A hrief history of the lie detector



"What sentimentalists men of science are!" exclaimed Father Brown, "and how much more sentimental must American men of science be! Who but a Yankee would think of proving anything from heart-throbs? Why, they must be as sentimental as a man who thinks a woman is in love with him if she blushes!"

- G.K. Chesterton, The Mistake of the Machine

January 30th, 1995, not long after O.J. Simpson had released his book I Want to Tell You, the TV show Hard Copy told their viewers that they had subjected Simpson to a lie detector test. The former football star and murder suspect had recorded himself on tape, reading aloud various passages from his book. "I want to state unequivocally that I did not commit these horrible crimes," he declared. Hard Copy hired Ernie Rizzo to use the Psychological Stress Evaluator to subject Simpson's voice to stress analysis. According to the show's Hollywood reporter Diane Diamond, the Psychological Stress Evaluator can "separate fact from fiction" because there is "no cheat-sheet for this kind of test." Used by the police, the military and big-business,

by Geoff Eurn

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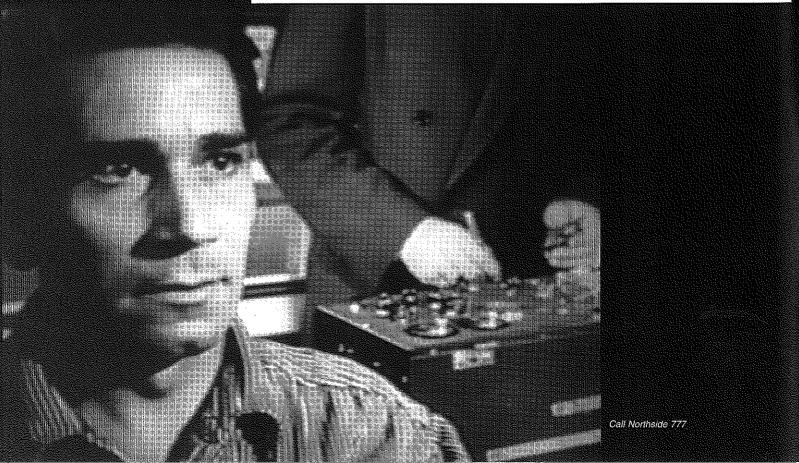
she told us, this type of lie detector has been shown to be "95 percent accurate." As a result of his analysis, Ernie Rizzo concluded that O.J. was "one hundred percent deceitful." "He is one hundred percent lying," said Rizzo, pointing to the graphical evidence as it issued forth from his machine.

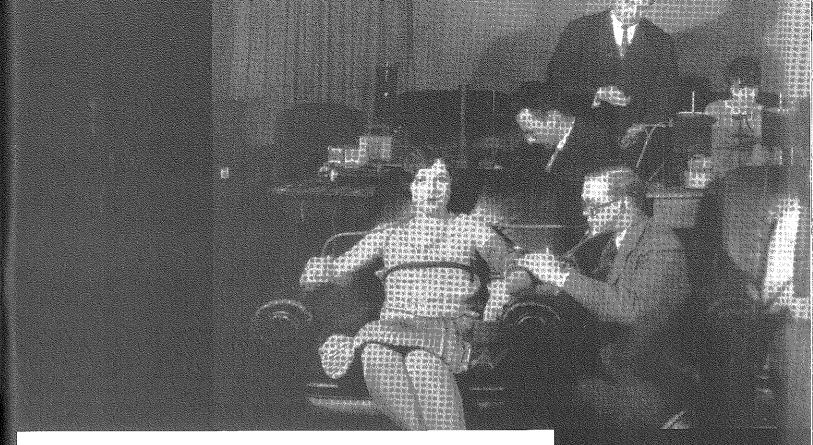
One week after the *Hard Copy* deception test, the supermarket tabloid the *Globe* also subjected Simpson's voice to stress analysis. "Veteran investigator" Jack Harwood used "Verimetrics," "a high-tech lie detector test," to analyze the very same tape-recording of Simpson that the TV show had used (*Globe*, 7th Feb., 1995). "After painstakingly reviewing the results of his sophisticated lie test, which is also favored by police investigators," said the *Globe*, Harwood proclaimed Simpson "absolutely truthful"; the "lie test shows O.J. didn't do it!"

