



## **A review of the effects of lying and how people deal with this crisis: A review of the best evidence**

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**Abstract**— Health literacy encompasses a wide-ranging concept that has been defined in various manners. It is a crucial aspect of daily life, along with related factors. Deception is a significant factor that can detrimentally impact mental health, warranting attention from therapists in making decisions regarding diagnosis and treatment amidst physical and mental distress caused by dishonesty and deceit. Deception and hypocrisy represent a prevalent global crisis. Given the substantial impact of this issue and its management on various aspects of life, it is beneficial to assess clients' health literacy levels to enhance their well-being prior to conducting any research. This study's methodology aims to examine global research literature on lying and hypocrisy and their effects on individuals' health. The review article critically evaluates the best evidence in response to the question of how to analyze deception. The topic was explored in international scientific databases, and all relevant English articles were compiled. Subsequently, article abstracts were scrutinized, and redundant and irrelevant items were eliminated through multiple stages, resulting in the selection of final articles for comprehensive review and data extraction. The issue of health literacy, based on articles pertaining to the prevention of lies and hypocrisy and symptom management, was found to be impactful. The collective findings of these studies were then reviewed and synthesized.

**Keywords:** lies and hypocrisy, mental health, best evidence review

## 1. Introduction

In today's society, preventable lifestyle factors such as smoking, poor dietary choices, and sedentary behavior are significant contributors to mortality. Consequently, the provision of health education to all individuals, regardless of their health status, is a crucial focus of health initiatives and a fundamental responsibility of healthcare professionals. The rising prevalence of chronic illnesses and the imperative to enhance the well-being and longevity of affected individuals have underscored the necessity for educational interventions. The emerging concept of health literacy has further bolstered the legitimacy of such interventions in recent years. At first glance, health literacy can only rely on a person's physical health. While the most important part of a person's health is the mental health of people, which in its own way can include all the principles and situations of life. Unethical behaviors such as dishonesty, fraud and corruption often occur in organizations or groups. Recent empirical evidence suggests that there is a stronger tendency to behave unethically in groups than in individuals. We ask if this is so and if so, why? Using a simple laboratory set, we study how individual behavior changes when making decisions as a group member.[1] In general, people want to behave ethically. In some cases, temptation leads them away from moral behavior. In other cases, purely moral behavior is not possible because the same behavior has both moral and immoral consequences. For example, cooperating with others may require people to be dishonest. We suggest that in order to justify their choices in such cases, people engage in a moral calculation in which they consider moral values and behaviors as moral currencies that can be exchanged for each other.[2] Over the past decade, a large and growing body of empirical research has analyzed dishonest behavior. However, the findings related to when people engage in (dis)honest behavior are somewhat unclear and even contradictory. Therefore, a systematic analysis of factors related to dishonest behavior seems desirable. This meta-analysis examines four of the most widely used experimental paradigms: sender-receiver games, rotation tasks, coin-flipping tasks, and matrix tasks. We pool data from 565 experiments (a total of  $N = 44,050$  choices) to address many of the ongoing debates about who behaves dishonestly and under what circumstances. Our findings show that dishonest behavior depends on both situational factors, such as the amount of reward and external factors, and personal factors, such as gender and age of the participant.[3] Although dishonesty is often a social phenomenon, it is primarily studied in individual settings. However, people often cooperate and engage in dishonest interactions. We report the first meta-analysis on participatory dishonesty analyzing 87,771 decisions (21 behavioral tasks;  $k = 123$ ;  $n = 10,923$  participants). We present an overview of all tasks used to measure collaborative dishonesty, and conduct moderation analyses.[4] Does society influence innate moral values? In this issue, Gächter and Schulz (page 496) address this question with an experiment involving 2,568 participants in 23 countries. The authors show that the prevalence of law violations in a country, which for this study includes tax evasion, corruption, and political fraud.[5] We examine whether changes in the perceived norm of dishonesty can offset the effects of changes in payoffs from dishonest action. We find partial support for this hypothesis in laboratory experiments on lying behavior in a low-cost receiver-transmitter game, conducted in two countries. In experiments, we exploit lying and alter the sender's perception of the norm by providing information about lying from previous sessions. Findings show that senders adjust their perceived norm as expected, but they respond to the norm in a somewhat selfish manner. Specifically, when the payoff from lying is reduced, but senders believe in a higher norm of lying, they lie significantly more than when the norm is not interfered with. However, when the payoff from lying increases, our intervention to shift the perceived norm of lying downward succeeds in changing senders' beliefs as intended, but does not significantly reduce lying. [6] We explore the utility of the dice game paradigm for public management as a standard method for measuring (lack of) honesty among individuals, groups, and societies. The measures of dishonesty are key to the progress of the field in understanding individual, organizational and social differences in unethical behavior and corruption. We first describe the dice game paradigm and its benefits, and then discuss a range of considerations for how to implement it.[7] Corruption is often the product of coordinated rule violations. Here, we examine how such corrupt cooperation emerges and spreads when people can choose their partners versus when they cannot. Participants were assigned a partner and could increase their profits by lying in concert. After several interactions, they were either free to stay with or switch partners or forced to stay with or switch partners. The results show that dishonest and honest people abuse the freedom to choose a life partner. Dishonest people look for a partner to lie to - a "partner in crime".[8] Students in India who cheat in a simple lab work are more likely to prefer public sector jobs. This paper shows that cheating in this task predicts the corrupt behavior of civil servants, which means that it is a meaningful predictor of future corruption. Students who show prosocial preferences are less likely to prefer government jobs, while results of an overt game and attitudinal measures to

