To determine if the Clever Hans Effect has an impact on justice the Clever Hans Effect must first be explained. The Clever Hans Effect on the judicial system is based on the use of a Detection Dog by law enforcement. This report will explain the Clever Hans Effect, and how it affects judicial outcomes.

In Germany during the early 1900’s a horse named Hans was believed to been able to spell and solve mathematical problems. Hans’ abilities were so unique the German board of education established the Hans Commission to research this hypothesis. The researchers included zoologists, psychologist, a horse trainer, several schoolteachers, and a circus manager (Bellows, 2008). The Hans Commission concluded Hans could in fact do the things it was believed he could do. According to the commission Hans was very clever.

The initial investigation of Hans did not involve Dr. Pfungst who questioned the outcome of the Hans Commission. Through, what is now known as, double blind testing Dr. Pfungst was able to demonstrate humans induced Hans’ behaviors. When Hans was placed in a position, in which he could not see anyone he would not respond. In addition, when someone was lead to believe an incorrect answer was correct Hans would give the answer that was expected. Dr. Pfungst’s research revealed human expectations could influence the performance of animals. In the Clever Hans Effect, influences are not intentional.

Cues from humans can be quite subtle. Research supports dogs understand human behavior better than chimpanzees. Dogs’ ability to understand human behaviors is based on the thousands of years of human interaction (Jennifer Viegas, 2009). Subtle human behaviors such as eye movement and focus to an object, pointing, head turning, nodding, gazing toward the target, and body orientation are just a few of the many behaviors humans subconsciously exhibit (M. Yamamoto, 2009).

Dr. Pfungst’s research revealed five human characteristics that could increase the probability of handler influence. Those characteristics are humans with natural ability to interact with animals, an air of authority, developed expectations, naturally gestural, and in good physical health (Rosenthal, 1976, p. 139) These characteristics are common with persons involved in law-enforcement. As a result, law enforcement officers have a high probability of influencing dogs when they expect the dog should or should not respond.

The Clever Hans Effect on the judicial system is supported by the fact most handlers and trainers do not understand the “Clever Hans Effect.” Without understanding the effect its impact cannot be controlled. Some handlers and trainers actually believe dogs do not make mistakes. “Claiming my dog never makes a mistake disqualifies the speaker as a serious professional since everyone realizes this is impossible” (A. Schoon, 2002, pp. 130-131). The primary cause of the belief drug dogs do not make mistakes is training of drug detector dogs is learned through apprenticeship. Very few trainers have studied the science behind training of animals. “Ideally, training should move beyond apprentice-like transmittal of
practices to education based on scientifically valid principles. In addition to the practical experience and learning acquired during an internship, a trainee should acquire rigorous interdisciplinary education and training in the scientific areas that constitute the basis for the practical forensic discipline and instruction on how to document and report the analysis. A trainee also should have working knowledge of basic quantitative calculations, including statistics and probability, as needed for the applicable discipline.” (National Research Council, 2009, pp. S-20) Increased education in the area of behavioral science would improve handlers and trainers ability to recognize the impact the Clever Hans Effect has on the outcome of the dog’s performance.

Clever Hans Effect

Clever Hans Effect is the judicial system in drug detector dogs by causing invasion of privacy by law enforcement officers based on what is known as drug interdiction. Interdiction is an attempt to intercept illegal drugs using factors known as indicators. For example, a radar detector in a vehicle, traveling late at night or early in the morning, luggage on the back seat, short term vehicle rental, or lack of luggage on an interstate trip are just some of what is considered indicators of drug transportation (Wallentine, 2008, pp. 59-60) To date, no studies have been conducted to determine the statistical relationship between the presence of indicators and the presence of contraband drugs. Because most handlers are not aware of the Clever Hans Effect they often want to know what indicators have been developed. The reason handlers often inquire about indicators is to determine if what is referred to as reasonable supision is present to take the dog around a vehicle. Reasonable suspicion is not necessary as long as the handler takes the dog around a vehicle while the main reason for the stop is being completed (Illinois v Caballes) As a matter of legal fact a handler can do as the handler in Caballes simply arrive at the traffic stop while a citation is being written take the dog out and walk it around the exterior of the vehicle. If handlers followed Caballes they could reduce the invasion of privacy caused by the Clever Hans Effect because it reduces expectations.

Drug detector dogs are not the only detector dogs influenced by the Clever Hans Effect. Scent ID dogs have resulted in people being falsely identified as perpetrators of crimes. In 2001 scent ID dogs casued the FBI to focus on Dr. Steven J. Hatfill as a suspect in the anthrax letters that resulted in five deaths. After a lengthy investigation and extensive invasion of Dr. Hatfill’s privacy he was excluded as a suspect. Fort Bend County Sheriff’s Office is currently under lawsuit for actions of their bloodhound handler whose dogs resulted in people being falsely accused of crimes.

The Netherlands’ judicial system has understood the impact of the Clever Hans Effect since the 1940’s. “In the 1940’s, the men in the row were replaced by objects” (A. Schoon, 2002, p. 30). The Netherlands judicial system now requires scent ID’s be conducted with double-blind test. While in situtation such as vehicle stops along the highway it would be at the very least impractical to conduct double-blind sniff searches “Clever Hans Effect” could be reduced by handlers not being allowed to receive indicators before conducting the search. Also, drug dog handlers should not be trained in interdiction as this could also lead to the “Clever Hans Effect.” Detector Dog handlers and trainers should be more related to areas of behavioral science espically areas such as behavior modificaton, behavioral research, behavioral analysis, and statistics for behavioral science.
“the clever hans effect on The Judicial system”

Research demostrates dogs are in fact impacted by the *Clever Hans Effect* and that impact has effect on the judicial system. Sadly, most court do not consider this a problem. Fortunately, some courts have begin to recongize the impact of cueing.

“Defendant presented testimony by a credible witness, based on observation of a videotape of the episode that the handler was cueing or suggesting a response to the dog and that the dog’s resultant “alert” was not reliable. That testimony is borne out by the court’s review of the handler’s conduct in the videotape. (US v Ervin Christy, 2008)

Scientific evidence clearly demonstrates the *Clever Hans Effect* influences detector dogs’ performance, which can lead to unnecessary invasion of privacy, and in some cases false arrest of individuals. Failure of handlers to record sufficient data to establish a statistical relationship between the two elements does not support the null hypothesis that Clever Hans has no impact on the judicial system. Cueing caused by the *Clever Hans Effect* has been demonstrated in dogs performing other task, as well as many other species. The exact impact of Clever Hans on the judicial system has not been established.

**WORKS CITED**


Illinois v Caballes, 543 U.S. 405 (Supreme Court 2005).


US v Ervin Christy, 8:07CR238 (US District Court for the District of Nebraska March 19, 2008).