Thus we have one type of lie detector, a single suspect, but two equally vehement yet contradictory verdicts. When he said, "I would take a bullet for Nicole," "the former football hero was being completely honest," said Jack Harwood; but according to Ernie Rizzo he was "absolutely lying." How can two experts both claim scientific validity for their respective instruments, yet simultaneously reach completely different conclusions based on their analyses of exactly the same material? Are we simply dealing with a classic "pseudoscience," whose illegitimacy must be exposed, and whose scientific credentials must be disputed? Or do we have before us a scientific instrument — a "truth-telling machine" — for which the task of telling the truth is in fact only a minor concern?

After all, as the story of these lie detector tests given by the tabloids to O.J. Simpson suggests (O.J's lawyers F. Lee Bailey and Johnnie Cochran, despite their media savvy, did not insist their client take a polygraph test), here is an instrument whose cultural presence is so assured that it can afford to expose itself to potentially embarrassing invalidations with impunity — invalidations which might well inspire demands for its censure and prohibition. But, as Nietzsche suggested, "it is certainly not the least charm of a theory that it is refutable: it is with precisely this charm that it entices subtler minds" (Beyond Good and Evil). This article will leave the chore of refuting the theory of the lie detector to more subtle minds — a task embraced admirably and consistently by psychology — and will instead explore some of the machine's other seductions. My ambition is to present a brief history of the lie detector that, following Nietzsche, attempts to scrutinize this notorious instrument "beyond good and evil."

Despite constant criticism, ridicule, government prohibition, Papal condemnation, and a widespread belief that it can be beaten, the lie detector just won't go away. It was recently seen on *The Jerry Springer Show*, "You're a Liar!" Among others, viewers were introduced to Roxanne,





who suspected husband Walter of marital infidelity; and Saul, accusing his girlfriend Tiffany of being a pornographic movie star. The lie detector expert whose task it was to discern the truth of the various allegations was none other than *Hard Copy*'s Ernie Rizzo. "Ernie, you are the holder of truth," said a somewhat melodramatic Jerry, as Ernie prepared to make public his assessment of the validity of Walter's denials; "if he's lying, he's out the door."

Luckily, Walter was proclaimed truthful by Ernic and his machine, and the marriage was saved, although Roxanne's response — "How much you pay him?" — suggested that she was unconvinced of the lie detector test's integrity. Perhaps we could be forgiven for believing that Ernie's admirable attempt to solve marital problems with the lie detector was a novel historical development, a well-intended but ill-advised overture from the over-zealous "polygrapher to the stars." But this was exactly the use to which the lie detector was put by one of its most enthusiastic early pioneers over half a century ago.

In 1938, an article in a popular magazine began with the following words:

From the field of crime, the "Lie Detector" has entered the fields of love. It now tells whether or not your wife or sweetheart loves you—or you, her. Dr. William Moulton Marston, the inventor, reports success with his device in solving marital or other domestic problems, and adds that it will disclose subconscious secrets of which the subject is utterly unaware...In the hands of a psychologist these instruments become disinterested truth-finders (*Look*, 6th Dec., 1938).

The magazine described the psychologist's successful resolution of two difficult cases: "the neglected wife and her roving husband," and "the boy and the girl who were in love, but were engaged to others." The article concluded: "Dr. Marston believes the course of true love would run much more smoothly if more deception tests were applied in such 'triangle cases.'" In his book *The Lie Detector Test*, Marston expanded on his ideas about the role the machine could play in discovering the truth about relations between the sexes.

Women, agree masculine sages, are the worst liars. But are they? Treatises have been written—by men — to prove that women lie more frequently because they are the weaker sex and must deceive continually to protect themselves...The Lie Detector now supplies a method for scientific comparison between male and female truthfulness.

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above fig. 45 in Integrative Psychology: A Study of Unit Response aving surveyed his experimental data, Marston concluded that "men are more dishonest in business and women in society." Thus when it came to "money, or important and valuable property, women employees are far more honest than men." Although members of "the more loving sex," however, tell innumerable lies "to enliven social conversations and to manipulate other people for various petty purposes or oftentimes just for the fun of it." Thus although Marston advocated the lie detector as a tool for challenging the myth of female untrustworthiness, his work merely reasserted the stereotype and gave it scientific credibility.

