

Short Research Article

Animal and Human Psychology

ABSTRACT:

Research on animals may harm the animals if proper care of them is not taken. It's really riveting to know more about the animal behavior, but sometimes we humans injure the animals knowingly or unknowingly. We should respect an animal's freedom, as most animals are caged or are separated from their family, while the researchers do their job.

Keywords: - Animals, human

INTRODUCTION:

Have you ever wanted to communicate with an animal? Be it a pet or some random street animal, we all have tried to talk to an animal to see if it understands us or not. We have only seen these epic human-animal talk in movies such as "Spirited Away", "Doctor Dolittle", etc.

Now communication with animals has become a reality. We try to communicate and understand how an animal feels, behaves, how it adapts to different habitats (Wachman, 2018). Animal psychologists are fascinated by these lovely creatures who live in the deep canopies and detritus of forests (Wachman, 2018).

Many of us have heard the saying, "A dog is a man's best friend". But more than docile animals are 'friends' with man (Archer, 1997; Udell et al., 2008; Groves, 1999). Many humans have bonds with the beasts of the jungle, and they are known as the Animal Psychologists (Archer, 1997).

THE BOND OF ANIMALS AND HUMANS:

Psychologists have studied many animals which varies from our ancestors, the chimps, to other animals (Archer, 1997). They study animals so that they can find out two things:

1) ***The capability of an animal's mind.*** Many pet owners have faced the difficulty of teaching an animal some human 'manners' (Udell et al., 2008). Researchers have spent centuries studying animals in vain (Archer, 1997). But psychologists are attached to animals and vice-versa (Udell et al., 2008).

36 II) **An animal's emotions.** Psychologists sense the perspective of animals by talking to
37 them and studying their reactions towards the different 'emotion filled' animal calls
38 (Groves, 1999).

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40 **ANIMALS WHICH ARE THE FAMOUS FOR THEIR TALENTS:**

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42 **Hans the Horse:**

43 Psychologists have been fascinated by how animals are truly capable of human-like
44 feats (Groves, 1999). In the early 1900s, a horse named 'der kluge Hans' which
45 translates to Clever Hans, answered all the questions asked of him in, dramatic fashion,
46 through his public performances in Berlin (Samhita and Gross, 2013). He was trained by
47 a mathematician, Wilhelm Von Ofsten. This brilliant horse became more talented, as he
48 could perform simple arithmetic, and tell the time by using his hooves to tap the ground
49 (Agrillo and Miletto Petrazzini, 2012). Hans could also identify painters by seeing their
50 paintings or identify the composer of a symphony. The German Board of Education
51 assessed Hans's capabilities, but there was no evidence of fraud (Samhita and Gross,
52 2013).

53 **Pavlov's Dogs:**

54 In the 1870's, a Russian psychologist, Ivan Pavlov studied dogs (Samhita and Gross,
55 2013). Pavlov's reason for studying dogs in most of his introductory psychology classes
56 and his textbook is due to dogs ability to understand and learn using the principle of
57 classical (operant) conditioning (Samhita and Gross, 2013). Pavlov discovered classical
58 condition by accident (McLeod, 2018). He noticed that the dogs salivate as a response to
59 cues such as the ringing of bells, the smell of food, etc. This has become challenging for
60 other psychologists (Samhita and Gross, 2013).

61 **Washoe the Chimp:**

62 The deaf and mute use sign language to communicate, and some researchers wondered
63 if this language could be taught to animals (Gökselet et al., 2009). In the early 20th
64 century, an experiment was devised to answer a question. Are primates capable of
65 learning human language if they were raised in human culture (Gökselet et al., 2009).
66 This prompted a research team, Luella and Winthrop Kellogg, to raise the chimp Gua
67 alongside their son (McLeod, 2018). It ended in failure, with Gua unable to speak.
68 Decades later, animal researchers realized that non-human primates would never speak
69 because of the different anatomy of their mouth and vocal chords (McLeod, 2018).

