STATE OF NEW YORK
SUPREME COURT COUNTY OF NIAGARA

In the Matter of a Proceeding under Article 70 of the CPLR for a Writ of Habeas Corpus, THE NONHUMAN RIGHTS PROJECT, INC., on behalf of KIKO, Petitioners, v. CARMEN PRESTI, individually and as an officer and director of The Primate Sanctuary, Inc., CHRISTIE E. PRESTI, individually and as an officer and director of The Primate Sanctuary, Inc., and THE PRIMATE SANCTUARY, INC., Respondents.	**AFFIDAVIT OF JAMES KING** Index No.:

STATE OF ARIZONA)
) ss:
COUNTY OF PIMA)

James King being duly sworn, deposes and says:

Introduction and Qualifications

1. My name is James King. I received a B.A. from the University of Arizona in 1959, a M.S. from the University of Wisconsin in 1961, and a Ph.D in Psychology from the University of Wisconsin in 1963. I work and reside in Tucson, Arizona.

2. I submit this affidavit in support of Petitioners The Nonhuman Rights Project, Inc. ("NhRP"), on behalf of Kiko, for a writ of habeas corpus. I am a non-party to this proceeding.

3. I am currently an Emeritus Professor of Psychology at the University of Arizona where I have been a member of the faculty for 43 years. I have regularly taught courses in

animal behavior including *Primate Behavior*, *Animal Behavior*, *Animal Learning*, and seminars on *Evolution and Animal Behavior* and *Biopsychology*. I have directed 14 dissertations and 18 master's theses since 1970 on various topics related to primatology.

4. I have been awarded research grants for the study of primates by NASA, the U.S. Army Research Institute, and the National Institutes of Mental Health, among other organizations.

5. I served as an associate editor of the Journal of Comparative Psychology from 1995-1999. From 1959-1963, I served as a research assistant at the University of Wisconsin Primate Laboratory. I also worked at the Yerkes Regional Primate Research from 1969-1970 as a PHS Special Fellowship.

6. My area of specialization is personality structure and psychological well-being in chimpanzees and other great apes, which I have studied for the past 15 years. I have also studied complex learning and concept formation in squirrel monkeys, capuchin monkeys, rhesus monkeys, orangutans, and chimpanzees. My research has mainly been conducted on captive monkeys and apes at the University of Arizona. I have also done research at the Yerkes Regional Primate Center in Atlanta and at the University of Stirling in Scotland.

7. I have authored two edited books on primate behavior and personality: *Primate Behavior* (1982, New York: Academic Press), and *Personality and Temperament in Non Human Primates* (2011, New York: Springer).

8. I have published over 100 articles on chimpanzees, squirrel monkeys, capuchin monkeys, rhesus monkeys, and orangutans. These articles are published in many of the world's most-cited peer-reviewed scientific journals, including: *Journal of Comparative and Physiological Psychology, Animal Behaviour, American Journal of Primatology, the*

International Journal of Primatology, Journal of Behavioral Genetics, the New England Journal of Medicine, Journal of Genetic Psychology, Animal Perspectives, Animal Learning and Behavior, and *Ecology.* I have also been published in the *Encyclopaedia of Psychology and Neuroscience.* These publications covered topics on the behavior, ecology, welfare, and conservation of primates. Specific topics of these publications include: discrimination learning, concept formation, self stimulation, learning behavior, snake avoidance, sensory capacities, sameness-difference learning-set, learning capacities, mother-child relationships, social behavior sequences, licking patterns, preference differences, chimpanzee personality, chimpanzee happiness, chimpanzee health, imitation and emulation, age and sex effects in human and chimpanzee personality, determinants of longevity, heritability of personality factors, subjective well-being, genetic variation, personality development.

9. I have given numerous presentations of my research in primatology in the United Sates, Scotland, France, Madagascar and Indonesia. My Curriculum Vitae fully sets forth my educational background and experience and is annexed hereto as **"Exhibit A"**.

Basis for Opinions

10. The opinions I state in this affidavit are based on my professional knowledge, education, training, research and field work, as well as my review of peer-reviewed literature. A full reference list of peer-reviewed literature cited herein is annexed hereto as **"Exhibit B"**. In this affidavit I will focus upon the evidence for three relevant characteristics in chimpanzees in the general domains of: (A) autonomy, (B) personality, and (C) emotions.

Opinions

A. Autonomy

11. Autonomous behavior is defined as behavior that reflects a choice and is not based on reflexes, innate behaviors or on any conventional categories of learning such as conditioning, discrimination learning, or concept formation. Instead, autonomous behavior implies that the individual is directing the behavior based on some non-observable internal cognitive process. We cannot directly observe these internal processes in other people or in nonhumans but we can find evidence for them in observable behavior. Evidence for autonomous behavior in humans is not seriously disputed. In chimpanzees the behavioral evidence for autonomy is becoming increasingly conclusive as findings accumulate on their creativity and planning, all characteristics of autonomy.

12. The presence of autonomy in chimpanzees, our closest relative, is consistent with phylogenetic parsimony. That is, the simplest explanation for behaviors in chimpanzees that look autonomous is that they are based on similar psychological capacities as in humans. Biologists dating back to Charles Darwin have emphasized the slow, gradual changes in evolutionary development. Therefore, the presence of any complex cognitive-behavioral process in humans implies the likelihood of a similar but possibly more rudimentary process in apes. These similarities are not only found in the domain of autonomy but also in that of personality and emotion. My research shows the remarkable similarity between chimpanzees and humans in the structure of personality and subjective well-being (or happiness).

B. Phylogenetic continuity of personality

13. The research on chimpanzee personality by my colleagues and I has been based mainly on personality ratings of workers at zoos in the United States, Asia, and Europe. The zoo

workers completed questionnaires asking for ratings of a wide variety of personality traits for each individual chimpanzee. Examples of traits are *timid, depressed, gentle, and cautious*. The questionnaires were similar to those used to assess human personality. Some of our major findings are listed below.

14. *Factor structure.* Statistical analysis of the correlations between items by means of factor analysis indicated that *the basic factors or dimensions characterizing the personality ratings of chimpanzees are remarkably similar to the dimensions of human personality* (King and Figueredo, 1997; Weiss, King, and Perkins, 2006). In addition, there is excellent between-rater reliability and the personality factors are stable over time (King, Weiss, and Sisco, 2008). That is, the identified personality traits are consistent within individual chimpanzees and are reliably observed by different people.

15. *Personality predicts behavior.* Personality factors of chimpanzees are correlated with directly observable behaviors in a way consistent with the meaning of the factors (Pederson, King, and Landau, 2005; Uher and Asendorp, 2008). This finding shows that the personality ratings of chimpanzees have similar meaning, in terms of personality structure, to that in humans.

16. *Personality is heritable.* One of the recurring criticisms of ape personality ratings is that they are anthropomorphic projections of the raters' own personality or represent projections about correlations of human personality traits onto the apes. A demonstration that ape personality factors are significantly heritable would contradict such claims of anthropomorphic bias. We have shown that personality is heritable in chimpanzees (Weiss, King, and Enns; 2002). That is, personality traits in chimpanzees are partly attributable to genetic relationships and, therefore, as in humans, include traits shared by family members.

17. *Personality is independent of raters' language.* The factor structure of chimpanzee personality was not significantly altered when ratings were made by Japanese speakers using a translation of our standard form into Japanese (Weiss et al., 2009). This finding speaks to the universality of the personality ratings of chimpanzees.

18. *Personality is independent of setting.* Two of our studies have shown that the personality factor structure of chimpanzees is largely constant across three different habitats: laboratory, zoological park and wild (King, Weiss, and Farmer, 2005; Weiss, King, and Hopkins, 2007).

19. *Personality changes over time mimic changes in humans.* Human personality differences are now almost uniformly assumed to be best described by five factors: Extraversion, Agreeableness, Conscientiousness, Neuroticism, and Openness (Digman, 1996). Across multiple cultures levels of Extraversion, Neuroticism, and Openness decrease with age while levels of Conscientiousness and Agreeableness increase (McCrae, Costa, et al., 2004). We have found that this age-related mellowing effect also occurs in chimpanzees (King, Weiss, and Sisco, 2008).

20. *Personality is not an effect of rater biases.* An issue that has overhung personality ratings of nonhumans is whether raters' expectations about the correlations between items will influence their ratings. We recently published a paper (Weiss, Inoue-Murayama, and King, 2011), based on a statistical analysis showing that factors based on between-rater differences did not resemble factors based on between-animal differences. This was the most direct evidence to date that our ape personality ratings were not tainted by anthropomorphic expectations.

21. Altogether, our extensive work on personality in chimpanzees is robust, shows a very similar combination of traits to that of humans, and is subject to changes over time similar to that observed in humans.

C. Emotions – Chimpanzees can experience happiness

22. In the past, research on the psychological well-being of animals was focused on the negative pole of the well-being dimension and, therefore, negative emotional experiences. High scores were indicated by a lack of pathological or maladaptive phenomena including behaviors (King and Weiss, 2011). Our questionnaire was directed towards the high end of the well-being dimension, positive feelings, and was based on questions similar to those used for humans. We have used the term "subjective well-being" (SWB) as a stand-in for the term happiness in order to be consistent with the terminology in human personality research. For example, one item asked raters to indicate on a seven-point scale how much the target subject enjoyed interactions with other chimpanzees. We have found:

23. *SWB is reliable and stable over time.* Interrater reliabilities for SWB ratings of chimpanzees are reliable and stable over time (King and Landau, 2003; Weiss, King and Perkins, 2006).