measure corruption do not systematically predict career preferences.[9] People are social animals. Much of our good and bad behavior happens in groups. A recent study by Weisel and Shalvi suggests that “participatory settings lead individuals to engage in excessive misconduct” (2015, p. 10655). The effects are large and raise concerns about harmful real-life consequences. Here, we report two pre-registered studies that replicated the original findings, but with smaller effect sizes. Furthermore, our findings show that context moderates corruption in cooperation.[10] To protect and promote the welfare of others, humans may bend the truth and behave immorally. Here we link such tendencies to oxytocin, a neuropeptide known to promote dependence and cooperation with others. Using a simple coin toss prediction task in which participants could dishonestly report their performance levels to favor their group's outcome, we tested the prediction that oxytocin would increase dishonesty in group service. A double-blind, placebo-controlled trial that allowed subjects to lie privately and anonymously to benefit themselves and other group members found that healthy men (n=60) given intranasal oxytocin, rather than a placebo, Most lie to benefit their group and they did it. faster, but they did not necessarily do so because they expected mutual dishonesty from group members.[11] Trustworthiness is the foundation of well-functioning relationships and societies and is therefore often perceived as socially normative behavior. Likewise, a large body of research has shown that people tend to act in a trustworthy manner and demonstrate their trustworthiness to others, and trust is rewarded. Here, we examine whether this incentive for trustworthy behavior can have adverse social effects in terms of leading to dishonesty aimed at meeting the trustor's expectations (i.e., trustworthy dishonesty).[12] By studying different decision structures—simultaneous versus sequential—in empirical coordination games, we contribute to the pressing question of how organizational design affects firm misperformance. Participants can report private information truthfully, or lie to increase their profits as well as the group's. In simultaneous decision-making structures, all members of the group report simultaneously, without knowing the reports of others, while in sequential decision-making structures, there is a first mover who decides first.[13] When a person believes that peers mostly lie in a given situation, is he or she more likely to lie in that situation? We study this question in deception experiments modeled after Gneezy [Gneezy U. "Deception: The Role of Consequences". American Economic Review, 95, 2005, 384-94] and was done in Arizona, California and India.[14] Are country-level differences in corruption related to the level of dishonesty of people in entering government services? Recent studies have shown that dishonest people choose themselves for public service in corrupt environments. However, little is known about what drives this pattern and whether a similar pattern exists in low-corruption environments. This article examines selection for public services in the world's least corrupt country, Denmark. We subject a relevant student population to a standardized experimental dishonesty task and develop a new method for estimating individual-level dishonesty from empirical data. We then relate dishonesty estimates to subjects' job preferences and characteristics.[15] Over the past decade, extensive research has been devoted to the discovery of human fallibility. In this article, we review more than one hundred articles from this literature and provide a comprehensive review by listing existing theoretical frameworks, and then covering common empirical approaches, combining demographic and personal characteristics of cheaters, identifying behavioral patterns. do. Mechanisms that influence dishonesty are found, and we conclude with a discussion of how empirical evidence fits with theory.[16] The authors use a psychoanalytic perspective to understand observations about self-deceptive practices that operate in physicians who have been dishonest or engaged in other violations of ethical guidelines. They emphasize that it is incorrect to classify doctors simply as honest or dishonest, ethical or unethical. Physicians who have been ethical practitioners may rationalize sexual relations with patients, theft from professional coffers, lying, or other transgressions while convincing themselves that they have acted in an honorable manner.[17] This paper argues that standard economic accounts of corruption based on expected costs and benefits are insufficient to understand and deal with dishonesty in the real world. reviews the literature to discuss the main roles of automatic judgments and decisions, as well as cognitive biases and social preferences in deviating from honest behavior.[18]

## 2. Methods

The current investigation is a literature review that involved the retrieval of scholarly articles from various databases including SID, Google Scholar, MSRT, Scopus, Elsevier, Springer, and PubMed, spanning from 1772 to the conclusion of 2021. The researchers systematically conducted searches and retrieved pertinent English-language articles from reputable electronic sources using predetermined keywords. Subsequently, the researchers

categorized the extracted data by thoroughly analyzing the full texts of the articles. The selection process involved scrutinizing the relevance of the articles to the research title and topic, eliminating irrelevant and duplicate entries. Following this, the remaining articles underwent a comprehensive review, with irrelevant ones being excluded, and the results of the selected articles were then organized and analyzed in the final phase.

### 3. Ensembles

New health systems have created new needs in their audience, and people must take on new roles to make the right decisions about themselves and their families. In this context, one of the most effective factors is health or mental health. Mental health has now been introduced as a global issue and debate, and due to its important role in how people make decisions in health-related fields, it is one of the basic tools to improve the level of community health and improve the quality of health care services. It has been noticed by policy makers.

### 4. Papers

#### 4.1. Paper1

[19] In some experiments, after answering the questionnaire, one or two dollars were presented to the questionnaire candidate for their time. Fischbacher had told his candidates to go to a room and throw dice, and after coming out, report what number they got and get francs according to the number they got, that is, if someone got two, they got two francs, if Someone had brought 4 and got four francs, but said that the number 6 has no prize. When this Swiss economist put several hundred people in this questionnaire and made a graph of their answers and the rewards they received, the graph was like this.