After graduating from Harvard with a Ph.D. in 1921 (claiming to have "discovered" the lie detector six years earlier) Marston took various university teaching jobs before accepting a position in Hollywood at Universal Pictures as Director of Public Service. His task was to ascertain audience emotional reactions to movies and to advise the producers accordingly. His "love detector" was perfectly suited to this research. One experiment, appropriately conducted in New York's Embassy Theater, involved testing the emotional reactions of blondes, brunettes, and redheads to various movie clips. The findings were reported in the *New York Times*:

BLONDES LOSE OUT IN FILM LOVE TEST; Brunettes Far More Emotional, Psychologist Proves by Charts and Graphs; THEATER A LABORATORY (31st Jan., 1928).

Although Marston's research was eccentric from the standpoint of psychology, it was not atypical as far as the developing science of the detection of deception was concerned. Science and sex, technology and theater, and magazines and movies have been consistent accomplices to the lie detector throughout its short but ignoble career. A 1938 newspaper report on a Chicago psychology exhibition was illustrated with a photograph of a young woman performing a lie detector test on another. "It really understands women" explained the caption; "when a girl submits to the Darrow photopolygraph her emotional life becomes an open book."

Newspaper articles about the lie detector habitually featured a picture of a female subject being interrogated by a *male* examiner. A 1935 *New York Times* report on Leonarde Keeler's latest polygraph successes depicted the criminologist attaching his device to a young woman. While Keeler fiddled with his instrument, watching the woman from behind her back, she herself gazed impassively into the distance. "Keeler polygraph tests have been applied to 4,000 suspects in criminal cases," the piece claimed.

Son of a Hollywood scriptwriter, Keeler had built his first lie detector under the supervision of the energetic Berkeley police reformer, August Vollmer, in 1921. After securing the position of chief polygrapher at Chicago's Scientific Crime Detection Laboratory — which had been set up in response to the St. Valentine's Day massacre — Keeler went on to have a widely celebrated career. He subjected Al Capone's gangsters to lie detector tests and received a medal in 1931 for making a most outstanding civic contribution to Chicago; a confession obtained during one of his examinations in 1946 led to the recovery of a hoard of priceless jewels and historical relics looted by the Nazis during

the war. By 1947 he was so famous he could play himself alongside Jimmy Stewart in *Call Northside 777*, a movie which told the true story of a newspaper reporter who employed the new sciences of polygraphy and forensic photography to help free a wrongly convicted man from jail.

The classic image of a male examiner observing a female suspect, employed by Marston, Keeler and many others, has now become a standard feature of many polygraph training handbooks. It can be found in Wilhelm and Burns' Lie Detection with Electrodermal Response (1954); Reid and Inbau's Truth and Deception (1966), a key text widely regarded as the polygrapher's "Bible"; and James Matté's The Art and Science of the Polygraph Technique (1980). Representing ideal testing situations for trainee polygraph operators, such images depict the ideal suspect-examiner relationship. The examiner should be masculine, rational, technical and objective, while the suspect should be feminine, emotional, human and subjective. The examiner is preferably unseen and laconic, the suspect observed and verbose. The deviant constructed by lie detection is therefore devious by virtue of the fact that she is female; because femininity is itself suspicious, as far as polygraphy is concerned, femininity signifies ideal suspect characteristics.

If femininity is the subject of the polygraph examination, then it must be supervised by a masculine ethos. The testee is subjected to a whole series of scrutinies: behaviour symptoms are noted both before and after the test is performed; every gesture and nuance of expression is recorded by cameras behind two-way mirrors and by muscle-tension detecting chairs; talkativeness and enthusiasm are noted in order to be incorporated into the examiner's final diagnosis of guilt.

But while such a social psychology of the testing situation clearly occurs, reminding us that no lie detector examination can take place under laboratory conditions divorced from the broader social context, certain semiotic indicators also allow us to unpack those values that underscore the polygraph exam. What better symbol of mobile professional patriarchal power than *The Briefcase*, that mandatory accessory of every polygrapher? From the briefcase comes *The Chart*, that graphical calculus of guilt, a sacred scroll upon which the truth has been inscribed. Consider also *The Chair*, both a diabolically paradoxical throne, a seat for the sovereign-subject with whom no eye contact must be made, and a constraining device, a potential instrument of torture. Testees need to be reassured that not only will the psychogalvanometer attachment not give them an electric shock, but also that the red ink graphically tracing out their heartbeats and blood pressure is not, in fact, their own blood.