24. *SWB is heritable.* SWB is heritable in chimpanzees (Weiss, King, and Enns, 2002).

25. *SWB is related to personality.* Chimpanzee personality has a high positive correlation with the Extraversion and a high negative correlation with Neuroticism (King and Landau, 2005). This pattern is also present in humans.

26. *SWB undergoes a midlife dip.* A well-documented phenomenon in humans is a decrease in SWB from young adulthood to middle age. After middle age SWB then increases up

to old age. We have recently shown that a similar phenomenon occurs in chimpanzees and a low point at about 30 years (Weiss, King, Inoue-Murayama, et al., 2012). This age is comparable with the low point in humans when the difference in human and chimpanzee is taken into consideration. This "midlife crisis" occurs in chimpanzees rated with English versions of the questionnaire as well as chimpanzees rated on a Japanese version.

27. *SWB predicts longevity.* A large number of human studies have shown that longevity is positively associated with SWB. Similarly, we have shown that SWB has a strong positive effect on longevity of zoo-housed orangutans (Weiss, Adams, & King, 2011). Future studies will include the very closely related chimpanzees and gorillas.

28. To summarize, just as with personality structure, chimpanzees and humans resemble each other in terms of their ability to experience happiness and the way in which it relates to individual personality.

James King

Sworn to before me
this 21 day of November, 2013

Notary Public

State of Arizona County of Pima
Subscribed and sworn before me on 11/21/13
(Date)
(Notary Signature)

CARLOTA LARSON
NOTARY PUBLIC
PIMA COUNTY, ARIZONA
MY COMM. EXPIRES 09-25-16

STATE OF NEW YORK
SUPREME COURT COUNTY OF NIAGARA

In the Matter of a Proceeding under Article 70 of the CPLR for a Writ of Habeas Corpus, THE NONHUMAN RIGHTS PROJECT, INC., on behalf of KIKO, Petitioners, v. CARMEN PRESTI, individually and as an officer and director of The Primate Sanctuary, Inc., CHRISTIE E. PRESTI, individually and as an officer and director of The Primate Sanctuary, Inc., and THE PRIMATE SANCTUARY, INC., Respondents.	Index No.:

STATE OF ARIZONA)
) ss:
COUNTY OF MARICOPA)

1. This Certificate of Conformity is submitted pursuant to New York CPLR 2309(c) and New York Real Property Law § 299-a.

2. I am an attorney duly licensed to practice law in the State of Arizona.

3. I certify that the Affidavit of James King, signed and dated on November 21, 2013, was taken in the manner prescribed by the laws of the State of Arizona.

Dated: this 25th day of November, 2013

Stephanie Nichols-Young
Law Office of Stephanie Nichols-Young
642 N. Third Ave.
Phoenix, AZ 85003

Exhibit: A. to Affidavit of James King sworn to November 21, 2013
Curriculum Vitae (292-300)

October, 2012

CURRICULUM VITAE
James E. King

PERSONAL

Birthdate: November 16, 1937
Birthplace: Baker, Oregon

EDUCATION

University of Arizona, B.A., 1959
University of Wisconsin, M.S., 1961
University of Wisconsin, Ph.D., 1963

Dissertation: "Transfer Relationships Between Learning-set and Concept Formation in Rhesus Monkeys"

Director: Harry F. Harlow

PROFESSIONAL AND ACADEMIC HISTORY

1976-present	Professor, University of Arizona
1967-1976	Associate Professor, University of Arizona
1969-1970	PHS Special Fellowship, Yerkes Regional Primate Research
1963-1967	Assistant Professor, University of Arizona
1959-1963	Research Assistant, University of Wisconsin Primate Laboratory

GRANTS AND AWARDS

1987-1988	Principal Investigator, NASA Contract, Behavior of Rhesus Monkeys during Spaceflight
1985-1986	Principal Investigator, U.S. Army Research Institute Contract Behavioral Sources of Enkephalin Mediated Enhancement of Complex Learning in Monkeys
1978-1981	Principle Investigator, Arizona Alumni Association Research Grant. Signal Detection
1968-1978	Program Director, NIMH Training Grant. Training in Animal Behavior (MN 11286)
	Analysis of Radiographic Images
1969-1970	Public Health Service Special Fellowship. Award for 1 year sabbatical at Yerkes Regional Primate Research Ctr, Atlanta, GA (HD 42963)
1964-1966	Principle Investigator, NIMH Research Grant. Comparative Study of Systematically Varied Learning (MN 10246)
2002-2004	Co-Principle Investigator. Development of a health related database for

captive chimpanzees. Katharine M. Scott Foundation.

COMMITTEE MEMBERSHIP

1995-1999 Associate Editor - Journal of Comparative Psychology

COURSES RECENTLY TAUGHT

Psychology 312	Primate Behavior
Psychology 411	Animal Behavior
Psychology 412	Animal Learning
Psychology 417	Invertebrate Behavior Laboratory
Psychology 596	Seminar in Biopsychology

MASTER'S THESES DIRECTED SINCE 1970

Curtis, Willie M. - The effect of deprivation and overtraining on spatial reversal learning.
Fobes, James L. - Hypothesis behavior analysis of discrimination learning involving preferred and avoided stimuli.
Huber, Charlene B. - Snake avoidance and tool using by Capuchin monkeys.
Kendrick, Daryl R. - Effects of Dopamine (L-Dopa) on aggression in squirrel monkeys in a water competition situation.
Lentz, James L. - The application of sequential state theory to the measurement of performance on three delayed-response tasks by Capuchin monkeys.
Murray, Sarah M. - Snake avoidance in feral and laboratory reared squirrel monkeys.
Roney, Lorna. - A multivariate behavior analysis of Female-Female competition among stump-tailed macaques.
Scanlon, J. - Attention in the discrimination learning of Capuchin monkeys.
Smith, H. J. - Effect of contiguity between stimulus and reinforcer on speed of acquisition and transfer of learning set in squirrel monkeys.
Stevens, J.J. - The effects of reward and nonreward on serial discrimination learning Cebus monkeys.
Thomas, E. D. - Sequential state theory: An analysis of signal detection data yielding measurements of observer attention to relevant information.
Medelis, P. J. H. - Weigl oddity learning by Capuchin monkeys.
Neitz, R. - Sucrose preferences in young and aged Squirrel monkeys.
Landau, V. - Dominance and capital behavior in Squirrel monkeys.
Scott, A. - Effects of response bias on learning and memory tasks in squirrel monkeys.
Daly, K. – Confirmatory factor analysis of personality structure in chimpanzees and humans.
Guggenheim, C. – Personality types in chimpanzees.
Sefcek, J. - - Is the concept of psychopathology relevant to the study of chimpanzee personality?

Schneider, S. Social networks in captive chimpanzees: Pretty pictures and problematic analyses..

DISSERTATIONS DIRECTED SINCE 1970

Fobes, J. L. - A theory of signal detection based upon hypothesis analyses.
Huebner, D. K. - Intra- and intersubject behavioral sequences by differentially socialized squirrel monkeys (Samiri sciureus).
Kendrick, D. R. - Effects of differential lighting conditions on delayed response in Capuchin and squirrel monkeys.
Kirkish, P. A. - Behavioral responses to Haldol and Sinemet in squirrel monkeys.
Landau, V. - Development of fishing and food cleaning behaviors in New World Monkeys.
Lentz, J. L. - Determination of attention in short term memory of Capuchin monkeys.
Michels, R. R. - Effects of postural stability and age on behavioral laterality in squirrel monkeys.
Roney, Lorna. - The Hera strategy: Female competition in stump-tailed macaque monkeys.
Scanlon, J. L. - Attentional mediation in the sameness-difference learning of children.
partially covering string arrays on pattern sting performance of Platyrrhine monkeys.
Scott, A. - Monkeys, memories and movements; effect of aging on short term memory of squirrel monkeys.
Smith, H. J. - Social behavior of the coati (Nasua narica) in captivity.
Roney, L. – Female competition in free ranging rhesus monkeys.
Weiss, A. – Personality and environmental determinants of subjective well-being in chimpanzees.
Schneider, S. Love, hatred, and indifference in chimpanzees: Personality, subjective well-being and dyadic-level behavior in captive chimpanzees (*Pan troglodytes*).

PUBLICATIONS

King, J. E. & Harlow, H. F. (1962). Effect of ratio of trial one reward to nonreward on the discrimination learning of macaque monkeys. Journal of Comparative and Physiological Psychology, 55, 872-875.
King, J. E. (1965). Discrimination and reversal learning in the rock squirrel. Perceptual and Motor Skills, 20, 271-276.
King, J. E. (1966). Transfer relationships between learning-set and concept formation in rhesus monkeys. Journal of Comparative and Physiological Psychology, 61, 416-420.
King, J. E., & Clawson, J. R. (1966). Delayed response by squirrel monkeys under various delay lighting conditions. Psychonomic Science, 6, 429-430.
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Behavior, 4, 308-312.
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in young and aged squirrel monkeys. Physiology and Behavior, 42, 53-57.
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King, J. E. & Landau, V. I. (2003). Can Chimpanzee (*Pan troglodytes)* Happiness be Estimated by Human Observers? Journal of Research in Personality, 37, 1-15.

