

POLYGRAPH IS THE LIE DETECTION OF TRUTH FROM UNCOVERING ARMOUR OF THE CRIME BY CHEMICALS FROM PHYSIOLOGICAL RESPONSE

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ABSTRACT

A polygraph, often incorrectly referred to as a lie detector test, is a junk science device or procedure that measures and records several physiological indicators such as blood pressure, pulse, respiration, and skin conductivity while a person is asked and answers a series of questions. The belief underpinning the use of the polygraph is that deceptive answers will produce physiological responses that can be differentiated from those associated with non-deceptive answers; however, there are no specific physiological reactions associated with lying, making it difficult to identify factors that separate those who are lying from those who are telling the truth. Polygraphs measure physiological arousal factors, including heart rate, blood pressure, respiration, perspiration, and skin conductivity. The theory of the lie detector test is that these physiological responses will be different when the subject is truthful versus when the subject lies. When conducted properly, polygraphs are correct 98% of the time, but no scientific evidence has been offered for this.

KEYWORDS: Polygraphs, Lie detector, Physiology, Cognition, Psychedelics.

INTRODUCTION

The history of the polygraph is the subject of the documentary film *The Lie Detector*, which first aired on American Experience on January 3, 2023. In 1921, a California-based police officer and physiologist named John A. Larson designed the very first polygraph to record continuous variations in heart rate, pulse rate, and respiratory rate to assist in the identification of dishonesty. Today, Leonarde Keeler is known as the father of polygraph. In 1948, Leonarde Keeler founded the world's first polygraph school—the Keeler Polygraph Institute—in Chicago, Illinois. Between 1945 and 1947, John E. Reid, a lawyer from Chicago, Illinois, developed the polygraph technique called CQT. John Augustus Larson (11 December 1892 – 1 October

1965) was a police officer and forensic psychiatrist and became famous for his invention of the modern polygraph device used in forensic investigations. He was the first American police officer with an academic doctorate and to use the polygraph in criminal investigations. The Control Questions Technique (CQT) is the most widely used method of psychophysiological detection, and it is being applied for various purposes (e.g., criminal investigations, employee screening and selection) in several countries, most notably in North America and Israel. Leonarde Keeler (October 30, 1903 – September 20, 1949) was an American inventor best known for co-inventing the polygraph. He was named after the polymath Leonardo da Vinci, and preferred to be called Nard.^[1]

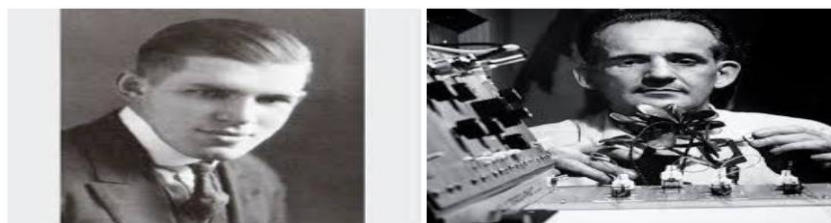


Figure 1: Inventors [John Augustus Larson & Leonarde Keeler].

The machine measures four to six physiological responses, such as respiration, blood pressure, and heart rate. The theory is that lying causes stress reactions, which a trained examiner analyses. A polygraph exam takes about an hour and a half to two hours. Polygraph practice is built on comparing physiological responses to questions that are considered relevant to the investigation at hand, which evoke a lie from someone who is being deceptive, with responses to comparison questions to which the person responds in a presumably known way. We're going to take a look at 15 tips for how to pass a polygraph test. Sedatives or hypnotics that alter higher cognitive function include ethanol, scopolamine, 3-quinuclidinyl benzoate, potent short or intermediate acting hypnotic benzodiazepines such as midazolam, flunitrazepam, and various short and ultra-short acting barbiturates, including sodium thiopental.^[2] Psychedelics are a subclass of hallucinogenic drugs whose primary effect is to trigger non-ordinary mental states (known as psychedelic experiences or "trips") and a perceived "expansion of consciousness also referred to as classic hallucinogens or serotonergic hallucinogens, the term psychedelic is sometimes used more broadly to include various types of hallucinogens.

- #1: Be Prepared.
- #2: Be Honest.
- #3: How Can a Machine Tell if I'm Lying?
- #4: Know the Composition of the Test.
- #5: The Polygraph Test Questions.
- #6: Recognize the Types of Questions in the Lie Detector Test.