70 Recognition of this anatomical fact led to an intense period of work to teach apes sign
71 language and, later, communication by symbols on a picture board (Gökselet et al.,
72 2009). The first chimp to be taught sign language was Washoe. Washoe hailed from
73 West Africa and was adopted by a psychology researchers, Allen and Beatrix Gardner
74 (Gardner and Gardner, 1969). Washoe eventually learned to use over 250 different
75 signs. There is disagreement over whether Washoe ever really invented new words,

76 such as the time she allegedly signed “water”, “bird” at the sight of a swan (Göksalet et
77 al., 2009).

78

79 **Koko the Gorilla:**

80 Most of the ape language studies have involved chimps, but one particularly famous
81 exception is Koko the Gorilla, who was taught sign language and English for decades by
82 the psychologist Francine Patterson (Specter, 2014). A few years ago, Koko made
83 headlines around the world when it was alleged by the Gorilla Foundation in California
84 that she was mourning the passing of actor and comedian Robin Williams, who she’d
85 met for an afternoon in 2001 (Specter, 2014). A YouTube clip of their encounter has
86 been viewed over three million times. Koko has also starred in her own books, including
87 a children’s book, *Koko’s Kitten*, and has been the subject of several film documentaries,
88 most recently a BBC program *Koko: The Gorilla who talks to people* (Specter, 2014).
89 “What we can really learn from this extraordinary science experiment turned love
90 affair?” asks the film, highlighting in a nutshell one key problem with this entire field –
91 the emotional closeness between researchers and the animals they study, which
92 challenges the pursuit of scientific objectivity (Specter, 2014).

93 The sad thing about the story of Koko and the other apes made famous by their part in
94 psychological studies is that the whole field has ‘crashed’, not only because of the
95 methodological criticisms, but also amid accusations of animal mistreatment (Specter,
96 2014). A recent Slate article summed up the situation: “No new studies have been
97 launched in years, and the old ones are fizzling out. A behind-the-scenes look at what
98 remains of this research today reveals a surprisingly dramatic world of lawsuits, mass
99 resignations, and dysfunctional relationships between humans and apes.” Similarly, a
100 major new paper in *Annual Reviews of Anthropology* by Don Kulick states, “The
101 threadbare field left today is an alarming not-so-fun house of intrigue, betrayal,
102 accusation, threats, litigation, dismissals, obese apes, dead apes, mass resignations, and
103 even, inevitably, sex.”

104

105 **Peter the Dolphin:**

106 Sex is also a surprising theme of dolphin research that took place in the 1960s at a lab
107 known as Dolphin House, built on the Caribbean island of Saint Thomas (Specter, 2014).
108 There, John Lilley and his wife conducted investigations into whether dolphins are
109 capable of mimicking human speech, and later into the effects of LSD on dolphins
110 (Specter, 2014). As part of the language research, a woman called Margaret Howe
111 Lovatt moved into a specially designed dolphinarium with a young male dolphin called
112 Peter, living there more or less 24 hours a day in an office that was perched above his
113 water tank (Groves, 1999). The idea was that with constant human contact, it would
114 perhaps be possible for a dolphin to fully grasp and imitate human language. One
115 problem: the pup’s burgeoning sexual needs began to interrupt the language lessons
116 (Specter, 2014). At first Peter was intermittently relocated to spend time with female
117 dolphins in another tank, but Lovatt found that this interfered too much with her

118 research and the bond she was trying to establish, so she began to satisfy Peter's needs
119 herself (Riley, 2014). "It wasn't sexual on my part. Sensuous perhaps," she told
120 Christopher Riley, the producer and director of the BBC documentary, *The Girl Who*
121 *Talked To Dolphins*. "It seemed to me that it made the bond closer," she continued. "Not
122 because of the sexual activity, but because of the lack of having to keep breaking. And
123 that's really all it was. I was there to get to know Peter. That was part of Peter."

124 This isn't just an odd tale, but a sad one. As Lovatt's experiment was coming to an end,
125 news came that funding was being withdrawn from the lab (Specter, 2014). The
126 following year, Dolphin House lab was forced to close. Reports note that after being
127 moved to claustrophobic surroundings in Miami, Peter took his own life.