King, J. E., & Rumbaugh, D. M. (2003). Review of the book *Love at Goon Park: Harry Harlow and the Science of Affection*. New England Journal of Medicine, 348, 670-671.

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Exhibit: B. to Affidavit of James King sworn to November 21, 2013
Reference List of Peer-Reviewed Literature (301-302)

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STATE OF NEW YORK
SUPREME COURT COUNTY OF NIAGARA

In the Matter of a Proceeding under Article 70 of the CPLR for a Writ of Habeas Corpus, THE NONHUMAN RIGHTS PROJECT, INC., on behalf of KIKO, Petitioners, v. CARMEN PRESTI, individually and as an officer and director of The Primate Sanctuary, Inc., CHRISTIE E. PRESTI, individually and as an officer and director of The Primate Sanctuary, Inc., and THE PRIMATE SANCTUARY, INC., Respondents.	**AFFIDAVIT OF TETSURO MATSUZAWA** Index No.:

COUNTRY OF INDIA)
)
STATE OF MAHARASHTRA) ss:
)
CITY OF PUNE)

Tetsuro Matsuzawa being duly sworn, deposes and says:

Introduction and Qualifications

1. My name is Tetsuro Matsuzawa. I reside and work in Kyoto, Japan. I was awarded a Ph.D. in Science from Kyoto University in 1986.

2. I submit this affidavit in support of Petitioners The Nonhuman Rights Project, Inc. ("NhRP"), on behalf of Kiko, for a writ of habeas corpus. I am a non-party to this proceeding.

3. I am currently a Full Professor of Language and Intelligence at Kyoto University and was the Director of the Primate Research Institute of Kyoto University in 2006-2012. I am also the Director of the Center for International Collaboration and Advanced Studies in

Primatology at Kyoto University, which promotes scientific research across disciplines and collaborators.

4. I am currently President of the *International Primatological Society*. I sit on the editorial board of *The Royal Society, Philosophical Transactions B*, and am the Chair of the Scientific Program for the 2016 *International Congress of Psychology*. I am the recipient of several professional honors including the Prince Chichibu Memorial Award for Science in 1991 and the Jane Goodall Award in 2001.

5. My specialization is in chimpanzee intelligence both in the wild and in the laboratory. I have studied tool use in wild chimpanzees in West Africa (Bossou-Nimba, Guinea) since 1986 and have been Director of the on-going laboratory study of captive chimpanzees known as the "Ai-project" since 1978. The "Ai-project" focuses upon language-like skills and the understanding of numbers in a female chimpanzee named Ai, her son Ayumu and three generations of chimpanzees constituting one of the longest-running laboratory research projects on chimpanzee intelligence. This combination of field and laboratory studies provides me with a uniquely comprehensive and in-depth view of chimpanzee intelligence.

6. I have written or co-edited 4 books including: *Primate Origins of Human Cognition and Behavior* (2001, Springer), *Cognitive Development in Chimpanzees* (2006, Springer), *The Mind of the Chimpanzee: Ecological and Experimental Perspectives* (2010, University Of Chicago Press), and *The Chimpanzees of Bossou and Nimba* (2011, Springer).

7. I have published 123 peer-reviewed scientific articles on cognition, intelligence, development, and welfare of chimpanzees and other primates in the world's most prominent scientific journals: *Nature*, *Proceedings of the National Academy of Sciences*, *Journal of Comparative Psychology*, *International Journal of Primatology*, *American Journal of*

NOTARY H.V.MOHAN BANGALORE GOVT. OF INDIA

Primatology, Current Biology, Animal Cognition, Animal Behaviour, American Journal of Physical Anthropology, among others. I have also authored and co-authored 17 book chapters. The specific topics I have researched and written about on chimpanzees include: tool-making and use, culture, memory of numerals, facial perception, caregiving, development and maturation, food sharing, handedness, gaze following, and categorization and classification of colors and objects.

8. I have given over 58 invited talks at international venues in countries such as: Austria, China, France, Germany, Korea, Italy, Japan, Mexico, Scotland, Switzerland, the United Kingdom and the United States, among others. I continue to regularly give both local and international presentations at academic conferences, wildlife conservation meetings, and other scientific venues. My Curriculum Vitae fully sets forth my educational background and experience and is annexed hereto as **"Exhibit A"**.

Basis for Opinions

9. The opinions I state in this Affidavit are based on my professional knowledge, education, training, and over 37 years of laboratory research and field work with chimpanzees, as well as my review of peer-reviewed literature about primatology published in the world's most respected journals, periodicals and books that are generally accepted as authoritative in the field of primatology, many of which were written by myself and colleagues with whom I have worked for many years and whose research and field work I am personally familiar with. A full reference list of peer-reviewed literature cited herein is annexed hereto as **"Exhibit B"**.

Opinions

10. As chimpanzees and humans share close to 99% of their DNA, their brains, too, are very similar (Semendeferi and Damasio, 2000). There are a number of shared characteristics in the brain that are relevant to such capacities as self-awareness and autonomy as well as

general intelligence. Both have larger brains than expected for their body size (Armstrong, 1985; Bauchot and Stephan, 1969; Bronson, 1981). This means they both evolved to possess above-average mental abilities compared with other species of the same body size. Both share similar circuits in the brain which are involved in language and communication (Gannon, Holloway, Broadfield, and Braun, 1997; Taglialatela, Russell, Schaeffer, Hopkins, 2008; and see below). Both have evolved large frontal lobes of the brain, which are intimately involved in the capacities for insight and foreplanning (Semendeferi and Damasio, 2000). Both share a number of highly specific cell types which are thought to be involved in higher-order thinking (see below) and chimpanzee and human brains also share a number of important functional characteristics related to sense of self. Finally, both human and chimpanzee brains are similar in terms of how the brain develops and matures, indicating that chimpanzees and humans go through similar cognitive developmental stages.

11. Developmental delay (a long protracted period of brain development over many years) is a key feature of human brain evolution and is thought to play a role in the emergence of complex cognitive abilities, such as self-awareness, creativity, foreplanning, working memory, decision making and social interaction. Delayed development of the brain, and specifically the prefrontal cortex, provides a longer period in which this part of the brain may be shaped by experience and learning (Furster, 2002; Goldberg, 2002). Likewise, chimpanzee brains exhibit a very similar level of developmental delay in the prefrontal cortex, leading to the neuroanatomical basis for such high-level capacities as self-awareness, forethought, decision-making, and working memory in chimpanzees (Sakai et al., 2011; 2010). Consistent with these similar functions in humans and chimpanzees, chimpanzee infants share some common mental features and patterns with human infants (Matsuzawa, 2007). These features include the ways in which

mothers and infants interact and use social smiling and mutual gaze (looking into each other's eyes) as ways of strengthening their bond (Tomonaga et al., 2004) as well as how and when they first start to manipulate objects, which is related to their shared capacity for tool-making and use.

12. One of the hallmarks of sophisticated communication and even language-like capacities is brain asymmetry. In humans the left and right parts of the brain have different shapes which are related to language capacities. Furthermore, these brain asymmetries are correlated with handedness. That is, most humans are right-handed and process language in the left hemisphere. This is referred to as a "population-level right-handedness." Studies of the anatomy of the brain reveal that chimpanzees possess very similar patterns of asymmetry (Cantalupo and Hopkins, 2001; Dadda, Cantalupo and Hopkins, 2006; Gannon, Holloway, Broadfield and Braun, 1997). Furthermore, chimpanzees exhibit population-level right-handedness in captivity (Hopkins et al., 2010) as well as in patterns of tool use in the wild (Humle and Matsuzawa, 2009). These overall findings point to a key similarity in the way chimpanzee and human brains are structured, particularly in ways that are relevant to language and communication.

13. Language is a volitional process in humans that involves creating intentional sounds for the purpose of communication, and is, therefore, a reflection of autonomous thinking and behavior. Findings regarding functional aspects of the chimpanzee brain demonstrate volitional control over their vocalizations as well. Certain sounds are produced by chimpanzees selectively to capture the attention of an inattentive audience (Hopkins et al., 2007). These sounds are produced almost exclusively in the presence of an audience and are, therefore, under volitional control as they serve the purpose of informing others about the presence of various items, such as food or a play object or tool. Not only do chimpanzees create purposeful

vocalizations, like humans, their brain responds differently to their own name than other sounds. In a study of brain wave patterns, one captive chimpanzee, "Mizuki", showed specific brain wave responses to the sound of her own name, suggesting that this response might signify self-relevance in chimpanzees as for humans. Her name may have evoked a specific memory, emotion or mental representation (Ueno et al., 2009).

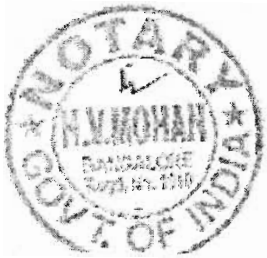
14. Further evidence for the similarity between human and chimpanzee brains comes from the finding that they both possess a specialized type of cell – known as a spindle cell (or von Economo neuron) – in the same area of the brain. This area, known as the anterior cingulate cortex is involved in emotional learning, the processing of complex social information, decision-making, awareness, and, in humans, speech initiation. Therefore, the presence of spindle cells in both chimpanzees (and other great apes) and humans strongly suggest they share a number of these higher-order brain functions (Allman et al., 2011; Hayashi et al., 2001).