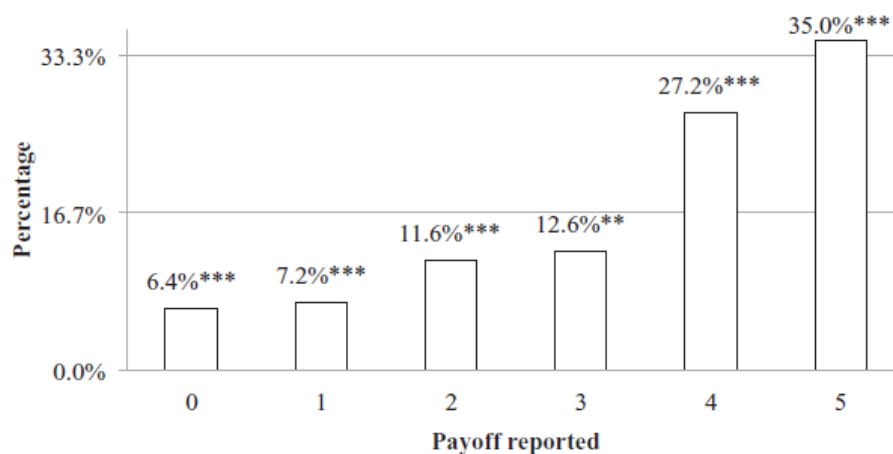


Figure 1

We know that the probability of each dice coming up is 16.7%. That is, a statistical violation of 16.7% can indicate lies, fraud and inaccuracies. In the second series of experiments, all the rewards were multiplied by 3, the willingness of the participants to lie and announce wrong numbers to have more rewards should also be increased. But the interesting point in the statistics of the second experiment was that the pattern of cheating had not changed much, and this is one of the most ethical points in the discussion of cheating and wrongdoing. That is, it is not necessarily the high amount of rewards that prompts a person to lie. Since the candidates and participants of this questionnaire believed that the fee given to them for the person they bring comes from the budget of the University of Economics and the University of Economics definitely has large budgets for this matter, they probably lied with an easier conscience. As a result, he designed the questionnaire and the next test in such a way that you are rewarded for the amount of dice you bring and the rest of the money is given to your colleague. That is, if you report the number 1, you will be given one franc, and 5 francs to your friend, and if you report the number 4, you will be given 4 francs, and two francs to your friend, and if you report the number 5, you will be given 5 francs. It is given and a franc to your friend. The purpose of this experiment and the design of the sample question in groups and rewarding two people for each dice was to see how the pattern of cheating

changes when our conscience is involved in relation to our friend and colleague. As can be seen in the table, in the externality section, the statistics indicate that the pattern of fraud has not changed so much, this could mean that fraud in the human mind is so complex that it cannot be measured and changed with such factors, but the contents and explored much deeper factors in it.

TABLE 1. Summary of all treatments.

	Fisher exact test (FE) <sup>a</sup> or signed rank test (WSR) <sup>b</sup>	Share of subjects (in percent) who reported corresponding payoff; one-sided binomial tests that it is smaller (larger) than 100%/6. *(+) = 10%-level, ** (++) = 5%-level, *** (+++) = 1%-level					
		0	1	2	3	4	5
<b>(a) Baseline</b>							
baseline (n = 389)		6.43***	7.20**	11.57***	12.60**	27.25+++	34.96+++
<b>(b) High-stake sessions</b>	FE 0.100						
baseline (n = 79)		2.53***	10.13*	15.19	15.19	17.72	39.24+++
high stake (n = 80)		11.25	5.00***	15.00	8.75**	27.50+++	32.50+++
<b>(c) 4,9 sessions</b>	FE 0.518						
baseline (n = 128)		7.03***	4.69***	9.38**	12.50	24.22++	42.19+++
4,9 (n = 125)		8.00***	5.60***	14.40	10.40**	29.60+++	32.00+++
<b>(d) Externality sessions</b>	FE 0.344						
baseline (n = 80)		8.75**	7.50**	7.50**	8.75**	40.00+++	27.50++
externality (n = 78)		8.97**	12.82	8.97**	16.67	25.64++	26.92++
<b>(e) Double anonymous sessions</b>	FE 0.969						
baseline (n = 140)		5.71***	8.57***	10.71**	17.14	28.57+++	29.29+++
double anonymous (n = 137)		6.57***	8.76***	10.22**	17.52	24.09++	32.85+++
<b>(f) No die session</b>							
no die (n = 34)		0.00***	2.94**	0.00***	0.00***	11.76	85.29+++
<b>(g) Repetition</b>	WSR 0.000						
first participation (n = 111)		11.71*	9.91**	13.51	12.61	20.72	31.53+++
second participation (n = 111)		4.50***	3.60***	5.41***	9.01**	25.23++	52.25+++
<b>(h) Repetition: report in second participation</b>	FE 0.171						
first report 0-3 (n = 53)		3.77***	5.66**	9.43	15.09	28.30+++	37.74+++
first report 4 (n = 23)		4.35*	4.35*	0.00*	4.35*	21.74	65.22+++
first report 5 (n = 35)		5.71*	0.00**	2.86**	2.86**	22.86	65.71+++
<b>(i) Repetition: report in first participation</b>	FE 0.075						
second report 0-3 (n = 25)		12.00	20.00	28.00	12.00	12.00	16.00
second report 4 (n = 28)		14.29	3.57**	14.29	21.43	17.86	28.57+++
second report 5 (n = 57)		10.34	8.62*	6.90**	8.62*	25.86+++	39.66+++

TABLE 1. Continued

	Average belief (in percent) about reporting corresponding payoff; signed rank test that belief differs from 100%/6. *10%-level, **5%-level, ***1%-level					
<b>(j) Belief treatment</b>						
inexperienced (n = 41)	9.34***	13.88**	14.78	17.00	16.80	28.20
experienced (n = 19)	3.84***	5.74***	8.21**	12.05**	22.58**	47.58***

<sup>a</sup>Reports the p-value of a Fisher exact test comparing the distributions of payoffs reported in the two treatment groups.