128 **Alex the Parrot:**

129 Language skills and a keen intelligence are not only the preserve of apes and dolphins,
130 as shown – to many experts' surprise at the time – by the remarkable achievements of
131 the African Grey parrot Alex (an acronym for "Avian Learning Experiment"), who was
132 studied for 30 years by the psychologist Irene Pepperberg, until the parrot's death in
133 2007 at the age of 31. Pepperberg, who bought Alex from a pet store in 1977, was
134 apparently inspired to study Alex because she'd read about the linguistic achievements
135 of Washoe and other animals. As well as being famous for his one liners, Alex apparently
136 learned over 100 words, could name over 50 objects and knew his colors and shapes
137 (Callaway, 2012). He starred in several BBC and PBS documentaries (Callaway, 2012).
138 Like many of his ape peers in the research world, Alex also received notable obituaries
139 upon his death (Callaway, 2012). *The Economist* referred to him as science's "best
140 known parrot" (Callaway, 2012) *The New York Times* ran with "Brainy parrot dies,
141 emotive till the end", in reference to the fact that Alex's last words to Pepperberg the
142 night he died were "You be good, see you tomorrow. I love you." (Callaway, 2012).

143 Compared with his ape peers, it seems that Alex contributed to research that is more
144 likely to stand the test of time (Callaway, 2012). He was featured in dozens of quality
145 peer-reviewed papers by Pepperberg (Callaway, 2012). In his recent review of human-
146 animal communication, anthropologist Don Kulick wrote the "... emphasis on cognition
147 and downplaying of language seem to have protected Pepperberg's studies [of Alex]
148 from the sort of critical onslaught that pulverized ape-language research" (Callaway,
149 2012).

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151

152 **Betty the Crow:**

153 Alex is far from being the only smart bird in town (Hunt and Gray, 2004). Betty, the New
154 Caledonian crow, though less famous than the parrot, made headlines around the world
155 in 2002 when it was reported that she had displayed ingenuity in fashioning a hook out
156 of a straight piece of wire, to reach food in a plastic tube, because another crow had
157 taken the hook provided by the researchers (Hunt and Gray, 2004). This was considered
158 a 'big deal', because as one of the researchers told BBC, "Although many animals use

159 tools, purposeful modification of objects to solve new problems, without training or
160 prior experience, is virtually unknown” (Hunt and Gray, 2004). In fact, the researchers
161 claimed Betty’s tool-making was more impressive than the tool use seen among chimps
162 (Hunt and Gray, 2004).

163 However, as usual with animal research of this kind, doubts have been raised about the
164 way Betty’s feat was interpreted. In 2017, a different team of researchers studied 18
165 new Caledonian crows as they made tools with the branches they use in the wild. The
166 researchers observed that most of the birds performed the same final modification – to
167 create a hook shape – as seen by Betty in the lab. In other words, Betty’s feat was not
168 entirely spontaneous, but probably part of her species’ natural repertoire. Meanwhile,
169 while we’re talking about corvids, an honorable mention should go to psychologist
170 Nicky Clayton’s scrub-jays, who have been observed demonstrating many behaviors
171 previously considered uniquely human, such as advanced deceit. For instance, a jay
172 would re-hide her food stash if a potential thief was nearby when she first hid it (Hunt
173 and Gray, 2004).

174 ***Echo the Elephant:***

175 Echo the Elephant had been filmed and observed in Kenya’s Amboseli National Park for
176 several decades, making her the world’s most studied elephant. Echo, who was her
177 tribe’s matriarch for about 36 years, starred in at least four documentaries, including
178 David Attenborough’s, “Echo: An Unforgettable Elephant” (Specter, 2014). The principal
179 researcher was ethologist Cynthia Moss who, like many of the other researchers
180 mentioned in this list, formed a powerful emotional bond with Echo (Hunt and Gray,
181 2004). Moss learned from Echo and the other elephants of Amboseli about their
182 emotional lives, their transmission of cultural practices and their capacity for future
183 planning and teamwork (Moss, 1992). This is illustrated in a video clip (Hunt and Gray,
184 2004), in which Echo marshals the support of her tribe’s adult females to execute an
185 apparently daring rescue of her daughter, Ebony, who had been kidnapped by a rival
186 tribe. Echo died in 2009 at the age of 64 (Moss, 1992).