15. The concept of self is an integral part of being able to have goals and desires, intentionally act towards those goals, and the ability to understand whether they are satisfied or not. There is abundant and robust evidence that chimpanzee possess a sense of self, as they have repeatedly demonstrated the ability to recognize themselves in mirrors (Gallup, 1970; Povinelli et al., 1993) and show a number of capacities which stem from being self-aware, such as metacognition, that is, the ability to think about and reflect upon one's own thoughts and memories (Beran et al., 2013; Call, 2010; Call and Carpenter, 2001). For instance, when given a task in which the identity of a food item is a critical piece of information needed to obtain a reward, chimpanzees, like humans, first check a container they are unfamiliar with before making their choice. They show efficient information-seeking behavior that strongly suggests they are aware of what they know and do not know (Beran et al., 2013). They, like human

children, also know when they have enough visual information to complete a task (Call and Carpenter, 2001), and, also know that they could be wrong about the information they have and, again like human children, will check if they are uncertain (Call, 2010). All of these abilities are related to self-monitoring and self-reflection in chimpanzees as in humans.

16. The ability to distinguish actions and effects caused by oneself from events occurring in the external environment is called "self-agency" and is a fundamental component of autonomy and purposeful behavior. Chimpanzees are able to distinguish between movement of an object, e.g., a computer cursor, controlled by themselves and motion caused by someone else. These and many other similar findings demonstrate that chimpanzees and humans share the fundamental cognitive processes underlying the sense of being an independent agent (Kaneko and Tomonaga, 2011).

17. Not only do chimpanzees reflect upon their own thoughts and states of knowledge but they understand the mind's and experience of others. For instance, chimpanzees cannot only imitate the actions of others but anticipate the intentions of others when watching a human or another chimpanzee try to complete a task (Myowa-Yamakoshi and Matsuzawa, 2000). Chimpanzees know what others can and cannot see (Hare et al., 2000, 2001). Chimpanzees know when another's behavior is accidental or intentional (Call and Tomasello, 1998; Call et al., 2004). And chimpanzees use their knowledge of others' perceptions tactically to deceive another chimpanzee and obtain hidden food (de Waal, 2005; Hirata and Matsuzawa, 2001). In situations where two chimpanzees are in competition for hidden food they show a number of strategies and counter-strategies to throw each other "off the trail" and obtain the food for themselves (Hirata and Matsuzawa, 2001). This kind of complexity in understanding others' minds is key evidence of being aware of one's own mind and that of others, as chimpanzees clearly are.



18. Finally, chimpanzees who were shown videos of other chimpanzees yawning or just showing open-mouth facial expressions that were not yawns, showed higher levels of yawning in response to the yawn videos but not to the open-mouth displays but not the other (Anderson et al., 2004). These findings are very similar to contagious yawning effects observed in humans, and are thought to be based on the capacity for empathy, the ability to put oneself in another's situation. Contagious yawning in chimpanzees provides even further evidence that they possess very complex levels of self-awareness and empathic abilities.

19. Numerosity, the ability to understand numbers as a sequence of quantities, requires not only sophisticated working memory (in order to keep numbers in mind) but also a conceptual understanding of a sequence, which is closely related to mental time travel (thinking about something in the future) and planning out the right sequence of steps towards a goal, two critical components of autonomy. Not only do chimpanzees excel at understanding sequences of numbers but they understand that Arabic symbols ("2", "5", etc.) represent discrete quantities, outperforming humans in some of these tasks (see below).

Sequential learning can be defined as the ability to encode and represent the order of discrete items occurring in a sequence (Conway and Christiansen, 2001). Sequential learning is critical for human speech and language processing, the learning of action sequences, or any task that requires putting items into an ordered sequence. Chimpanzees can count or sum up arrays of real objects or Arabic numerals (Beran et al., 1998; Beran and Rumbaugh, 2001; Boysen and Berntson, 1989; Rumbaugh et al., 1987) and display the concepts of ordinality and transitivity (the logic that if A = B and B = C, then A = C) when engaged in numerical tasks, demonstrating a real understanding of the ordinal nature of numbers (Boysen, Berntson, Shreyer, and Quigley, 1993). Chimpanzees also understand proportions (e.g., 1/2, 3/4, etc.) (Woodruff and Premack,

1981). Chimpanzees are able to learn to name (using a symbol-based computer keyboard) the number, color and type of object shown on the screen (Matsuzawa, 1985). They can use a computer touch screen to count from 0 to 9 in sequence (Inoue and Matsuzawa, 2007; Kawai and Matsuzawa, 2000; Tomonaga and Matsuzawa, 2000). Moreover, they have an understanding of the concept of zero, using it appropriately in ordinal context (Biro and Matsuzawa, 2001). Moreover, chimpanzees display indicating acts" (pointing, touching, rearranging) similar to what human children display when counting up a sum. So just as human children touch each item when counting an array of items, chimpanzees do the same thing, suggesting further similarity in the way numbers and sequences are conceptualized in chimpanzees and humans (Boysen, Bernston, Shreyer, and Hannan, 1995).

20. Not only do chimpanzees understand numbers and sequences, but their working memory of numbers is superior to that of adult humans. Working memory (or, short-term memory) is the ability to temporarily store, manipulate and recall items (numbers, objects, names, etc.). In other words, working memory has to do with how good someone is at keeping several items in mind at the same time. Working memory tasks require monitoring (i.e., manipulation of information or behaviors) as part of completing goal-directed actions in the setting of interfering processes and distractions. The cognitive processes needed to achieve this include attention and executive control (reasoning, planning and execution). Chimpanzees were shown the numerals 1-9 spread randomly across a computer screen. The numbers appeared for a very limited duration (210, 430a and 650 milliseconds and then were replaced by white squares, which had to be touched in the correct order (1-9). To complicate matters, in another version of the task, as soon as the chimpanzees touched the number 1, the remaining either were immediately masked by white squares. In order to successfully complete the task they had to

remember the location of each concealed number and touch them in the correct order. The performance of a number of the chimpanzees on these seemingly impossible memory tasks was not only accurate but much better than that of human adults, who could not even complete most of the versions of the task (Inoue and Matsuzawa, 2007). Therefore, the chimpanzees have an extraordinary working memory capability for numerical recollection better than that of adult humans, which underlies a number of mental skills related to mental representation, attention, and sequencing.

T. Matsuzawa

Tetsuro Matsuzawa

Sworn to before me
this 23rd day of November, 2013

23 NOV 2013

Notary Public

NOTARY H.V.MOHAN BANGALORE GOVT. OF INDIA

SWORN TO BEFORE ME
H.V. MOHAN, B.A., LL.B.,
NOTARY (APPTD.), GOVT. OF INDIA
#1532, 2nd Main, N.G. Layout,
Vijayanagar, Bangalore-560 040.
23-11-13.

GOVT OF KARNATAKA
HAS DISCONTINUED THE
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SL. No. 266
Page No. 38
Book No. I
Date 23-11-13

MY COMMISSION EXPIRES
ON 22-10-2015

Curriculum Vitae

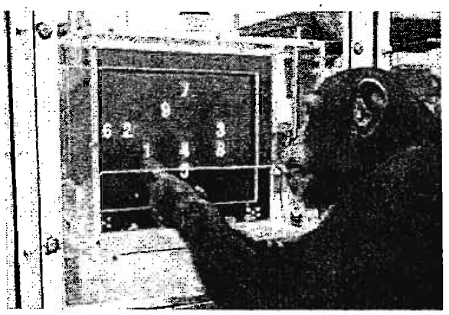
Tetsuro Matsuzawa

Current Position
Professor, Section of Language and Intelligence,
Director, Center for International Collaboration and Advanced Studies
Primate Research Institute, Kyoto University
President of the International Primatological Society
Editorial Board of The Royal Society, *Philosophical Transaction B*
Chair of Scientific Program of International Congress of Psychology 2016

Birth day: 15th Oct. 1950, born in Japan (Nationality: Japanese)
1969: Entered Kyoto University (Philosophy major)
1974: Graduated the Faculty of Letters, Kyoto University; Entered Graduate School of Kyoto University (Psychology major): PhD (Science) from Kyoto University in 1986
1976-present: Primate Research Institute of Kyoto University
(1976: Assistant professor, 1987: Associate professor, 1993: full professor, 2006-2012: Director)
Major: Primatology, Psychology, especially establishing "Comparative Cognitive Science"

Research Summary
Matsuzawa has been studying chimpanzee intelligence both in the laboratory and in the wild. The laboratory work is known as "Ai-project" since 1976. He has also been studying the tool use in the wild chimpanzees at Bossou-Nimba, Guinea, West Africa, since 1986. Matsuzawa tries to synthesize the field and the lab work to understand the nature of chimpanzees. He published journal papers and also the books such as "Primate origins of human cognition and behavior", "Cognitive development in chimpanzees", "The chimpanzees of Bossou and Nimba". He also published several popular books to the public too, that have been translated into Chinese and Korean. He got several prizes including Prince Chichibu Memorial Award for Science in 1991, Jane Goodall Award in 2001, and The Medal with Purple Ribbon in 2004.