How ironic then, that for the science of pupillometrics—the detection of deception by recording changes in pupil size—the gaze of the *suspect*, and not that of the examiner, became the important characteristic of the lie detector test. Developed during the Second World War by psychologist F.K. Berrien, pupillometrics becomes the basis of the Voight-Kampff Machine used by Bladerunners in the eponymous sci-fi movie to determine whether a suspect is a human or not. Scrutinized by the ocular gadget, Rachael knows only too well that lie detectors seek to uncover more than just the immediate truth when she asks "Is this testing whether I'm a replicant or a lesbian, Mr. Deckard"? Because Sharon Stone's character in *Basic Instinct* passes a polygraph test by disinhibiting her emotions, the implication is that, like Rachael, she must likewise be less than human.



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of the century" to the 1995 he lie detector has been conerican popular culture. From , from Wonder Woman and ner, from *Call Northside 777* een made real by the mass vies, magazines and TV n the lie detector has been f the machine's creation. lific instrument because its eded its invention. It is a igless the notion of the "popirtual science, it quintessen-

Considering the potent mixture of fact, fiction, and fetishism that is the lie detector, it should come as no surprise therefore to learn that one of the instrument's early advocates, the psychologist William Moulton Marston, was responsible for creating and developing the comic book character Wonder Woman. Crippled with polio, Marston devoted the last years of his life to pop-psychology and his self-proclaimed feminist icon. In nostalgic recognition of his earlier work with the machine, he equipped Wonder Woman with a portable lie detector of her very own: a golden lasso of truth. Like the scientific instrument, the golden lasso also promised liberation through the discovery of the truth. But freedom came at a price: the lie detector, like Wonder Woman's bracelets of submission, and her golden lasso of truth were instruments of bondage.

fter working for many years at the Scientific Crime Detection Laboratory, Leonarde Keeler went on to establish his own lie detector training school, and a polygraph practice bearing his name still operates in Chicago today. His biography, The Lie Detector Man, was published in 1984 by his sister Eloise. "This is a memoir of an extraordinary man," she wrote in the foreword, "my brother, Leonarde Keeler, developer and pioneer of the polygraph." Never having found enough time between notorious cases and celebrity parties to write the definitive polygraph handbook as he had always hoped, he died in 1949, two years after his great rival William Marston.

Whereas Marston created Wonder Woman, the antics of Keeler's Scientific Crime Detection Laboratory inspired the creation of Dick Tracy. Although Marston was the first to present the lie detector to an American court (inadvertently establishing the legal criterion of admissibility for scientific evidence in the process), it was Keeler who secured the first patent on the instrument. The professional careers of the two men coincided when the convicted Lindbergh baby kidnapper, Bruno Hauptmann, pleaded for the opportunity to take a lie detector test in 1935. Hauptmann's wife asked Keeler to give her a test, to see if the instrument could help in her husband's case. Marston conferred

with the State Governor about the possibility of testing Hauptmann,

In seeking a concluding symbol of the lie detector's qualities then, we need look no further than the 1970s US TV show The Lie Detector. Hosted by a charismatic lawyer who had supported himself through law school by conducting private polygraph tests. the show was a potent mixture of theater, sex, science and money. Guests were invited to be grilled by a panel of experts while strapped to the "disinterested truth-finder." A Spanish version of "the Truth Machine" - La Maguina de la Verdad - was Spain's most popular TV show in 1994, thanks to a wave of corruption scandals that inspired viewers to suggest that various politicians might like to submit to polygraph tests. Perfectly encapsulating the lie detector's salacious history, one of last season's most enthusiastically received guests was John Wayne Bobbitt, the man for whom the lie detector's marital guidance abilities came woefully too late.

Perhaps it was the success of the American version of the show that inspired Eloise Keeler to ask its lawyer-cum-TV star host to write an explanatory chapter for her brother's biography, The Lie Detector Man. His introduction includes the following lines:

> The polygraph technique is neither voodoo nor magic... it is extremely useful, and far and away the best test of credibility known to man.

These words were written by none other than F. Lee Bailey, TV show host, polygraph expert, publisher, and most recently, one of O.J. Simpson's lawyers. Given his belief in "the best test of credibility known to man," how strange then, and how wise, that the attorney would not insist his famous client take a lie detector test. But perhaps after forty years of intimate experience of the lie detector, F. Lee Bailey understood only too well what Nietzsche meant when he warned of "the hazards of the will to truth"?

Border/Lines

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