187 ***Harlow’s Monkeys***

188 The importance of physical touch between mother and baby is today widely recognized,
189 but back in the 1950s, this wasn’t the case. This is due in part to the influence of Freud
190 and his ideas that an infant bonds with her mother primarily because the mother
191 satisfies the infant’s basic needs of thirst and hunger (Shallcross, 2012). The American
192 psychologist Harry Harlow’s research in the 1950s with rhesus monkeys changed this.
193 Though ethically controversial, it provided a powerful demonstration of the importance
194 of physical contact in mother-infant attachment (Shallcross, 2012).

195 Inspired by his observation that monkeys separated from their mothers grew highly
196 attached to and possessive of their blankets, Harlow created two forms of surrogate
197 mother: one made of wire that provided milk, another warm and soft surrogate that
198 provided comfort but no milk. Given the choice, infant monkeys spent most of their time
199 with the soft, warm version (Shallcross, 2012). However, without their mothers, even

200 the monkeys who clung to the cloth-covered surrogates developed serious behavioral
201 problems later, lending graphic evidence to support the British psychologist John
202 Bowlby's claims about the importance of early maternal care (Shallcross, 2012).

203

204 **ANIMALS SUFFER WHILE THEY ARE BEING STUDIED:**

205 *TORTOROUS PROTOCOLS:*

206 Animals are experimented on using drugs, burning of skin, causing brain damage,
207 implanting electrodes into the brain, maiming, blinding, and other painful and invasive
208 procedures. It can include protocols that cause severe suffering, such as long-term social
209 isolation, electric shocks, withholding of food and water, or repeated breeding and
210 separating of infants from mothers (Specter, 2014). In toxicity testing, animals used in
211 chronic toxicity and carcinogenicity studies receive the test substance daily, seven days
212 a week, for up to two years with no recovery periods. Many, if not most, animals die
213 before the end of the study. Except for chimpanzees, animals who survive their use in
214 research and testing can be killed after the study is completed (Shallcross, 2012).

215 Many animal experiments utilize restraining devices, designed to prevent an animal
216 from moving. Some research projects call for immobilization of specific parts of an
217 animal's body—head and neck, legs and pelvis—while other protocols involve
218 immobilization of an animal's entire body. For example, researchers at several major
219 U.S. universities have all conducted "stress experiments" on rats and mice (Shallcross,
220 2012). These experiments included immobilizing mice and rats in tubes, shocking their
221 feet, suspending them by their tails, and forcing them to swim to avoid drowning
222 (Shallcross, 2012). Researchers claimed these experiments had relevance to human
223 anxiety and depression (Shallcross, 2012). Although restraint is particularly stressful
224 and frustrating for an animal, some experiments are designed to hold animals in partial
225 or total immobilization for months (Shallcross, 2012).

226 Anesthetization, intubation, and euthanasia are also common lab procedures which
227 require extensive training and skill. When improperly performed, these procedures
228 cause extreme pain and discomfort (Shallcross, 2012). For example, if a researcher uses
229 a paralyzing agent on an animal but does not monitor vital signs to make sure it is
230 adequately anesthetized, there is a great chance that the animal is actually experiencing
231 pain but unable to move. Unfortunately, in some cases, the lab personnel often lack the
232 experience and training—and sometimes the sensitivity—needed to avoid unnecessary
233 animal suffering.