- #7: Control Your Breath.
- #8: Understand Your Body Language.
- #9: Remain Serious.
- #10: Take Your Time.
- #11: Do Not React to Accusations.
- #12: Do Not Expand on Answers.
- #13: Control Your Response.
- #14: Ignore the Results.
- #15: Beware the Post-test.

Polygraphs are the most popular lie detector tests used in the United States. Polygraphs measure physiological arousal factors, including heart rate, blood pressure, respiration, perspiration, and skin conductivity. The Polygraph Test is commonly known as a "lie detector test." It is a procedure that detects several physiological indicators, including pulse, blood pressure, respiration, and skin conductivity, which indicate if a person is being untruthful when asked a series of questions. A lie detector test, also referred to as a polygraph test, is a device that is used to measure the changes that involuntarily occur in a person's body in response to a question or a statement. The primary purpose of a polygraph test is to detect deception. A polygraph, often incorrectly referred to as a lie detector test, is a junk science device or procedure that measures and records several physiological indicators such as blood pressure, pulse, respiration, and skin conductivity while a person is asked and answers a series of questions.^[3]

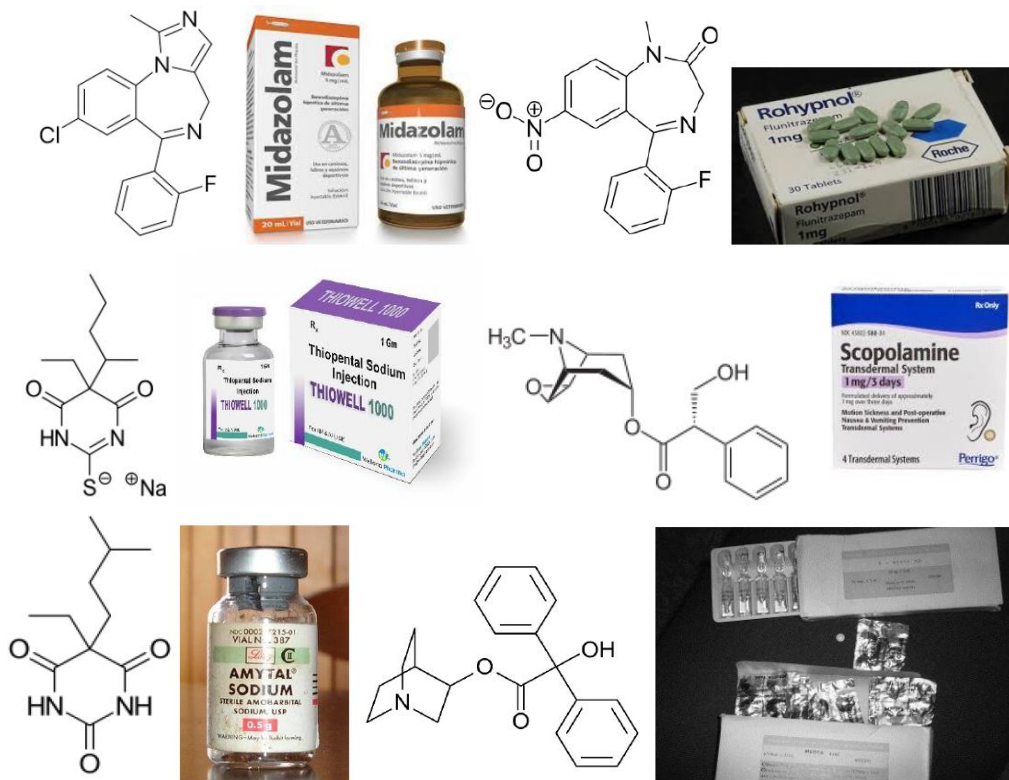


Figure 2: Ultra short acting Benzodiazepines and Barbiturates.