<sup>b</sup>Reports the p-value of a Wilcoxon signed rank test that in both participations the same number is reported.

Figure 2

Since it was possible that some of the participants in the questionnaire did not report the number 5, which is the most rewarding, because they feel that when they come out and report 5, they will be unconsciously called liars and profit seekers, as a result of the experiment Next, it was designed in such a way that people went to a room to throw dice and did not report the number of dice, but instead took the money in the drawer, took the money equal to the dice they brought, and left the rest of the money and dice there and left. If the reason why many people reported the number 4 instead of 5 was because they were embarrassed by the questioner and thought they might be known as liars, the distribution statistics should have changed significantly in this experiment. In other words, if the reason why many people reported the number 4 instead of 5 was because they were embarrassed by the questioner and thought they might be accused of lying, this question would be solved in this questionnaire. But the interesting thing is that 24% of the number 4 is still reported, which is a high number compared to 16.7%, which means that many people falsely and incorrectly reported the number 4 instead of the number 5. It was possible that because the reward amount is not that significant, the participants do not need this



money and therefore do not report high numbers to get more money. The last test that Fish Bacher did in this article was that he used 111 participants and again asked them to do this move, roll the dice, and receive money for the dice they roll. In this way, each of these participants rolled the dice twice and received money in two different parts, and it was proved to them that if they say any number in the first time, they will receive their money without being judged. A lie does not accuse. In the graph, we can see that the people who reported the number 4 and 5 fraudulently increased significantly, but the people who reported 4 still account for a large percentage in the table, which means that although more people are cheating but all of them do not report the number 5 the second time and still report the number 4 fraudulently. Obviously, 80% of people are cheating the second time. Factors such as not having mercy on one's own kind, torment of conscience, fear of being accused of lying, none of them significantly changed the table of fraud. People used to cheat, but a large number of people disguised their lies and frauds as honesty and pretended to be honest and reported 4 instead of 5 and ended the game with two wins for themselves. They had taken more money and called themselves honest and conscientious people. Even when there was no one to see how much they had taken, they lied to themselves and in their subconscious they reduced the torment of their conscience by reporting four instead of five. At the end, Fishbacher conducted another test and asked people who had never participated in this test, what number do you think they would report if we took other people in this questionnaire? In this graph, we see the answers of people who believed that other people would answer like this, and then they asked the people who had done this test once, what number would others probably announce? They have answered that probably the people who brought the number 6 because they don't get any reward or who brought one or two because their reward is very little will announce the numbers 4 and 5 and we see that even when we ask people how it is possible for others to do this Answer the story and report a number in this test. The number 4 and 5 are still among the numbers that are likely to be announced by other people.

That is, we can see that even those who have participated in this game and people who have not participated in this game know that possibly people with a partial win and an incomplete lie may also cheat, and all people necessarily cheat completely and make the most of cheating and situations. They don't do it themselves. Hoping that they will get more rewards and be called honest and upright people. On the other hand, the interesting point in this second questionnaire was that people who had not played this game themselves and commented on other people's games felt that most people were honest and did not cheat, except for the low percentage of people who gave a 1 or 6, which They don't earn much, while people who had already done the experiment and commented on other people's games believed that more people were likely to report 4's and 5's and could cheat, and they thought people were less honest than Since they themselves knew that they might have cheated in this test or their hands were open to cheat without being caught or called liars. One of the most important achievements of Fischbacher's article was that we can see that people who were in a situation of cheating, later believed that other people can also cheat and because they had the experience of cheating or were in a situation where cheating could be tracked. They had not.

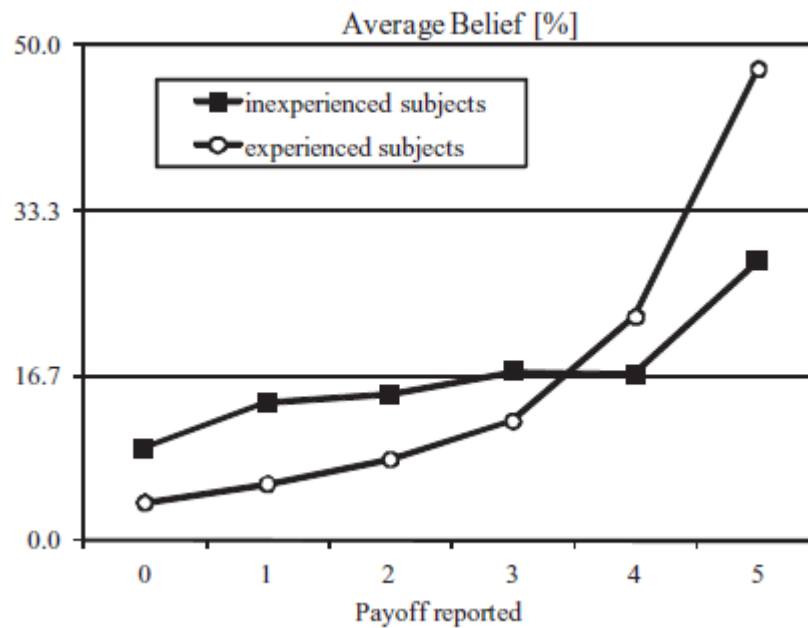


Figure 3

In other words, when someone is given the opportunity to cheat, that moment she understands why other people cheat, why other people embezzle, and why other people can easily be hypocrites.