Please see the web site: http://www.pri.kyoto-u.ac.jp/ai/



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Invited talks **(2004-2013)**

2013

1) Conakry University, Jan 4, Conakry, Guinea

2) AAAS, Feb 15, Boston, USA

3) Malaysia Science University, Department of Biology, March 5, Penang, Malaysia

4) Malaysia Science University, Department of Education, March 6, Penang, Malaysia
5) Kunming University of Science and Techonology, March 24, Kunming, Yunnan, China
6) Kunming Institute of Zoology, March 25, Kunming, Yunnan, China
7) Southwest Forestry University, Kunming, Yunnan, China
8) Yunnan University of Finance and Economics, March 26, Kunming, Yunnan, China
9) Royal University of Bhutan, May, May 5, Thimpu, Bhutan
10) Archives Jean Piaget, University of Geneve, May 14, Geneve, Switzerland
11) University of Neuchatel, May 15, Neuchatel, Switzerland
12) University of St Andrews, May 20, St Andrews, Scotland, UK

2012
1) American Psychological Association, Aug 2, Florida, USA
2) International Primatological Society, Aug 15, Cancun, Mexico
3) President plenary, International Primatological Society, Aug 16, Cancun, Mexico
4) University Autonoma Metropolitana-Iztapalapa, Aug 20, Mexico City, Mexico
5) Ecole Normale Superieure, Nov 5, Paris, France
6) Le Muséum national d'Histoire naturelle, Nov 8, Paris, France
7) International Institute of Advanced Studies, Dec 8, Tokyo, Japan

2011
1) Malaysia Science University, Department of Biology, Feb 17, Penang, Malaysia
2) Boreneo Rainforest Lodge, Malaysia-Sabah University, March 26, Danum Valley, Malaysia
3) Harvard University Dept of Psychology and Dept of Anthropology, April 27, Boston, USA
4) New York Consortium for Primatology, April 28, New York, USA
5) New York City University, April 29, New York, USA
6) University of Pennsylvania, Department of Psychology, May 2, Philadelphia, PA, USA
7) UCL, Institute of Child Health, May 17, London, UK
8) Cambridge University, Department of Anthropology and Archaeology, May 18, Cambridge, UK
9) Tamagawa-CALTEC joint symposium on Neuroscience, June 7, Kyoto, Japan
10) Association for the Scientific Study of Consciousness (ASSC15), June 12, Kyoto, Japan
11) Nairobi Workshop on Lithic Techonology, Nairobi National Museum, Aug 6, Nairobi, Kenya
12) Wellcome Trust School on Biology of Social Cognition, Cambridge, UK
13) Ecole Normale Superieure, Paris, France

2010
1) i-Brain symposium, University of Ghent, March 6, Brussels, Belgium
2) Seoul National Zoo, April 28, Seoul, Korea
3) Ewha Womans University, April 29, Seoul, Korea
4) UCL, Birkbeck and Institute of Cognitive Neuroscience, May 18, London, UK
5) Cold Spring Harbor Laboratory School on Biology of Social Cognition, July 15, CSHL, NY,

USA

6) International Society for the Study of Behavioral Development (ISSBD), July 21, Lusaka, Zambia

7) International Primatological Society, September 13, Kyoto, Japan

2009

1) Chimpanzee mind: a combining effort of fieldwork and laboratory work. 2009 AAAS Annual Meeting. February 12-16, Chicago, USA.

2) ESF-JSPS Frontier Science Conference Series for Young Researchers. February 28, Napoli, Italy.

3) Chimpanzee Mind. The Primate Mind, The "Ettor Majorana" symposium, June 4-7, Erice, Italy.

2008

1) Chimpanzee mind: a combining effort of fieldwork and laboratory work. Decade of the Mind3. May 7, Des Moines, USA.

2) Comparative cognitive science: trade-off theory of memory and symbolization in humans and chimpanzees. ASSC 12th Annual Meeting. June 21, Taipei, Taiwan.

3) Chimpanzee mind: evolution of human mind viewed from panthropology. XXIX International Congress of Psychology. July 24, Berlin, Germany.

4) Trade-off theory of memory and symbolization in humans and chimpanzees. International primatological society XXII. August 5, Edinburgh, UK.

2007

1) The history of the understanding chimpanzees conference series. The Mind of the Chimpanzee: An International Multidisciplinary Conference on Chimpanzee Cognition. March 22-25, Chicago, USA.

2) Cognitive development in chimpanzees: A synthesis of field and lab study. Comparative Cognition in Context Group. March 29, Toronto, Canada.

2006

1) Numerical processing in chimpanzees. The 24th European Workshop on Cognitive Neuropsychology. January 22-27, Bressanone, Italy

2) Green corridor: An attempt at saving chimpanzees in Bossou and Nimba. The Symbol of Collaboration between Guinea and Japan: Bossou 30 ans. November 27-29, Conakry, Guinea

2005

1) Animal behavior about number processing. NUMBRA/ESCOP Summer School "Neuroscience of number processing". July 3-10, Erice, Italy.

2) How do animals think? European Forum Alpbach. August 18-25, Alpbach, Austria.

2004

1) On HOPE project. The signing ceremony of JSPS and MPG. February 12, Munich, Germany.

2) Prerequisites of cultural transmission in chimpanzees. 21COE International Symposium on African Great Apes: Evolution, Diversity, and Conservation. March 4, Kyoto, Japan.

3) HOPE: A project of KUPRI and MPIEVA 2004-2009. First International Workshop of HOPE. March 6, Kyoto, Japan.

4) The mind of the chimpanzee: In the wild and in captivity. ROH Public Symposium on "Sequencing the Chimpanzee Genome: What Have We Learned?" March12, La Jolla, CA, USA.

5) Cognition and personality in chimpanzees. ROH Expert Meeting on "Sequencing the Chimpanzee Genome: What Have We Learned?" March 13, La Jolla, USA.

6) Conservation of wild chimpanzees in West Africa. The 1st Meeting of the Section on Great Apes of the IUCN/SSC Primate Specialist Group. 17-19 April, Chicago, USA.

EXHIBIT B

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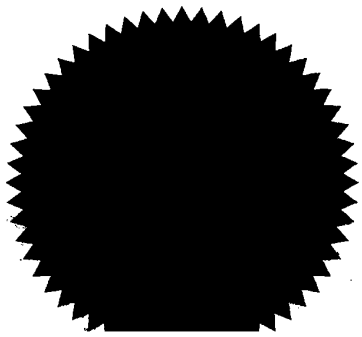
Certificate of Conformity

I, Peter Coleman Fletcher of Cambridge, England, Notary Public duly authorised admitted and sworn, and practising within the United Kingdom and Northern Ireland do herby certify and affirm under penalty of perjury that I witnessed the signature of Professor William C. McGrew as applied to the Affidavit attached to this Certificate, which was signed and dated on 21st November 2013.

I confirm that the manner in which the Certificate was signed was, and is, in accordance with, and conforms to, the Laws for taking oaths and acknowledgements in England.

Peter Coleman Fletcher

Notary Public
21/11/13



APOSTILLE
(Convention de La Haye du 5 octobre 1961)

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5. at á / en: London	**6. the** le / el día: 22 November 2013
7. by par / por	Her Majesty's Principal Secretary of State for Foreign and Commonwealth Affairs
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STATE OF NEW YORK
SUPREME COURT COUNTY OF NIAGARA

In the Matter of a Proceeding under Article 70 of the CPLR for a Writ of Habeas Corpus, THE NONHUMAN RIGHTS PROJECT, INC., on behalf of KIKO, Petitioners, v. CARMEN PRESTI, individually and as an officer and director of The Primate Sanctuary, Inc., CHRISTIE E. PRESTI, individually and as an officer and director of The Primate Sanctuary, Inc., and THE PRIMATE SANCTUARY, INC., Respondents.	**AFFIDAVIT OF WILLIAM C. McGREW** Index No.:

UNITED KINGDOM)
)
COUNTRY OF ENGLAND) ss:
)
CITY OF Cambridge)

William C. McGrew being duly sworn, deposes and says:

Introduction and Qualifications

1. My name is William C. McGrew. I reside and work in Cambridge, England. I was awarded a D.Phil. in Psychology from the University of Oxford in 1970, a Ph.D. from in Social Anthropology from the University of Stirling (Scotland) in 1990, and a Ph.D in Biological Anthropology from the University of Cambridge in 2009.

2. I submit this affidavit in support of Petitioners The Nonhuman Rights Project, Inc. ("NhRP"), on behalf of Kiko, for a writ of habeas corpus. I am a non-party to this proceeding.

3. I am currently Emeritus Professor of Evolutionary Primatology in the Division of Biological Anthropology, Department of Archaeology and Anthropology, University of Cambridge. Since 1972 I have taught the following courses (in reverse chronological order): Cultural Primatology, Apes as Models for Human Evolution, Primate Socio-Ecology at the University of Cambridge; Behavioral Ecology and Conservation Biology, Human Evolutionary Ecology, Mammalogy, Origins of Human Material Culture, and Socio-Ecology of Primates at Miami University (Ohio), Socio-Ecology of Primates at Earlham College (Indiana), Animal Behaviour, Behavioral Primatology, and Developmental Psychology at University of Stirling.