234 The areas of xenotransplantation (transplanting cells, tissues, or organs from one
235 species into another species) and genetic engineering also create a great deal of
236 suffering and death for animals. Genetic engineering consumes and destroys untold
237 volumes of animals in attempts to create animals with specific traits. Nonhuman
238 primates, cats, dogs, mice, rats, and others, have all been subjected to genetic
239 manipulation. Many of these animals die, while suffering from abnormalities and other
240 diseased conditions (Moss, 1992).

241 DAILY EXISTENCE:

242 Animals in labs suffer not only pain from protocols, but also severe stress from day-to-
243 day laboratory life (Moss, 1992). They spend their lives in barren cages, unable to make
244 choices or express natural behaviors. Most never experience fresh air or sunshine, only
245 bars and concrete. Those few facilities that provide some outside caging typically rotate
246 the animals, giving them limited and infrequent amounts of time outdoors (Moss, 1992).
247 Standard lab conditions, such as small, crowded cages, lack of enrichment, loud noises,
248 and bright lights out of sync with natural lighting are all known to create stress in
249 animals who in turn show physical symptoms of stress, including chronic inflammatory
250 conditions. Studies show that mice are capable of empathy and become even more
251 stressed when witnessing other mice in distress. Other research documents the long-
252 lasting effects on chimpanzees from the stress and trauma of living in a lab and being
253 used in research and testing (Shallcross, 2012). In 2009, an undercover lab
254 investigation revealed monkeys frantically spinning around and around in their cages,
255 biting open wounds, mutilating themselves, and ripping out their own hair, all because
256 of the chronic psychological distress they endure. The term used for this is “stress-
257 induced psychosis”—laboratories are literally driving these animals crazy. After seeing
258 footage of chimpanzees from this same investigation, famed primatologist Dr. Jane
259 Goodall stated, “In no lab I have visited have I seen so many chimpanzees exhibit such
260 intense fear. The screaming I heard when chimpanzees were being forced to move
261 toward the dreaded needle in their squeeze cages was, for me, absolutely horrifying”.

262 For all animals trapped in labs, their day-to-day existence is traumatic in itself—even
263 without their forced participation in one dreaded protocol after another. They
264 experience ongoing mental and physical suffering from the endless boredom,
265 confinement, fear, and emotional stress of daily laboratory life. Add to this the fear and
266 agony of a procedure, and only then can we start to understand the desperation and
267 pain in which they live, every day—and for most, for their entire lives.

268 LEGAL PROTECTION: REALITY OR RHETORIC:

269 The Animal Welfare Act (AWA) of 1966 (P.L. 89-544) is the only federal law that
270 provides even minimal protection for animals in laboratories. The United States Public
271 Health Service’s (PHS) Policy on the Humane Care and Use of Laboratory Animals
272 covers animals in National Institutes of Health (NIH)-funded research, but the PHS does
273 not conduct inspections itself. Instead, it relies on institutions to inspect their own labs.
274 However, it specifically excludes rats, mice, and birds bred for research, who constitute
275 90-95 percent of animals in labs. For the approximately 10 percent of warm-blooded
276 animals in labs who are covered under the AWA, the law covers animal
277 husbandry only—meaning specific standards for their housing, feeding, and handling,
278 including veterinary care. It does not prohibit any kind of experiment regardless of the
279 amount of pain or distress it might cause. Instead, it requires oversight committees
280 (called Institutional Animal Care and Use Committees [IACUCs]) to review and approve
281 research protocols. These are composed of and overseen by the research facility itself
282 and are widely regarded as “rubber stamp” committees. Their members are primarily
283 animal researchers, and the research facility’s CEO selects everyone on the committee.
284 As a result, IACUCs allow most proposed experiments, regardless of the amount of

285 suffering they inflict. If deemed “necessary” to the study, researchers can even withhold
286 pain medication.