A polygraph, often incorrectly referred to as a lie detector test, is a junk science device or procedure that measures and records several physiological indicators such as blood pressure, pulse, respiration, and skin conductivity while a person is asked and answers a series of questions. But you may be wondering just what a polygraph test is. And that’s where we’re going to start. This test will require you to answer a range of different questions about yourself and different situations that you may have found yourself in throughout your life. And the results of this test will play a very large part in deciding whether you will get the job that you’re applying for. However, the test is not 100% accurate, and honest people often fail the polygraph. It’s not enough to simply tell the truth if you want to know how to pass a lie detector test. We’re going to help you learn how to tackle the very challenging lie detector questions, with the most comprehensive and focused preparation course you can do.^[4]

We’re going to take a look at 15 tips for how to pass a polygraph test.

#1: Be prepared: We often get asked: “What is the polygraph test?”

And while every agency slightly varies their presentation of the test, there are some things you can count on.

Modern polygraph machines most commonly look like USB hubs attached to laptop computers. Similar to the devices you see in Hollywood movies, however, you’ll have the following monitors attached to you:

Wires attached to your fingers to test perspiration and temperature

Straps around your chest to gauge your breathing and heart rate

The familiar blood pressure cuff around your arm

You may also have a clip microphone attached to your shirt and probes attached to your head.

It’s very intimidating – it’s designed that way. The polygraph test is purposely fashioned to make you uncomfortable.

#2: Be Honest: The questions you’ll be asked during the polygraph examination are based on the application form you completed at the beginning of the application process. And while there are answers that could disqualify you from consideration for the role, honesty and consistency are the most important things. If the answers you give during the polygraph test differ from the information you surrendered on your application, you’ll be interrogated further, and you’re likely to fail.

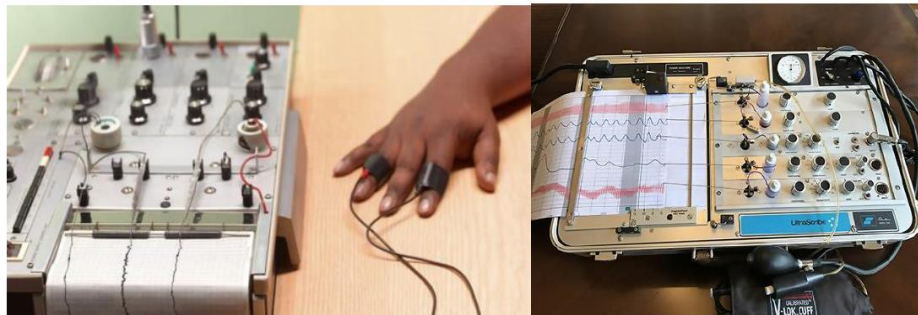


Figure 3: Lie detector.

#3: How can a machine tell if i’m lying?: It can’t. There’s no such thing as an “honesty machine.” But the various devices attached to your body can read the physiological changes that occur when you’re questioned under pressure. The machine looks for the spikes and

peaks that take place when we experience internal conflict, such as:

- Fidgeting
- Avoidance of eye contact
- Sweating
- Stumbling over words, etc.



Figure 4: Honesty machine.

And there are less visible signals such as changes in blood pressure, breathing – and heart rate, and an increase in body temperature. The polygraph detects these physiological changes and – in conjunction with the list of polygraph testing questions – the examiner can build a scientific judgement on the honesty of your responses. However, as we mentioned at the beginning of this article, the polygraph test is controversial. It’s not 100% accurate. And honest people fail all the time. Preparation, therefore, is your first line of defence.^[5]

#4: Know the composition of the test: The polygraph examination is made up of three principal sections:

- The pre-test
- The actual test
- The post-test

Also watch for common liars' mistakes like mismatching words and body language. They might say “no” while nodding “yes.” They could exhibit strange emotions (laughing when the subject is serious, for example). Or, they may say they feel one emotion while looking like they feel another. You should consider the entirety of the time you spend in the interrogation room a valid part of the test.

The examiner will tell you when the actual test is going to begin, and they’ll indicate to you when it has ended. But as long as you have monitors attached to your body, you should consider the test to be in operation.

#5: The polygraph test questions

We can’t give you a set list of polygraph questions, but you will generally be asked questions regarding: Your history of theft, including shoplifting and petty theft from your employer
Involvement in drug trafficking, drug dealing, and organized crime of all sorts

- Your use of alcohol and illegal drugs
- Your use of medication, including steroids
- The integrity of the information you’ve provided in your application and during the test
- Your criminal record and/or arrests (usually excluding minor traffic offenses)
- Involvement in crime that has not been, thus far, detected
- The withholding of information or evidence that might affect your suitability for the role
- Your involvement in physical fights, including excessive force toward another person or partner
- The payment or acceptance of bribes

#6: Recognize the types of questions in the lie detector test: There are three main types of questions you’ll experience during your polygraph or lie detector test:

Relevant questions: Relevant questions deal with genuine issues of concern. Relevant questions cross-examine the information you provided on your application form and dig into anything that may incriminate.