4. I was elected a Fellow of the Royal Society of Edinburgh in 2003 and the American Association for the Advancement of Science in 2005. I am a recipient of the Howells Prize (American Anthropological Association), Prix Delwart (Royal Academy of Sciences, Belgium), and Osman Hill Medal (Primate Society of Great Britain). I have held visiting appointments at the University of California-Berkeley, University of New Mexico, University of North Carolina-Charlotte, Tulane University, as well as the Collegium Budapest (Hungary), College de France (Paris), and Hanse-Wissenschaftskolleg (Delmenhorst, Germany).

5. I have served on the IUCN-SSC Primate Specialist Group, Africa and Great Apes since 2004 and on the Scientific Board, International Primate Protection League since 1977. I served on the Board of Directors of Chimp Haven, Inc. from 1999-2005 and the Council and Executive Committee of the Royal Zoological Society of Scotland in 1975. I have served on the editorial boards of the following scientific journals: *American Journal of Primatology* (1991 - 1999), *Folia Primatologica* (1989 -2009), the *International Journal of Primatology* (1995 - 2000) and *Primates* (1985 - present).

6. My specialization is in the great apes, and especially the study of the behaviour and ecology of chimpanzees. I have done field research on chimpanzees and bonobos from 1972-2012, in six African countries. These studies have spanned the species' range from West Africa (Senegal and Guinea) to Central Africa (Gabon and Congo-Kinshasa) to East Africa (Tanzania and Uganda). I have collected data on wild chimpanzees at more research sites than any other scientist. I have done behavioural research on captive chimpanzees in laboratories, sanctuaries, wildlife parks, and zoological gardens.

7. I have written or co-edited 10 books, seven of which are relevant here, including: *Chimpanzee Material Culture* (1992, Cambridge University Press); *Topics in Primatology. Vol.1. Human Origins* (1992, University of Tokyo Press); *Chimpanzee Cultures* (1994, Harvard University Press); *Great Ape Societies* (1996, Cambridge University Press); *The Cultured Chimpanzee* (2004, Cambridge University Press), *Chimpanzee Behavior in the Wild* (2010, Springer); *The Evolution of Human Handedness* (2013, Wiley). Some have been translated into such languages as Italian, Japanese, and Slovenian.

8. I have published 162 articles and book chapters on the behaviour, ecology, welfare, or conservation of monkeys and apes, including 101 peer-reviewed articles in the world's most-cited scientific journals: *Nature, Science, Proceedings of the National Academy of Sciences USA, Proceedings of the Royal Society, Philosophical Transactions of the Royal Society, Evolutionary Anthropology, American Journal of Physical Anthropology, Animal Behaviour, Animal Cognition, Current Anthropology, Current Biology, Trends in Cognitive Science*, as well as more specialised academic periodicals, 44 chapters in edited book volumes, and the rest in the popular press. These publications have covered 15 species of non-human primates, from common marmoset to chimpanzee and gorilla. Specific topics of these publications include: culture, tool-use, diet, sexual

behaviour, sex differences, birth, predation, parasites, social organisation, ranging, kinship, parental behaviour, environmental enrichment, rehabilitation, food-sharing, mating systems, handedness, seasonality, genetics, bipedality, activity budgets, skeletal structure, psycho-pathology, vegetation ecology, archaeology, alcohol ingestion, and insectivory.

9. I regularly give invited lectures and take part in international symposia in primatology. Over the last 40 years, such speaking engagements have averaged about 4 per year. This does not count many more research talks given at universities or at regional, national or international conferences. These lectures and symposia have taken place in: Austria, Belgium, Canada, England, France, Germany, Guinea, Indonesia, Italy, Japan, Mexico, Portugal, Romania, Russia, Scotland, Singapore, South Africa, Spain, Switzerland, and USA. My Curriculum Vitae fully sets forth my educational background and experience and is annexed hereto as **"Exhibit A"**.

Basis for Opinions

10. The opinions I state in this Affidavit are based on my professional knowledge, education, training, and 40 years of research and field work with chimpanzees, as well as my knowledge of peer-reviewed literature about primatology published in the world's most respected journals, periodicals and books that are generally accepted as authoritative in the field of primatology, many of which were written by myself and colleagues with whom I have worked for many years and with whose research and field work I am personally familiar. A full reference list of peer-reviewed literature cited herein is annexed hereto as **"Exhibit B"**.

Opinions

11. The chimpanzee (and its sister species, the bonobo) is more closely related to human beings than it is to the other African ape, the gorilla. Of all living organisms, these apes are

the ones with whom we last shared a common ancestor. Thus, the chimpanzee is humankind's closest living relative, and vice versa (Goodman, 1999).

12. Chimpanzees resemble human beings in physiological and anatomical ways. Their blood is interchangeable with human blood, such that a transfusion from a human being could save a chimpanzee's life (or vice versa), so long as the blood groups are properly matched (Segurel et al., 2012).

13. The volume of the brain of the chimpanzee is of comparable size to that of the most recent (but extinct) member of the human evolutionary lineage, *Homo floresiensis* ('The Hobbit') of Indonesia, which lived until as recently as 18,000 years ago (Brown et al., 2004).

14. Chimpanzees' performance on *intelligence* tests is equivalent to that of preschool-aged (3&4 years-old) children, especially in physical intelligence, i.e. object manipulation Matsuzawa et al., 2006).

15. One of the most important indicators of intelligence in species, including chimpanzees, is the capacity for tool-making and use. Tool-making may imply complex problem-solving skills and an understanding of means-ends relations and causation, as it requires making choices, often in a specific sequence, towards a predefined goal, which is a key aspect of intentional action. Chimpanzees demonstrate intelligent tool-making and use in both nature and captivity, many examples of which are described in the following paragraphs. In nature they make and use tools of vegetation and stone in daily life for hunting, gathering, fighting, play, communication, courtship, hygiene and socializing (McGrew, 1992; 2010, 2013). Tool-making and use is a chimpanzee species universal, found in all populations studied over the long-term.

16. Chimpanzees make and use complex tools that require them to utilize two or more objects towards a single goal. An example is using one stone as a hammer and another as an anvil

for cracking hard nuts (Carvalho et al., 2009). Chimpanzees also make compound tools, in which two or more components are combined as a single working unit. Examples include the leaf sponge in which several fresh leaves are compressed into a single absorbent mass that allows water to be extracted from tree holes (Sousa et al., 2009), and, the wedge stone, in which chimpanzees insert a stone under an anvil to level its working surface to increase its efficiency (Matsuzawa, 1991). Composite tool use such as this is virtually unknown in other nonhuman species and reflects the fact that chimpanzees have the mental capacity to combine components of their environment in appropriate ways to attain a desired outcome. These capacities also involve making adjustments to existing circumstances in order to attain a goal and demonstrating that chimpanzees desire certain outcomes over others and work to achieve them.

17. Chimpanzees also use "tool sets," which involve using two or more tools in an obligate sequence to achieve a single goal. For example, they have been known to use a set of five objects – pounder, perforator, enlarger, collector, and swab – to obtain honey (Boesch et al., 2009). This kind of sophisticated tool-use involves choosing the appropriate objects in a complex hierarchical sequence in order to obtain a goal which is kept in mind throughout the process. This kind of sequencing and mental representation is a hallmark of intentionality and self-regulation. And, chimpanzees have taken tool-making and use a step further into a realm previously thought to be unique to humans, that is, culture.

18. Culture is behavior that is learned socially (learned by watching others), is normative (represents something most individuals do), and collective (characteristic of a group or community) (McGrew, 2004). In other words, culture is a set of behaviors that is transmitted by social and observational learning (learning by watching others), which becomes characteristic of a certain group or population. Culture is a hallmark of human intelligence and is based on several

high-level cognitive capacities, including imitation (the direct mimicking of bodily actions), emulation (learning about the results of someone else's actions, then achieving those results in another way) and innovation (producing novel ways to do things and combining known elements in new ways) all of which chimpanzees share (see below).

19. Decades of observational field research in various locations in Africa have produced an overwhelming amount of evidence that wild chimpanzees possess different cultural traditions which they pass on from one generation to the next. These chimpanzee traditions meet the same criteria used to identify human culture. There are three general cultural domains found in humans and chimpanzees: 1) material culture, which is defined as the use of one or more physical objects as a means to achieve an end, 2) social culture, which is defined as behaviors that allow individuals to develop and benefit from social living, and 3) symbolic culture, which is defined as special communicative gestures and vocalizations which are only arbitrarily, i.e., symbolically, associated with certain intentions and behaviors (Whiten, 2011; McGrew, 2004).

20. With respect to the tool-making and using aspect of material culture, while all wild chimpanzees make and use tools, each chimpanzee group makes and uses a unique combination of tools known as a "tool kit." (McGrew,1992, 2010; McGrew, Tutin and Baldwin, 1979). A chimpanzee tool kit is a unique set of about 20 different tools which are used for various functions in daily life. These include tools used for foraging and processing food, such as specialized sticks to open up termite mounds, stems used as probes in ant nests, sticks to get marrow out of the bones of dead animals, stone "hammer and anvil" to crack nuts, among a wide variety of others. Tools are also made and used for personal comfort and hygiene, including using leaves to clean the body, using certain stems to comb through hair, using sticks to clear the nasal passages and using a leafy twig to fan away flies, among many others. Tools also include those used for nest building (for

sleeping) which involve specialized ways of bending branches and sticks to make a comfortable and secure sleeping nest in the trees. These tool kits vary from group to group, are passed down by observing others performing the tasks and are found in a wide range of ecological locations, from savanna to rainforest. Tool-making is not genetically determined or fixed, that is, it is not "hard-wired" behavior or simple reflex. Rather, tool-making depends on the same mental abilities that underlie human culture – learning from others and making specific decisions about how to do things. Each chimpanzee group develops its own culture through its own behavioural choices. (McGrew, 1991, 2004; 2007; McGrew and Tutin, 1978; Schoening et al., 2008; Whiten, 2011 Whiten et al., 1999). The documented patterns of variation across chimpanzee groups are unique in the nonhuman animal world. Decades of field work show that there are at least 40 unique chimpanzee cultures spread across Africa. These cultures are made up of combinations of over 65 different identifiable behaviors. In addition to those already mentioned, these also include the ingestion of various plant materials for their medicinal properties as anti-bacterial agents and dewormers (Huffman et al., 1997).