#### 4.2. Paper2

[20] The title of the article, moral hypocrisy, itself means that when people do not have a series of moral characteristics, and yes, they are among these moral characteristics, they try to identify themselves with such characteristics to others and show that they are the owner of the character and adhere to their principles. As we said, in many studies that aim to check the level of honesty or dishonesty of a person, the intention of the questionnaire and test is not told to the candidates from the beginning. We are on emotions. However, we know that the researchers wanted to check the level of honesty during the test and when the candidates were doing these tasks and doing these tasks and to see how much they were cheating. The candidates of this test were told that you play this game at the same time with one of your friends or colleagues and the test consists of two parts and they need two people to do the work. A lottery is given, which may give a reward of up to 30 dollars, and the second person has to go to the classroom and appear there, and they will check his intelligence and learning. Although in reality there was no second person involved, the candidate thought that someone else was doing this with him. We can see that the first test was a test on positive excitement, which was very exciting and interesting for the candidates. The first game was such that the candidates entered a game and after finishing it, they were given lottery tickets that could reward them up to 30 dollars, as a result, the candidates experienced excitement in the first game. They did and earned some money. While in the second experiment, there was no reward and fetching was also boring. As a result, it is very logical that people are more inclined to do the first test by themselves and the second test to be done by their friend and colleague, and we know that in the test the second person was not involved, but the candidate was simply told which activity to choose. You do it and your friend has to do the rest. And finally, the candidate was asked which task you want to do and which activity to leave to your friends. Do you want to do the first exciting activity or enter the classroom? When people were asked what they would choose to do, 80 percent chose exciting activities that could reward them with up to \$30. Then people asked how ethical was the choice you made, that is, that you do the exciting work and your friends do the boring work and get no reward? Five percent answered that their work is ethical. That is, 95% of people agreed that yes, it was not ethical for us to leave boring and unrewarding work to our friend, but since we didn't feel like doing this work, we chose good work for ourselves and then graded their own work ethically. 1 in the sense of very

unethical work and not in the sense of highly ethical work, the average score they gave themselves was 4.3. They did another experiment, but this time they were told that you can toss a coin to choose whether to do the work yourself or a friend to do the work, and tap and draw, the coin stays on your side, and you simply announce the result, and someone else It does not check you. We know that it is not more than 50% if you do the good work yourself or a friend does it, and a statistical violation of the number 50 certainly indicates fraud. In this experiment, 90% of people declared that according to the milk or line they brought, they should do the exciting and rewarding work and their friend should do the boring work without reward. We can see that the number 90 has exceeded the number 50 and at least 40% of people have done the right thing with their fraud and inaccuracy. be. Again, people who chose exciting jobs were asked whether their work was ethical or not. And they are asked to rate their work from one to nine. The score they gave themselves was 7.3 and because they felt that they could pretend that the decision was based on a coin and that they made this choice by chance, their work is considered ethical and we know that with this statistical violation, more people have definitely cheated. The result of this test and questionnaire for Watson was that people who do unethical work lie and cheat and hypocrisy, they know that their work is unethical and they do not give their work a full moral grade, but as soon as they have a reason to get rid of have a guilty conscience, they even think their work is more ethical even though they have cheated again. If they have a proof such as the effect of luck in choosing and they can use it as a shield for their own morals, they will cheat more and have less guilt, and they will magnify their cheating and claim that they are more moral people, which is the real definition of hypocrisy and deception. Is. These kinds of unethical actions in everyday life are materialized and made to appear moral with expressions such as the council's decision was like this, the bylaws follow the religion of the state, or it was luck.

After two years in 1999, another thing that this researcher achieved was that he conducted the same experiment in a room where people, when they threw a dice or when they tossed a coin, decided which to do themselves and what to do. Leave the work to their friend. He had installed a large mirror so that he could see his side. After the test was performed in front of a mirror where the candidate could see himself, the statistics tended to be more accurate and very close to 50%. The result of this researcher's secondary experiment was that when people see their image in the mirror, they are likely to remember who they are, they don't need to lie, they don't need such a small reward, and they may even start asking themselves moral questions like, is family Did he raise you to lie? Is cheating moral for you, etc., which results in the desire to tell the truth and avoid lies in people?

#### 4.3. Paper3

[21] In previous questionnaires and experiments, we saw that when people were given dice and told that they were going to be rewarded according to the amount of dice they rolled, these people reported higher numbers that they could receive more rewards, and this is evidence. There were people who had a desire not to cheat completely and not report the numbers with the highest score in order to prove to themselves and others that they are moral people and to be able to reduce their conscience. This time in 2015, a new experiment was created with a very creative initiative. The experiment was such that when people completed the questionnaire and entered the test, two people did this work and two candidates were used in each experiment. Candidates were told that they would each be given a dice, they would both roll the dice and report the number themselves, but they would only be rewarded if they both rolled the same number. As the saying goes, the dice have come together. That is, if one of the candidates brought two and the other three, they were not given any reward, but if both of them brought the number one, they were given two francs, and if each of them brought 5, the so-called pair of 5 was brought to Each was given 5 francs, a total of 10 francs. The experiment was such that each of them threw the dice in order, in the sense that first the first person threw the dice and announced his number, and then the second person was asked to throw the head and announce the number himself without anyone Check the dice. In this experiment, the people who have been rewarded must definitely have mated. We definitely know that the probability of each pair coming on the dice is one thirty-sixth, and we know that the statistical probability of getting a pair by two dice is one-sixth or 16.7%. that the pair of six will bring the highest reward and the pair of one will bring the lowest reward. After conducting this test on a number of candidates, the statistical table was reported as follows, which means that the most focus on pair 4, pair 5 and pair 6 was actually on heavy pairs. We definitely know that this is statistically impossible. And it indicates that the candidates have cheated.