Example questions could be:

- Before applying to this agency, have you ever done anything wrong in your life?
- Have you ever physically harmed another person during a domestic dispute?
- Are you withholding information that might disqualify you from a role in law enforcement?
- Have you ever paid or accepted a bribe?

Irrelevant questions: The polygraph examiner uses irrelevant questions to establish a baseline. These questions don’t directly relate to the job or to the information you provided in your application. Examples of irrelevant questions are things like:

- Is today Friday?
- Are you standing?
- Are you alive?

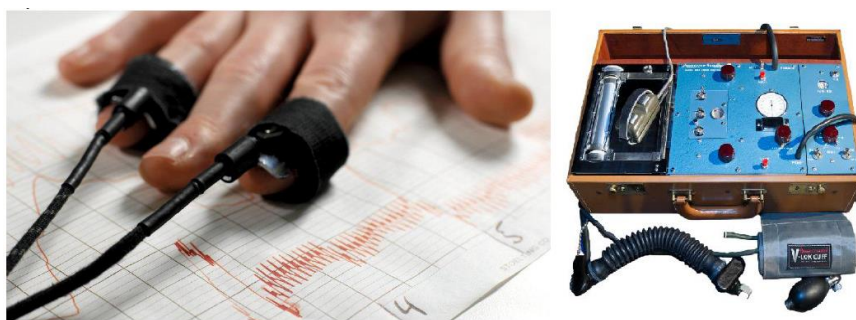


Figure 5: Analysis by polygraph.

Control Questions (or Probable Lie Control Questions). These questions practically force us to lie. It shows the examiner your physiological response to lying so that they can compare it with your reactions to relevant questions later on.^[6]

Examples of probable lie control questions could be
Did you ever tell a lie during the first twenty years of your life?

- Have you ever borrowed something and failed to return it?
- Have you EVER stolen anything?

#7: Control your breath: Most of us know that breath control (i.e., slowing down the breath rate) has a positive effect on our overall sense of calm. Long, slow, deep inhalations and exhalations are commonly used in meditative practices to lower the heart rate. Deep

breathing techniques, therefore, will help to maintain a consistent heart rate and keep your blood pressure from rising throughout the actual test. Learn how to beat a polygraph by remaining in control of your breathing in the Prep Terminal “Ace the Psych Test” training manual.

#8: Understand your body language: Your examiner uses the readings on the polygraph machine, and the CVSA monitor, to gauge your responses to questioning. However, they’re also trained to recognize physical indications that suggest a person is lying. Sit as still as possible throughout the entirety of the test. Make eye contact when appropriate and do not fidget.

#9: Remain serious: The examiner may adopt a specific tone during your test. They may come across as friendly and helpful – trivializing the importance of the test – or they may adopt a cold and professional nature.

Either way, you should aim to remain impassive, serious, and professional. Don’t snub friendliness, but don’t encourage it. And don’t allow aggressive questioning tactics to rile you.

#10: Take your time: There’s no rule that you have to finish the polygraph test as quickly as possible. Unfortunately, many people do not think about the benefits that come with slowing down. You may find yourself talking fast, or might find that your heart is racing not because you’re lying, but because you’re worried about the importance of the test. By slowing down and taking a deep breath (or two) before answering, you will feel more confident, which helps you come across better with the examiner.^[7]

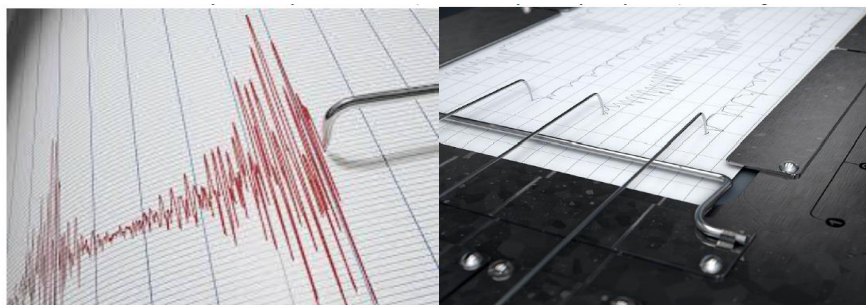


Figure 6: Lie detection.