21. Many of the tools in chimpanzee tool kits are not preserved in the archaeological record because they are made of organic materials that decompose over time, such as leaves, stems, bark, etc.. However, such chimpanzee stone tools as hammer and anvils are preserved in the archaeological record in the same way as are human stone tools. Therefore, chimpanzee stone artefacts have been compared with early human stone artefacts in terms of what they reveal about their comparative mental abilities. The foraging tool kits of some chimpanzee populations, such as in western Tanzania, are indistinguishable in complexity from the tools kits of some of the simplest material cultures of humans, such as Tasmanian aborigines (McGrew, 1987), and of the oldest known human artefacts, such as those of the Oldowan Industry discovered in East Africa

(Wynn and McGrew, 1998; Wynn et al. 2011). Dated chimpanzee stone artefacts that have been excavated from sites in West Africa show that there was once a chimpanzee "Stone Age" (just as there was a Stone Age for humans) that dates to at least 4,300 years ago (Mercader et al., 2002, 2007). The ages of the tools suggest that, in at least one population chimpanzee tool-making culture has been passed down for 225 generations (Boesch, 2012). These findings demonstrate that chimpanzee culture has very deep roots that predate the onset of settled farming villages and the invention of Iron Age technology in that part of Africa.

22. With respect to social culture, there are many social displays and social customs that chimpanzees pass down from one generation to the next (McGrew et al. 2001; Whiten et al. 1999). Examples include the famous "waterfall display" originally reported by Jane Goodall (1986) At a waterfall in the Gombe National Park, Tanzania, she observed male chimpanzees approach the waterfall and display in slow, rhythmic motion along the riverbed. For ten minutes or more, they pick up and throw rocks and branches, leap to seize hanging vines, and swing over the stream in the wind. Goodall refers to these purposeful displays as likely expressions of feelings of awe in the chimpanzees towards the waterfall. Another example is the social "rain dance", which is a slow and deliberate pattern of rhythmic, bipedal locomotion at the start of rain performed mostly at the beginning of rainy season (Goodall,1967). Another well-documented social custom is the grooming hand-clasp in which two chimpanzees clasp each other's hands, raise those arms in the air, and groom each other with their free hand. This social custom was first observed in the Mahale Mountains of Tanzania (McGrew and Tutin, 1978) and occurs, with some variation, in certain locations and is completely absent in others (Nakamura and Uehara, 2004). This demonstrates the wide variability in social cultural expression across different chimpanzee groups.

23. The symbolic element that is key to human culture, is also found in wild chimpanzees. For instance, in one chimpanzee group arbitrary symbolic gestures are used to communicate desire to have sex whereas in another group an entirely different symbolic gesture is used to express the same sentiment (McGrew, 2011). The presence of symbolic culture in chimpanzees demonstrates that abstract concepts can be present without human language.

24. Comparisons between human and chimpanzee cultures demonstrate that the similarities are underwritten by a common set of mental abilities. The most important are imitation and emulation. Learning by observation is key to being able to imitate or emulate. Studies show that chimpanzees copy methods used by others to manipulate objects and use both direct imitation and emulation, depending on the circumstance (Horner and Whiten, 2005; Whiten et al., 2009). True imitation, which involves copying bodily actions, is an important hallmark of self-awareness because it suggests the individual has a sense of his own body and how it corresponds to someone else's body and that he can manipulate his body in accordance with the other's actions There is ample evidence that, under the right circumstances, chimpanzees mimic the actions of others precisely, even mimicking the correct sequence of actions to achieve a goal (Buttlemann et al., 2007; Whiten et al., 1996; Whiten et al., 2009). For instance, chimpanzees can imitate the actions of humans, or other chimpanzees, as well as the exact sequence of three actions in order to open up an "artificial fruit" to get a treat (Whiten et al., 1996). Chimpanzees may directly imitate someone else's way to achieve a goal when they have not yet figured out their own way to achieve the same goal. But, when chimpanzees already have the skills to complete a task they tend to emulate, not imitate (Horner and Whiten, 2005). These findings show that chimpanzees make choices about whether to directly copy someone else's actions based on whether they think they can figure out how to do the task themselves. Not only do chimpanzees imitate, but they know

when they are being imitated, and respond as young human toddlers do when they realize they are being imitated (Nielsen et al., 2005; Haun and Call, 2008). When imitated, both chimpanzees and young human children tend to "test out" the behavior of the imitator by making repetitive actions and looking to see if the imitator does the same. This behavior is similar to how chimpanzees and toddlers test whether an image in a mirror is herself. This action, called "contingency checking," is another hallmark of self-awareness. In addition to being aware of being imitated and being able to imitate others, chimpanzees are capable of "deferred imitation," that is, copying actions they've seen in the past (Bering et al., 2000; Bjorklund et al., 2000; Marshall-Pescini and Whiten, 2008). Deferred imitation relies upon even more sophisticated capacities than direct imitation because the chimpanzees must remember the past action of another while replicating those actions in real time.

25. Finally, all of these capacities for imitation and emulation are necessary for "cumulative cultural evolution." This specific kind of cultural capacity, which is found in humans and chimpanzees, involves the ability to build upon the customs that came before (Nagel et al., 1993; Hirata and Mirimara, 2000; Myowa-Yamakoshi and Matsuzawa, 2000; Yamamoto, Humle and Tanaka, 2013). Moreover, chimpanzees, like humans, have a tendency to be social conformists (Whiten, Horner and de Waal, 2005), which allows them to maintain customs within groups. All of the evidence so far suggests a striking similarity between the mental capacities of humans and chimpanzees in the areas of observational learning, imitation (and thus self-awareness), decision-making, memory and innovation.

26. Chimpanzees appear to have moral inclinations and some level of moral agency, that is, they behave in ways that, if we saw the same thing in humans, we would interpret as a reflection of moral imperatives and self-consciousness. They ostracise individuals who violate social norms (Goodall, 1986). They respond negatively to inequitable situations, e.g. when offered

lower rewards than companions receiving higher ones, for the same task (Brosnan et al., 2005). When given a chance to play economic games (e.g. Ultimatum Game), they spontaneously make fair offers, even when not obliged to do so (Brosnan, 2013; Horner et al., 2011; Proctor et al., 2013; von Rohr, 2012).

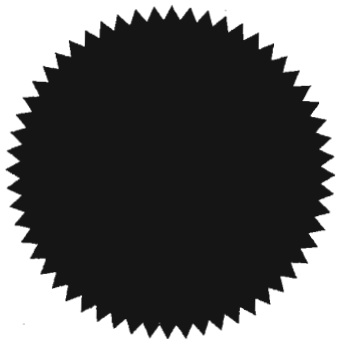
27. Chimpanzee social life in nature is cooperative. They engage in collaborative social hunting, in which different individual hunters adopt different roles that increase the chances of success of the hunt. After the hunt, they share the meat from the prey gained (Boesch, 2012). Males cooperate in territorial defense, when they engage in risky boundary patrolling. Encounters with neighbouring males may be fatal, so that such cooperation may have life-or-death consequences (Mitani et al., 2010). These types of behaviors represent a purposeful and well-coordinated social system.

