/2009) should remind an investigator of how a person's interview to detect deception can fail if some basic criteria are not met.

Overall, various degrees of suspicion, present in conversational exchanges in the form of casual, formal interview or interrogations, influence deception detection. Among all the contextual factors, the culture, through the patterns of norms and behaviours, frames the interpretation of deception cues and conditions the most their understanding. Additionally, the influence of culture over nonverbal cues and the variances it generates makes deception detection more of a probability than a certainty. Generally, the ability to intertwine contextual factors with real-time behaviour and on-the-spot interpretation reflects the best practice in detection of truthfulness and dishonesty.

4. Conclusions

The identification of deception is a complex process with a scientific basis, but it also has an element of subjectivity, open to the interpretation of the investigator. The corroboration of the deception clues discovered at verbal, written and nonverbal level and their use are not to decide on guilt, but to highlight the points that require further investigation. At the same time, the analysis of deception depends on many contextual factors which, if omitted or misunderstood, increase the risk of simplistic interpretation and lead to labelling people as dishonest. Avoiding these aspects, in conjunction with an awareness of natural tendencies to interpret events based on previous experiences, as well as understanding the limitations of investigative techniques, reduce subjectivity and diminish the likelihood of a miscarriage of justice.

References

- Avola, D., Cinque, L., Foresti, G. L., Pannone, D. (2019). Automatic Deception Detection in RGB videos using Facial Action Units. *ICDSC 2019: Proceedings of the 13th International Conference on Distributed Smart Cameras*, 5, 1-6.
- Adams, H. S. (1996). Statement Analysis: What Do Suspects' Words Really Reveal? *FBI Law Enforcement Bulletin*, 65, 12-20.
- Bond, C. F. Jr., & Robinson, M. (1988). The evolution of deception. *Journal of Nonverbal Behavior*, 12(4), 295-307.
- Bowlby, J. (1980). *Attachment and loss: Vol. 3 Loss*. New York: Basic Books.
- Burgoon, J. K., Buller, D. B., Blair, J. P., & Tilley, P. (2006). Sex differences in presenting and detecting deceptive messages. In D. Canary & K. Dindia (Eds.), *Sex differences and similarities in communication* (pp. 263-280). Mahwah, NJ: Lawrence Erlbaum Associates.
- Burgoon, J. K., Buller, D. B., Ebesu, A., & Rockwell, P. (1994). Interpersonal deception: V. Accuracy in deception detection. *Communication Monographs*, 61(4), 303-325.
- Burgoon, J. K., Buller, D., & Woodall, G. W. (1989/1996). *Nonverbal Communication: The Unspoken Dialogue* (2nd ed.). New York: McGraw-Hill.
- DePaulo, B. (2009). *Behind the Door of Deceit: Understanding the Biggest Liars in Our Lives*. Kindle edition, CreateSpace Independent Publishing Platform.
- DePaulo, B., Stone, J. I., & Lassiter, G. D. (1985). Telling ingratiating lies: Effect of target sex and target attractiveness on verbal and nonverbal deceptive success. *Journal of Personality and Social Psychology*, 48(5), 1191-1203.
- DePaulo, B. M., Kirkendol, S. E., Kachy, D. A., Wyer, M. M., & Epstein, J. (1996). Lying in everyday life. *Journal of Personality and Social Psychology*, 70(5), 979-995.
- Desmond, M. (1967/1991). *Maimuța goală* [The Naked Ape]. Bucharest: Encyclopedic Publishing House.
- Dreber, A., & Johannesson, M. (2008). Gender differences in deception. *Economics Letters*, 99(1), 197-199.
- Ekman, P. (1985). *Telling Lies; Clues to Deceit in the Marketplace, Politics, and Marriage*. New York: W. W. Norton & Company.