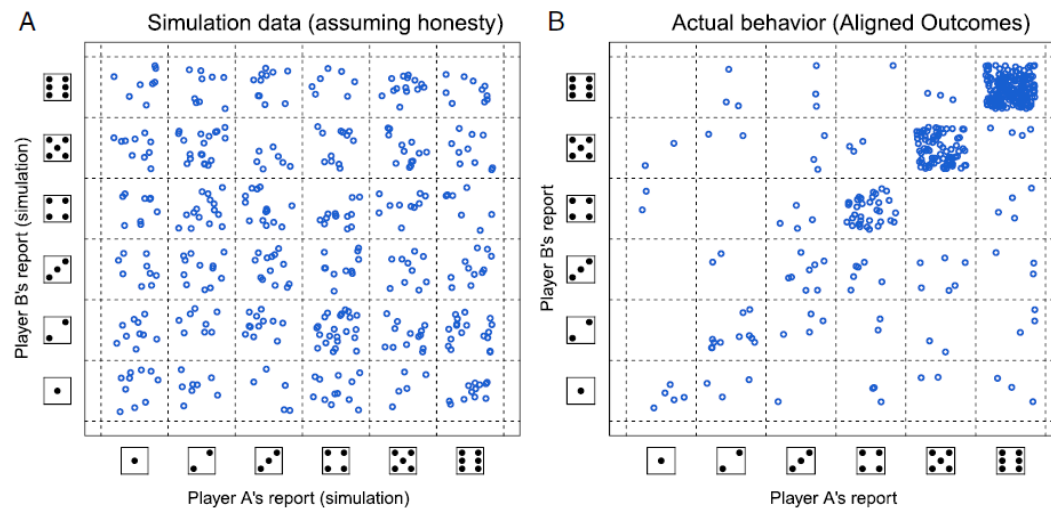


Figure 4

According to these data and the fact that the highest numbers were pairs of 4, pair of 5 and pair of 6, we conclude that in the first stage player number one who reported his dice number cheated and the number was 4 or 5 or reported 6, and in the second stage, player number 2 often cheated in this game and reported the same numbers. On a series of candidates, this test was performed 20 times, and about half of the candidates declared that they got pairs each time. In fact, the probability that you can get pairs 20 times in a row is one-sixth to the power of twenty. According to the statistics of the announced numbers and comparing them with the real probabilities, they have come to the conclusion that humans may lie when throwing dice individually to get a higher reward, and it is possible to report incorrect numbers, but when they do this in pairs and both of them are sure that the other will be the foundation of their lie. The statistics have increased greatly and even reached the point where, out of a large number of people, in fact, about half of the candidates declare that they even brought a pair 20 times. And in lying and cheating, they become more ruthless and ruthless. With the statistical analysis of the reported numbers, they have come to the conclusion that the people of group 1, i.e. the people who roll the dice first when they take a risk and report a high number, and to their surprise, they see that their group mates also get the same high number in order to get a reward for both of them. reports, the next time they do the same test, they report higher numbers much more unabashedly. It's as if they came up with a plan without prior coordination to get a big reward. A very important point that can be taken from this report and experiment is that lying, cheating and untruth are reflected in each other like opposite mirrors and when people are together and can work with each other in a team even indirectly and communicate. These wrong numbers and wrong reports come out with much higher statistics. One of the most important points in this article was that this article and this experiment were done in Germany and in England. They even conducted this experiment among different groups. For example, the first time they did it among economics students and the second time among psychology students and behavioral science students, and they saw that the statistics and numbers reported in team cheating were always much higher. This article proves one of the stereotypes of fathers and mothers and parents who always admit that their children are moral and ethical people and they are stuck with bad friends and comrades and because of this they are drawn to the opposite. Another very negative point that can be obtained from the analysis of these statistics is that the stronger and stronger the relationship between people in these hypocritical and deceitful groups and the more they trust each other, the higher the unreal reported numbers. This means that the tension of correlation in these groups causes an increase in immoral affairs and leads to corruption in the Sheriff.

#### 4.4. Paper4

[22] The basis of this experiment was whether people's personality changes by buying fake and non-original accessories, clothes and accessories. From that point of view, I believe that this experiment and this research is not applicable in our country, that the railways in Iran buy fake equipment, it does not mean that they show

themselves as a different personality, or to show a stronger and richer person, but often to buy equipment. Non-original in our beloved country is because of unfair prices or because our dear people do not have access to these items. In foreign countries, where even using fake and non-original accessories with today's world brands can even be an unethical and illegal act, it means that the people who do this and the accessories and accessories Non-original clothes with well-known and very expensive brands are used to pretend to be someone they are not. This research was done in such a way that the candidates were divided into two groups and each of them was given an original pair of Chloe glasses, but the first group was told that your glasses are completely original and you can use them for a while. and later they were given a test while the second group was told that these glasses are not original and are fake Chloe, and they were also asked to use these glasses for a while and then answer a questionnaire. These two pictures that we can see below were shown to both groups, we can see that in the first picture, the distribution of black versions on the screen in the left and right triangles is not equal, and with a small glance, you can understand in which part there are more dots. While in the second photo, since the photo is shown to the candidates at a high speed, it is not at all clear which triangle, left or right, has more dots, they were asked to say whether the number of dots in the left triangle is they see more or the right triangle and they were told that if they press the right number button they will be given one dollar and if they press the left button they will be given ten cents. And they actually wanted to know which group cheated more in order to get more rewards.