287 According to USDA’s latest available figures (2009), 7.8 percent of all AWA covered
288 animals in labs underwent painful procedures without the benefits of pain relief.
289 However, it is assumed that the degree of pain endured is grossly underreported, as no
290 objective criteria is in place to guarantee accurate perception and reporting of pain and
291 suffering. Under current federal law, the administration of pain relief is discretionary,
292 rather than mandatory. When a researcher or attending veterinarian feels that
293 analgesics, anesthesia, or tranquilizers will confound the results of an experiment, pain
294 relief can be legally withheld. This concept of “necessary pain” is basic to the spirit of
295 the AWA, which specifically states that its intent is not to regulate or restrict the
296 planning and performance of experimental designs and protocols. One career
297 researcher, for example, reported chronic diarrhea in monkeys in labs as “normal”.
298 Another claimed the “rocking back and forth” is something “they just do”—researchers
299 are inured to the suffering animals in labs endure. In short, while the AWA and the
300 IACUC system purports to ensure “humane” treatment of animals in labs, this system is
301 so limited and so plagued with loopholes that these animals have little or no protection.

302 Research shows that people accept animal research only when they think that animals
303 do not suffer, and that it’s scientifically necessary. In fact, they do suffer, and it is not
304 necessary. We can attest to this today in a way that we never could in the past. The New
305 England Anti-Vivisection Society (NEAVS) science team has methodically looked at the
306 use of animals in research and published papers in peer-reviewed journals that
307 demonstrate that animal research is not necessary, is not predictive for humans, and is
308 often irrelevant, inaccurate, or even dangerous for human health. The facts make it clear
309 that we can save animals and humans when we replace animal research with alternative
310 methods that deliver effective, predictive, human-relevant results. In short, we can end
311 the harm and suffering of the animals and better benefit human health.

312

313 **MY INSIGHT OF ANIMAL AND HUMAN PSYCHOLOGY:**

314 According to the research I have done, I have learned a lot about the pros and cons of
315 animal research.

316

317 **THE PROS:**

318 We can get to know them more and understand their behavior. Intelligence of animals
319 can be useful for humans too. We can give our love to them as they give us their love to
320 us. We can get to know their comfort and emotions. Animals can become our best
321 friends if we take care of them.

322

323 **THE CONS:**

324 Firstly, animals are taken far away from their natural habitat and especially family. I
325 was watching Animal Planet, and a researcher was studying hyenas. Compared to the
326 information I had read, his method of researching was the best in my opinion. He
327 studied the hyenas by keeping them in their natural environment and had caged himself
328 instead of the hyenas. We humans can adapt easily by using technology, but animals
329 lack that capability and take time to adapt, and from what I have learned, if an animal is
330 not able to adapt itself to its surroundings, it could be fatal. Another drawback of animal
331 research is that they have are given drugs and medications in some experiments. This
332 could cause a lot of permanent and painful damage to the animal's body. We do need to
333 know more about animals, but we need to be careful, as they are not toys, we can't just
334 break them and try to fix them. They are living beings just like us. They have emotions
335 too.

336

337 **SUMMARY/OPINION:**

338 Animals have a right to respectful treatment...this inherited value is not respected when
339 animals are reduced to being mere tools in scientific experiments. Animals and people
340 are alike in many ways; they both feel, think, behave, and experience pain. Therefore,
341 animals should be treated with the same respect as humans. Yet animals' rights are
342 violated when they are used in research because they are not given a choice. Animals
343 are subjected to tests that are often painful or cause permanent damage or death, and
344 they are never given the option of *not* participating in the experiment. Animals don't
345 willingly sacrifice themselves for the advancement of our race.

346 Animals feel pain in many of the same ways that humans do; in fact, their reactions to
347 pain are virtually identical. Two of the most commonly used toxicity tests are the Draize
348 test and the LD50 test, both of which are infamous for the intense pain and suffering
349 they inflict upon experimental animals. In the Draize test the substance or product
350 being tested is placed in the eyes of an animal, generally a rabbit is used for this test,
351 then the animal is monitored for damage to the cornea and other tissues in and near the
352 eye. This test is intensely painful for the animal, and blindness, scarring, and death are
353 generally the end results. The Draize test has been criticized for being unreliable and a
354 needless waste of animal life. The LD50 test is used to test the dosage of a substance
355 that is necessary to cause death in fifty percent of the animal subjects within a certain
356 amount of time. To perform this test, the researchers connect the animals to tubes that
357 pump huge amounts of the test product into their stomachs until they die. This test is
358 extremely painful to the animals because death can take days or even weeks. According
359 to Orlans, the animals suffer from vomiting, diarrhea, paralysis, convulsion, and internal
360 bleeding (Since death is the required endpoint, dying animals are not put out of their
361 misery by euthanasia. The LD50 test is "scientifically unjustifiable". The precision it
362 purports to provide is an illusion because of uncontrollable biological variables". The
363 use of the Draize test and the LD50 test to examine product toxicity has decreased over