#13: Control your response: The key here is to cause a ‘spike’ in your physiological response in regard to a control question. When you answer a question that is obvious you are telling the truth and your body responds it will create a new baseline. For example, when the examiner opens the test they will ask you questions like “is the sky blue,” “Is your name X,” or “Is your birthdate X.” These are questions that they know the answer to and they use them to get a base of what your physiological response is to tell the truth. If you can control your response to these questions, causing your physiological response to ‘spike’ as it would if you were lying, you can skew the results of the test. This can give you a bit more

#11: Do Not react to accusations: Your examiner may try to make you even more nervous or agitated by accusing you of lying or accusing you of something bad. Do not let these accusations startle you or allow them to throw off your confidence. This type of accusation can also cause some people to respond instinctively. When you do this you may tell the examiner something that you did not intend to or may reveal something about yourself that you do not want. For example, reacting angrily could give the impression that you do not have good control of your emotions. Getting too nervous could also make the examiner believe that their accusation is accurate.

#12: Do not expand on answers: Polygraph questions are designed to be “yes” or “no” questions because that’s what the machinery can respond to. When you answer a question on the polygraph, give only the answer that is required. That means “yes” or “no” only. A closed question, in the context of the polygraph test, can be challenging to answer, however – especially when a binary “yes” or “no” feels too simplistic. That is the point. The examiner wants you to keep speaking and say more than you need to. Don’t. If the examiner asks for further clarification or explanation ask them what they are looking for. Only respond to what you are directly asked. Do not volunteer extra information. The examiner is not there to be your friend. That means they are not someone that you want to ‘chat’ with. Instead, tell them only what they need to know (i.e., what they directly ask you for) and then get out.

leeway when it comes to answering questions that are uncomfortable and may cause you to ‘spike’ even if you’re telling the truth.^[8]

#14: Ignore the results: Your polygraph results will likely not look like much to you if you can see them. In fact, they look only like lines on a screen. But if you look at those lines they could make you more anxious or nervous. This also applies to any looks that you might get from the examiner or anyone else who might be in the room. Do not let their looks (either at you, each other, or the screen) cause you to feel insecure.

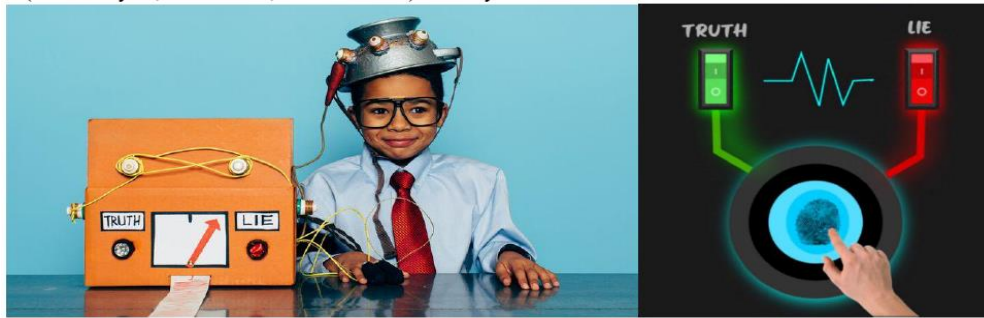


Figure 7: Bridge between Lie and Truth.

#15: Beware the Post-test: The examiner will let you know when the actual test is over, and they might encourage you to relax now that the hard bit has finished.^[9]

Don't relax. As long as you're wired up, the test is still running. The examiner will use the post-test period to obtain additional information about you. They might go back to some of your answers and challenge them. Stay consistent and stick with your original answers.^[10]

CONCLUSION

"Many writings" is the literal meaning of the term "polygraph." The name is associated with how several physiological activities are regulated at the exact time. Polygraph examiners may utilise either traditional, known as analogue or computerised, known as digital devices.