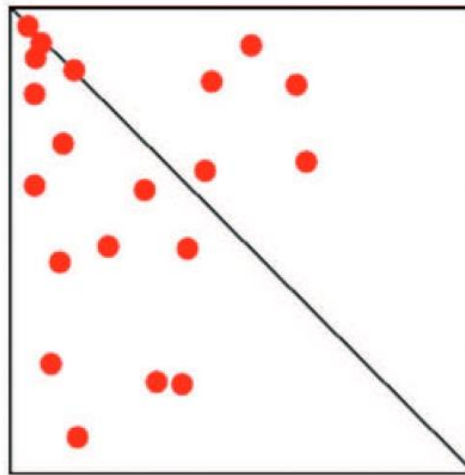


Figure 5

On the other hand, the researchers announced that both groups were given original glasses, but the second group was only told verbally that your glasses are not original, and later they were asked in the questionnaire, how much do you think your glasses are worth? We see that when the first group is given the questionnaire, they report prices ranging from \$116 to \$210, while the second group reports glasses worth \$31 to \$67. When we look at the graph reported by Group 1, we see that most of them did not cheat, while those in Group 2 were candidates who were told that your glasses were fake and not original, often to get They had cheated more rewards. On the other hand, another achievement of Ms. Gino was that she came up with interesting and new information about Humbleberging or humble or grandiose self-praise. Humble self-praise means that people complain and express their content in this way, for example, a person who has a big house and wants to have a big house says, Oh, a big house is a lot of trouble to maintain. A big house is very difficult and even cleaning it has side costs for us, in fact, by complaining and glorying about this issue, he wants to cook and praise himself with the same issue. Or, for example, we see someone who says that driving expensive and sports cars is very difficult and one is afraid to park his car anywhere. Or, for example, many people say that flying in business class and first class is very boring because there are always a few people sitting next to them and they don't talk and they get bored. In short, the achievement of this article was that when you show something that you are not and try to show yourself to be better than that thing and more moral than what you are, this false immorality spreads in your other works as well, the achievements of Ms. Francesco realized that people who show their passion are often more successful people, although he believes that it may be a two-way street, meaning that

those who are more honest become more successful, or people who are more successful. The trend is that more successful people don't need to lie and hypocrisy and will often be more honest people. Also, he asked brands like Giorgio Armani and Prada what kind of clothes are worn by the people who spend the most money in your stores. Often, the customers who made the most purchases from these shops with very expensive items were people with ordinary linens and simple dresses and leggings, which shows that they did not need to show themselves successful, and at the same time, people with clothes They have entered the store very glamorous, they haven't made that many purchases, we can conclude that people who show their true selves and don't need an image and don't need pendants like flashy clothes and expensive accessories. Those who show themselves and show off are often more real and successful people, as a result, they can allocate large budgets for their clothes, so they are more real customers.

#### 4.5. Paper5

[23] In this research, in order to verify the candidates and answer these questions, the same very simple way of throwing dice and announcing the number and giving rewards was used, just like the previous tests, the candidates were told that you will be rewarded according to the number of dice you roll, if If you get one, you get one dollar, and if you get two, you get two dollars, and if you get six, you get six dollars. The test is such that the candidate is given a disposable glass with a hole in the bottom and a dice is given to him so that he puts the dice in the glass and spins the dice, puts the glass upside down on it and counts the number from the hole. look and must immediately announce the number he has brought and get his reward. In this test, the candidates are divided into two groups, the first group of people who had to do the whole process in eight seconds and announce the number, otherwise they would not be rewarded, and the second group who had no time limit. In fact, with this, they wanted to see whether people who are in a time crunch lie and cheat more or when their time is not limited and they can think and solve the problem in their mind. And from the answer to this question, it can be understood whether the foundation of our mind is deception and fraud or if we are honest and truthful. The answer to this question is so important that it can even be related to human instinct, whether human instinct needs time to think about the consequences of lying and cheating over the years of evolution, or whether it feels by default that honesty and truthfulness are the way forward. Life issues. And if we put people in a time stamp, are they honest or do they lie? According to the statistical analysis of the graph below, people in both groups cheated, but those who did not have a time limit, their numbers were closer to the real statistics, and those who were in the time limit reported mostly numbers 4 to 6. In fact, it means that people who were under the time stamp and had a short time or less than eight seconds to declare themselves that they cheated more and lied more. In fact, by analyzing the graph, we can find out that people who were under a time limit cheated 20% more than people who did not have a time limit. In fact, when people are faced with the problem of time limitation, in other words, they are shocked or surprised, they tend to lie more, it can mean that the basic state of mind is based on disadvantages and lies and honesty are tools to achieve benefits. The use of time in these cases is dependent on the material or metaphysical interest, which is more inclined towards the material interest, and time will help a person to choose the most legitimate and reasonable interest. In order to be honest and tell the truth, people need time to be able to think about morality and the consequences of lying, and as a result, if they are given enough time to think, they behave more honestly. In fact, under time pressure, people like to say something that will benefit them more, get more rewards, if they are given time, they think about the consequences of that move and are more honest.