- Ekman, P. (2009). *Minciunile adulților. Indici ale înșelătoriei în căsnicie, afaceri și politică* [Telling Lies: Clues to Deceit in the Marketplace, Politics, and Marriage]. Bucharest: Trei.
- Feldman, R. S., Forrest, J. A., Happ, B.R. (2002). Self-presentation and verbal deception: do self-presenters lie more? *Basic and Applied Social Psychology*, 24(2), 163-170.
- Ford, C. V. (1996). *Lies! Lies!! Lies!!!: The Psychology of Deceit*. Arlington, VA: American Psychiatric Press.
- Granhag, P., Strömwall, L., (eds). (2004). *Research on deception detection: Past and present*. Cambridge: Cambridge University Press.
- Hall, E. T. (1959). *The Silent Language*. New York: Fawcett.
- Hall, E. T. (1982). *The hidden dimension*. New York: Anchor Books Editions.
- Haselton, M. G., Buss, D. M., Oubaid, V., & Angleitner, A. (2005). Sex, lies, and strategic interference: The psychology of deception between the sexes. *Personality and Social Psychology Bulletin*, 31(1), 3-23.
- Inbau, F. E., Reid, J. E., Buckley, J. P., & Jayne, B. C. (2005). *Essentials of the Reid technique*. Maryland: John and Bartlett Publishers.
- Izotovas, A., Vrij, A., Hope, L., Strömwall, L. A., Granhag, P. A., Mann, S. (2020). Deception detection in repeated interviews: The effects of immediate type of questioning on the delayed accounts. *Journal of Investigative Psychology and Offender Profiling*, 17(3), 224-237.
- Levine, T. (2014). Active Deception Detection. *Policy Insights from the Behavioral and Brain Sciences*, 1(1), 122-128.
- Li, L. (2011). *Sex Differences in Deception Detection* [Dissertation Thesis]. Retrieved from https://scholarship.miami.edu/discovery/delivery?vid=01UOML_INST:ResearchRepository&repId=12355265610002976#13355527290002976.
- Liang, J., Ruan, Q., Li, H., Ma, M., Yan, W. (2020). Deception detection based on memory-response conflict: A cognitive load approach. *Advances in Psychological Science*, 28(10), 1619-1630.
- Maccoby, E. E. (1990). Gender and relationships: A developmental account. *American Psychologist*, 45(4), 513-520.
- MacLean, P. D. (1952). Some psychiatric implications of physiological studies on frontotemporal portion of limbic system (visceral brain). *Electroencephalography and Clinical Neurophysiology*, 4(4), 407-418.
- Matsumoto, D. (2001). Culture and emotion. In D. Matsumoto (Ed.), *The Handbook of Culture and Psychology* (pp. 171-194). New York: Oxford University Press.
- McClish, M. (2012). *Don't be deceived. The definitive book on detecting deception*. North Carolina: The Marpa Group, Inc.
- McCornack, S. A., Parks, M. R. (1990). What women know that men don't: Sex differences in determining the truth behind deceptive messages. *Journal of Social and Personal Relationships*, 7(1), 107-118.
- Navarro, J., Karlins, M. (2008). *What every body is saying. An Ex-FBI agent's guide to speed-reading people*. New York: HarperCollins Publishers.
- Riggio, E. R., Feldman, S. R., (eds.). (2005). *Applications of Nonverbal Communication*. London: Lawrence Erlbaum Associates.

- Rubin, V. L. (2010). On Deception and Deception Detection: Content Analysis of Computer-Mediated Stated Beliefs. Faculty of Information and Media Studies. London: University of Western Ontario.
- Schafer, R. J. (2010). *Psychological Narrative Analysis: A professional Method to Detect deception in written and oral communication*. Illinois: Charles C. Thomas, LTD.
- Spence, S. A., Hunter, M. D., Farrow, T. F. D., Green, R. D., Leung, D. H., & Hughes, C. J. (2004). A cognitive neurobiological account of deception: Evidence from functional neuroimaging. *Philosophical Transactions of the Royal Society of London*, 359, 1755-1762.
- Steinhardt, N. (2008). *Jurnalul fericitiei* [Happiness Diary]. Iaşi: Polirom.
- Turchet, P., (2005). *Sinergologia. De la limbajul trupului la arta de a citi gândurile celuilalt* [The Secrets of Body Language: An Illustrated Guide to Knowing What People Are Really Thinking and Feeling]. Bucharest: Polirom.
- Vaillant, G. E., Bond, M., Vaillant, C. O. (1986). An empirically validated hierarchy of defense mechanism. *Archive of General Psychiatry*, 43(8), 786-794.
- Verigin, B.L., Meijer, E.H., Bogaard, G., Vrij, A. (2019). Lie prevalence, lie characteristics and strategies of self-reported good liars. *PLoS ONE*, 14(12), 1-16.
- Vrij, A. (1993). Credibility judgments of detectives: The impact of nonverbal behaviour, social skills and physical characteristics on impression formation. *Journal of Social Psychology*, 133(5), 601-611.
- Vrij, A. (2008). *Detecting lies and deceit: Pitfalls and opportunities* (2nd edition). New Jersey: John Wiley & Sons Ltd.
- Wielgopalan, A., Imbir, K. K. (2020). Can Emotional Awareness of Liars Influence Deception Detection Effectiveness?, *Journal of Personality Assessment*, 1-8.
- Zhang, K. Frumkin, L. A., Stedmon, A. and Lawson, G. (2013). Deception in context: coding nonverbal cues, situational variables and risk of detection. *Journal of Police and Criminal Psychology*, 28(2), 150-161.
- Zuckerman, M., DePaulo, B. M., Rosenthal, R. (1981). Verbal and nonverbal communication of deception. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology* (vol. 14, pp. 1–59). San Diego: Academic Press.