364 the past few years, but these tests have not been eliminated completely. Thus, because
365 animals are subjected to agonizing pain, suffering and death when they are used in
366 laboratory and cosmetics testing, animal research must be stopped to prevent more
367 waste of animal life.

368
369 The testing of products on animals is completely unnecessary because viable
370 alternatives are available (Shallcross, 2012). Many cosmetic companies, for example,
371 have sought better ways to test their products without the use of animal subjects
372 (Shallcross, 2012). In 'Against Animal Testing', a pamphlet published by 'The Body
373 Shop', a well-known cosmetics and bath-product company based in London (Shallcross,
374 2012), the development of products that "use natural ingredients, like bananas and
375 Basil nut oil, as well as others with a long history of safe human usage" is advocated
376 instead of testing on animals. Furthermore, the Draize test has become practically
377 obsolete because of the development of a synthetic cellular tissue that closely resembles
378 human skin (Shallcross, 2012). Researchers can test the potential damage that a
379 product can do to the skin by using this artificial "skin" instead of testing on animals.
380 Another alternative to this test is a product called Eytex. This synthetic material turns
381 opaque when a product damages it, closely resembling the way that a real eye reacts to
382 harmful substances. Computers have also been used to simulate and estimate the
383 potential damage that a product or chemical can cause, and human tissues and cells
384 have been used to examine the effects of harmful substances. Another method, in-
385 vitro testing, is used to perform cellular tests inside a test tube. Each of these alternative
386 tests have been proven to be useful and reliable alternatives to testing products on live
387 animals (Shallcross, 2012). Therefore, because effective means of product toxicity
388 testing are available without the use of live animal specimens, testing potentially deadly
389 substances on animals is unnecessary (Shallcross, 2012).

390 Many people believe that animal testing is justified because the animals are sacrificed to
391 make products safer for human use and consumption. The problem with this reasoning
392 is that the animals' safety, well-being, and quality of life is generally not a consideration.
393 Others respond that animals themselves benefit from animal research. Yet in an article
394 entitled, "Is Your Experiment Really Necessary?", Sheila Silcock, a research consultant
395 for the Royal Society for the Prevention of Cruelty to Animals (RSPCA), states: "Animals
396 may themselves be the beneficiaries of animal experiments. But the value we place on
397 the quality of their lives is determined by their perceived value to humans". Making
398 human's lives better should not be justification for torturing and exploiting animals. The
399 value that humans place on their own lives should be extended to the lives of animals as
400 well.

401 Still other people think that animal testing is acceptable because animals are lower
402 species than humans and therefore have no rights. These individuals feel that animals
403 have no rights because they lack the capacity to understand or to knowingly exercise
404 these rights. However, animal experimentation in medical research and cosmetics
405 testing cannot be justified on the basis that animals are lower on the evolutionary chart
406 than humans since animals resemble humans in so many ways. Many animals,
407 especially the higher mammalian species, possess internal systems and organs that are
identical to the structures and functions of human internal organs. Also, animals have

408 feelings, thoughts, goals, needs, and desires that are like human functions and
409 capacities, and these similarities should be respected, not exploited, because of the
410 selfishness of humans (Moss, 1992). Tom Regan asserts that, “animals are subjects of a
411 life just as human beings are, and a subject of a life has inherent value. They are ends in
412 themselves”. Therefore, animals’ lives should be respected because they have an
413 inherent right to be treated with dignity. The harm that is committed against animals
414 should not be minimized because they are not considered “human”.