### 5. Result

Deception can be viewed as a survival tactic that has developed over time. In an evolutionary context, individuals may engage in deceit or falsehoods to safeguard themselves or gain an edge in a competitive environment. Humans frequently employ deception to uphold their personal interests and advantages, whether in professional settings, interpersonal relationships, or other spheres of life. This may involve embellishing achievements on a resume, withholding information to evade repercussions, or misleading others for personal gain. The inclination to deceive for individual benefit is a prevalent aspect of human conduct. When individuals collaborate in deception, they often do so to safeguard each other's interests or present a unified front. This can occur in various scenarios, such as in a professional environment where colleagues may work together to conceal an error, or in social settings where friends may fabricate a narrative to protect someone's reputation.

Collaborative deception can foster a sense of camaraderie and unity among individuals, but it also perpetuates a cycle of dishonesty that can ultimately result in adverse consequences for all involved. While it may appear advantageous in the short term, the long-term ramifications of participating in collaborative deception can undermine trust and integrity within relationships and communities.

## 6. References

- [1] Kocher MG, Schudy S, Spantig L. I lie? We lie! Why? Experimental evidence on a dishonesty shift in groups. *Management Science*. 2018 Sep;64(9):3995-4008.
- [2] Weisel O, Shalvi S. Moral currencies: Explaining corrupt collaboration. *Current opinion in psychology*. 2022 Apr 1;44:270-4.
- [3] Gerlach P, Teodorescu K, Hertwig R. The truth about lies: A meta-analysis on dishonest behavior. *Psychological bulletin*. 2019 Jan;145(1):1.
- [4] Leib M, Köbis N, Soraperra I, Weisel O, Shalvi S. Collaborative dishonesty: A meta-analytic review. *Psychological Bulletin*. 2021 Dec;147(12):1241.
- [5] Shalvi S. Corruption corrupts. *Nature*. 2016 Mar 24;531(7595):456-7.
- [6] Mitra A, Shahriar Q. Why is dishonesty difficult to mitigate? The interaction between descriptive norm and monetary incentive. *Journal of Economic Psychology*. 2020 Oct 1;80:102292.
- [7] Olsen AL, Hjorth F, Harmon N, Barfort S. Behavioral dishonesty in the public sector. *Journal of Public Administration Research and Theory*. 2019 Oct 17;29(4):572-90.
- [8] Gross J, Leib M, Offerman T, Shalvi S. Ethical free riding: When honest people find dishonest partners. *Psychological science*. 2018 Dec;29(12):1956-68.
- [9] Hanna R, Wang SY. Dishonesty and selection into public service: Evidence from India. *American Economic Journal: Economic Policy*. 2017 Aug 1;9(3):262-90.
- [10] Wouda J, Bijlstra G, Frankenhuys WE, Wigboldus DH. The collaborative roots of corruption? A replication of Weisel & Shalvi (2015).
- [11] Shalvi S, De Dreu CK. Oxytocin promotes group-serving dishonesty. *Proceedings of the National Academy of Sciences*. 2014 Apr 15;111(15):5503-7.
- [12] Ścigała KA, Schild C, Zettler I. Dishonesty as a signal of trustworthiness: Honesty-Humility and trustworthy dishonesty. *Royal Society Open Science*. 2020 Oct 28;7(10):200685.
- [13] Rilke RM, Danilov A, Weisel O, Shalvi S, Irlenbusch B. When leading by example leads to less corrupt collaboration. *Journal of Economic Behavior & Organization*. 2021 Aug 1;188:288-306.
- [14] Robert I, Arnab M. Is dishonesty contagious?. *Economic Inquiry*. 2013 Jan;51(1):722-34.
- [15] Barfort S, Harmon NA, Hjorth FG, Olsen AL. Dishonesty and Selection into Public Service in Denmark: Who Runs the World's Least Corrupt Public Sector?. Available at SSRN 2664983. 2015 Sep 4.
- [16] Jacobsen C, Fosgaard TR, Pascual-Ezama D. Why do we lie? A practical guide to the dishonesty literature. *Journal of Economic Surveys*. 2018 Apr;32(2):357-87.
- [17] Gabbard GO, Hobday GS. A psychoanalytic perspective on ethics, self-deception and the corrupt physician. *British Journal of Psychotherapy*. 2012 May;28(2):235-48.

- [18] Muramatsu R, Bianchi A, MARIA A. Behavioral economics of corruption and its implications. *Brazilian Journal of Political Economy*. 2021 Feb 5;41:100-16.
- [19] Fischbacher U, Föllmi-Heusi F. Lies in disguise—an experimental study on cheating. *Journal of the European Economic Association*. 2013 Jun 1;11(3):525-47.
- [20] Batson CD, Kobryniewicz D, Dinnerstein JL, Kampf HC, Wilson AD. In a very different voice: unmasking moral hypocrisy. *Journal of personality and social psychology*. 1997 Jun;72(6):1335.
- [21] Moreno Pinzón LF, Dussán Castillo LL. Reconocimiento al fenómeno de la corrupción en Colombia: una caracterización de los valores democráticos evidenciados en las discusiones del aula de matemáticas en relación con la educación matemática y ciudadanía.
- [22] Gino F, Norton MI, Ariely D. The counterfeit self: The deceptive costs of faking it. *Psychological science*. 2010 May;21(5):712-20.
- [23] Shalvi S, Eldar O, Bereby-Meyer Y. Honesty requires time (and lack of justifications). *Psychological science*. 2012 Oct;23(10):1264-70.