Share. A polygraph is an instrument that examines an individual's physiological responses to questions from a researcher and analyses the results to indicate whether the individual is telling the truth or not when giving the answers. A polygraph, often known as a lie detector, is a device used by security forces to assess an individual's physiological responses to specific questions. Despite its generic term, the polygraph does not identify lies, and most polygraph examiners will tell you that they look for deceptive reactions rather than lying. Polygraphs are employed on the assumption that most individuals do not lie or mislead until they are anxious or frightened. This is based on the premise that most individuals either feel guilty about lying or are terrified of being discovered or getting into trouble if they do. Anxiety and anxiousness are caused by fear and guilt.

In 1921, a California-based police officer and physiologist named John A. Larson designed the very first polygraph to record continuous variations in heart rate, pulse rate, and respiratory rate to assist in the identification of dishonesty. In 1923, when Marston tried to have the findings of a polygraph test entered as evidence, the polygraph made its first significant interaction with the court system. The first scientific review of the polygraph was undertaken in 1965, 41 years after the Frye test was established. An impactful critic of polygraph tests, David T. Lykken, argued that the apparent disconnect between the science and practice

of the polygraph was primarily because few expert polygraphers have psychological training. Meanwhile, few psychologists are knowledgeable enough about the industry to oversee its practices. Leonard Keeler cooperated with Larson on the idea and later improved it by reducing the time it took to set up the gadget and using ink to record the results. In 1931, he was granted a patent for his modified version and was the first-ever granted for a polygraph. Changes in skin responsiveness, such as sweating, were included as a third area to be studied by Keeler in 1939. Keeler went on to found the Keeler Polygraph Institute, which specialises in polygraph testing.

Polygraph Test: A pre-test discussion, a chart gathering phase, and a test data processing phase are all part of a standard polygraph examination. During the pre-test, the polygraph inspector will fill out the necessary papers and speak with the interviewee about the test, answering questions he or she may have. During this phase, the examiner will go over the test questions with the examinee and familiarise him or her with the test process. The investigator will give and collect many polygraph charts throughout the chart collection phase. The series of questions and charts will differ depending on the number of topics and techniques used. Following that, the examiner will review the charts and provide an opinion on the examinee's honesty. When it is appropriate, the examiner will provide the examinee with the opportunity to clarify physiological reactions regarding one or more of the test's questions.

Uses of Polygraph Test: Polygraph tests can be used to determine the validity and solve a case in a variety of situations:

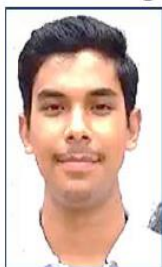
Employees with specific qualifications may be subjected to polygraph testing: Polygraph testing could be necessary for hiring if a business owner wants to employ the best people for the position. This will aid in determining the potential employee's honesty and ensuring that the organisation hires a trustworthy individual. Pre-employment testing frequently includes questions aimed at determining a person's educational status and previous work history. Polygraph findings may be used to screen out potential employees who do not meet the hiring company's integrity criteria.

For issues involving homeland security: Polygraphs are commonly used by the Central Intelligence Agency, the Federal Bureau of Investigation, the National Security Agency, and other federal agencies responsible for national security to uncover crimes and threats. Investigations into commercial theft: Businesses concerned about employee theft and fraud may be able to use the polygraph to assess employee honesty and loyalty. Criminal Investigation: One of the most common uses of polygraph exams to detect lying are in criminal investigations. Polygraph tests are used in a variety of settings, including security agencies. Polygraph testing will aid security authorities in detecting suspected terrorists as well as other deviant people who may conceal their identity. Polygraph tests are beneficial not only in identifying criminals who may attempt to trick the legal system but they will also assist in bringing justice to countless innocent victims who have been

convicted as a result of a court's incorrect judgement. If polygraph tests are conducted on those convicted and imprisoned, it may be possible to identify those who have been wrongfully convicted and free them.

Polygraph tests can be used to determine whether or not someone is lying. Polygraph testing is based on the premise that the act of lying is reflected in physiological or neurological responses, as the human body reacts differently when attempting to conceal the truth or facts. Polygraph tests can be used in a variety of situations. Polygraph tests are used extensively in police investigations, national defence, employee recruitment, and employee theft. Polygraph tests are accessible in a variety of formats nowadays. The effectiveness of polygraph testing, on the other hand, will be determined by its ability to reduce subject misclassification. The results of such inquiries may also be inaccurate.

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