415

Conclusion

416

417 Animal testing should be eliminated because it violates animals' rights, it causes pain
418 and suffering to the experimental animals, and other means of testing product toxicity
419 are available. Humans cannot justify making life better for themselves by randomly
420 torturing and executing thousands of animals per year to perform laboratory
421 experiments or to test products. Animals should be treated with respect and dignity,
422 and this right to decent treatment is not upheld when animals are exploited for selfish
423 human gain. After all, humans are animals too. Comfort, love, freedom, their home and
424 nature are the basic thing animals need to survive. But we take them away for our
425 benefit. Give them all they need, and they would live a happy life. They would even
426 cooperate and show you their talents. Think of them as introverts, they are just not
427 ready for the sudden change. Give them time and they would be as close to you as
428 possible.

428

References

429
430 Wachman, Monica. (2018, March 13). Animals That Live in the Canopy Layer of the
431 Rainforest. Sciencing. Retrieved from: <https://sciencing.com/animals-live-canopy-layer-rainforest-6707037.html> - Accessed: November 28, 2018

432
433 Archer, J. (1997). Why do people love their pets. *Evolution and Human Behavior*, 18,
434 237-259.

435 Udell, M. A. R., Dorey, N. R., & Wynne, C. D. L. (2008). Wolves outperform dogs in
436 following human social cues. *Animal Behaviour*, 76, 1767-1773.

437 Groves, C. P. (1999). The advantages and disadvantages of being domesticated.
438 *Perspectives in Human Biology*, 4, 1-12.

439 Specter, M. (2014). Drool. Ivan Pavlov's real quest. *The New Yorker*. November 24,
440 2014. Retrieved from: <http://www.newyorker.com/magazine/2014/11/24/drool> -
441 Accessed: November 28, 2018

442 Samhita, L., & Gross, H. J. (2013). The “Clever Hans Phenomenon” revisited.
443 *Communicative & integrative biology*, 6(6), e27122.

444

445 Agrillo C, Miletto Petrazzini ME. The importance of replication in comparative
446 psychology: the lesson of elephant quantity judgments. *Front Psychol.* 2012; 3:181. doi:
447 10.3389/fpsyg.2012.00181

448

449 McLeod, S. A. (2018, Oct 08). *Pavlov's dogs*. Retrieved from:
450 <https://www.simplypsychology.org/pavlov.html> - Accessed: November 28, 2018

451 Göksel, A. Kelepir, M. & Üntak-Tarhan, A. (2009) Interrogatives in Turkish Sign
452 Language: the specific functions of head tilt, head shake and head nod. Presented at the
453 Workshop on Non-Manuals in Sign Languages, Goethe University, Frankfurt A.M., April
454 2009.

455 Gardner, R. A., & Gardner, B. T. (1969). Teaching sign language to a chimpanzee. *Science*,
456 165 (3894), pp. 664-672.

457

458 Christopher Riley, 2014. Web link:
459 [https://www.theguardian.com/environment/2014/jun/08/the-dolphin-who-loved-](https://www.theguardian.com/environment/2014/jun/08/the-dolphin-who-loved-me)
460 [me](https://www.theguardian.com/environment/2014/jun/08/the-dolphin-who-loved-me),

461 Callaway, E. (2012). Alex the parrot's last experiment shows his mathematical genius.
462 *Nature News Blog*, 20.

463

464 Hunt, G. R., and Gray, R. D. (2004). The crafting of hook tools by wild New Caledonian
465 crows. *Proceedings of the Royal Society of London B: Biological Sciences*, 271 (Suppl 3),
466 S88-S90.

467

468 Moss, C. (1992). *Echo of the elephants: The story of an elephant family*. William Morrow.

469

470 Shallcross, W. (2012). What can be learned from a single case of psychoanalytic infant
471 observation?. In *Infant Observation and Research* (pp. 85-96). Routledge.

472

473