William C. McGrew

Sworn to before me
this 21st day of November, 2013

Notary Public

PETER C. FLETCHER
Notary Public
27 Pretoria Road
Cambridge CB4 1HD
My commission is for life



This is "Exhibit A" referred to in the Affidavit of William C McGrew Sworn before me Notary Public 21/11/13

Curriculum vitae: **WILLIAM CLEMENT McGREW** (March 2012)

Work Addresses: Department of Archaeology and Anthropology
University of Cambridge
Fitzwilliam St
Cambridge CB2 1QH, U.K.
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Corpus Christi College
Trumpington St
Cambridge CB2 1RH

Education

2009	Ph.D. in Biological Anthropology, University of Cambridge, England
1990	Ph.D. in Social Anthropology, University of Stirling, Stirling, Scotland Thesis: *Chimpanzee Material Culture: Implications for Human Evolution*
1970	D.Phil. in Psychology, University of Oxford, Oxford, England Thesis: *An Ethological Study of Social Behaviour in Preschool Children*
1965	B.S. (with Special Distinction) in Zoology, University of Oklahoma, Norman, USA

Awards and Honours

2012	Senior Fellow, McDonald Institute for Archaeological Research, Cambridge
2010	Distinguished Alumni Award, College of Arts and Sciences, University of Oklahoma
2008	Osman Hill Medal, Primate Society of Great Britain
2005	Fellow, American Association for the Advancement of Science
2003	Corresponding Fellow, Royal Society of Edinburgh, Scotland
1998	Prix Delwart, for Human Ethology and Cultural Anthropology, Fondation Jean-Marie Delwart and Royal Academy of Sciences of Belgium ($10,000)
1996	W.W. Howells Book Prize in Biological Anthropology, American Anthropological Association
1995	Outstanding Research Award, Center for Research into the Anthropological Foundations of Technology, and Leighton A. Wilkie Memorial Lecture, Indiana University

Professional Training and Employment

2010 (Jul)	Visiting Fellow, Hanse-Wissanschafts Kollegg, Delmenhurst, Germany
2009-	Professor of Evolutionary Primatology, University of Cambridge
2005-09	Lecturer in Biological Anthropology, University of Cambridge
2008	Fellow, Corpus Christi College, Cambridge
2003 (Oct-Dec)	Fellow, Collegium Budapest, Hungary
2003 (Jan-Jun)	Visiting Bye Fellow, Selwyn College, and Visiting Research Fellow, Leverhulme Centre for Human Evolutionary Studies, University of Cambridge
2001 (Jul-Aug)	Russell Trust Senior Research Fellow, School of Psychology, University of St. Andrews, Scotland
2001 (Jun)	Visiting Professor, Ecole des Hautes Etudes en Sciences Sociales, College de France, Paris
1994-2005	Professor, Depts. of Anthropology and Zoology Miami University
1994 (autumn)	Visiting Professor, Dept. of Anthropology University of California, Berkeley
1993-94	Wiepking Distinguished Professor, Depts. of Sociology & Anthropology, Psychology, and Zoology, Miami University, Oxford, Ohio
1993 (spring)	Visiting Faculty Member, Dept. of Biology Earlham College, Richmond, Indiana
1989-92	Reader in Psychology, University of Stirling
1986 (autumn)	Visiting Faculty Member, Depts. of Anthropology and Biology University of New Mexico, Albuquerque
1982	Nuffield Foundation Social Science Research Fellow
1981-89	Senior Lecturer in Psychology, University of Stirling
1980 (autumn)	Visiting Faculty Member, Dept. of Psychology University of North Carolina at Charlotte
1974-81	Lecturer in Psychology, University of Stirling, Scotland
1972-73	Research Associate, Dept. of Psychiatry and Behavioral Sciences Stanford University, and Gombe Stream Research Centre, Kigoma, Tanzania
1972	Visiting Investigator, Delta Regional Primate Research Center Tulane University, Louisiana

1971 (summer)	Participant in Wenner-Gren Foundation Field School in Primatology Caribbean Primate Research Center, Cayo Santiago, Puerto Rico
1970-71	SSRC Postdoctoral Research Associate, Dept. of Psychology University of Edinburgh, Scotland
1969-70	National Institutes of Mental Health Postdoctoral Fellow Dept. of Psychology, University of Edinburgh
1968-69	Population Council Fellow, Dept. of Psychology, University of Edinburgh
1965-68	Rhodes Scholar, University of Oxford, Inst. of Experimental Psychology (66-68); Dept. of Zoology (65-66)

Research Grants

2011	Emeritus Fellowship, "Chimpanzee Behaviour and Modeling Human Evolutionary Origins" Leverhulme Trust, £22,000
2005	"Sex Differences in Faunivory of Wild Bonobos at Salonga," Leakey Foundation, $14,500 (with L.F. Marchant)
2003-08	Revealing Hominid Origins Initiative," National Science Foundation, HOMINID program, $48,000 (sub-contract, PI: F. Clark Howell & T.D. White, Univ. California-Berkeley)
2000	"Savanna Chimpanzee Behavior and Ecology at Mont Assirik, Senegal," National Geographic Society, $7000 (with J.D. Pruetz)
2000	"Savanna Chimpanzee Density and Distribution at Mont Assirik, Senegal," Primate Conservation, Inc., $2500 (with J.D. Pruetz)
1999	"Sex Differences in Faunivory in Wild Chimpanzees at Mont Assirik, Senegal," L.S.B. Leakey Foundation, $13,000 (with L.F. Marchant)
1999	"Behavioral Ecology of Wild Chimpanzees at Mont Assirik, Senegal", Philip and Elaina Hampton Fund, Miami University, $6000 (with L.F. Marchant)
1996	"Behavior of Wild Chimpanzees in Tanzania: Handedness, Prehension and Object Manipulation", Philip & Elaina Hampton Fund, Miami University, $5961 (with L.F. Marchant)
1995	"Comparative Research on Chimpanzees and Bonobos", Max-Planck-Gesellschaft, D.M. 5000 (with L.F. Marchant)
1995	"Great Ape Societies", Publication grant, Wenner-Gren Foundation for Anthropological Research, $10,000 (with L.F. Marchant, T. Nishida).
1994	"Laterality of Function in Human and Nonhuman Primates", Max-Planck-Gesellschaft, D.M. 7000 (with L.F. Marchant)
1993	"Laterality of Function in Traditional Human Societies", Max-Planck-Gesellschaft, D.M. 12,000 (with L.F. Marchant)

1992	"Laterality of Limb Function in Wild Chimpanzees, Gombe, Tanzania", L.S.B. Leakey Foundation, $7500 (with L.F. Marchant)
1981	"Cross-Cultural Study of Tool-use by Wild Chimpanzees", Science and Engineering Research Council, £11,859.
1979	"Ecology and Ethology of Four Sympatric Primate Species in Senegal, West African (Final Stage)", Science Research Council, £13,462.
	"Chimpanzees in Senegal Using Tools to Obtain Termites", Leakey Foundation, $1462.
1978	"Ecology and Ethology of Four Sympatric Primate Species in Senegal, West Africa (Supplement)", Science Research Council, £13,650.
1977	"Ecology and Ethology of Four Sympatric Primate Species in Senegal, West Africa", Science Research Council, £15,644.
1976	"Ecology and Behavior of Chimpanzees, West Africa", Wenner-Gren Foundation for Anthropological Research, $1000.
	"Ecology and Behavior of Wild Chimpanzees in Senegal, West Africa", Science Research Council, £4164.
1975	"Field Study of Wild Chimpanzees in Senegal", Carnegie Trust for the Universities of Scotland, £2000.
	"Behavior and Ecology of Wild Chimpanzees in Senegal", Leakey Foundation, $2000.

Plus 23 smaller grants totaling ca. $16,000 awarded from 1974-2011 by American Philosophical Society, Boise Trust, British Council, Carnegie Trust for the Universities of Scotland, L.S.B. Leakey Trust, Royal Anthropological Institute, Royal Society, Royal Zoological Society of Scotland, University of Stirling, University of Cambridge.

Teaching

Semester courses taught (all or in part) at Earlham College (E) or at Universities of California (C), Cambridge (Cb), Stirling (S), New Mexico (NM), North Carolina at Charlotte (NC), or Miami University (M):

Apes & Human Evolution		Cb
Animal Behaviour		S
Avian & Mammalian Social Systems	(Graduate)	NM
Behavioral Ecology & Conservation Biology	(Graduate)	M
Behavioral Primatology		C, S
Cultural Primatology		Cb
Developmental Psychology		NC, S
Evolution of Human Behaviour	(Capstone)	M, S, NC
Evolutionary Medicine	(Graduate)	M
Heredity, Environment, & Human Society		M
The Human Animal	(Capstone, Honors Seminar)	M

Human Evolutionary Ecology	(Graduate)	M
Introductory Psychology		S
Foundations of Biological Anthropology		M
Mammalogy		M
Origins of Human Material Culture	(Graduate)	C, NM
Primate Behavior & Human Evolution	(Honors Seminar)	S, Cb
Socio-Ecology of Primates		M, E, Cb
Senior Seminar in Anthropology	(Capstone)	M

External examination of Ph.D.'s at the Universities of Birmingham, Reading, St. Andrews, Sheffield, Stirling, London (Birkbeck, UCL, Goldsmiths); M.Phil. (CNAA) Birmingham Polytechnic; and M.Sc. at St. Andrews.

1992 Award from University of Stirling Teaching Fund: £1072 to develop new program of teaching practicals in Animal Behaviour.

Graduate Student Primary Supervision

Baldwin, P.J. Ph.D. 1979	The natural history of the chimpanzee *(Pan troglodytes verus)* at Mt. Assirik, Senegal.
Niemeyer, C.L. M.Sc. 1980	Interference in mating in the stumptailed macaque *(Macaca arctoides)*.
Harrison, M.J.S. Ph.D. 1982	The behavioural ecology of green monkeys, *Cercopithecus sabaeus*, at Mt. Assirik, Senegal.
Chamove, A.S. Ph.D. 1982	Development of aggressiveness in macaques.
Feistner, A.T.C. M.Sc. 1985	Food sharing in the cotton-top tamarin, *Saguinus oedipus oedipus*.
Williamson, E.A. Ph.D. 1988	Behavioural ecology of the lowland gorilla *(Gorilla g. gorilla)* in Gabon.
Brereton, A.R. Ph.D. 1988	Sexual interference in stumptail macaques *(Macaca arctoides)*: Is it return-benefit spite?
Hannah, A.C. Ph.D. 1989	Behavioural rehabilitation of laboratory chimpanzees in Liberia.
Price, E.C. Ph.D. 1990	Cooperative breeding in captive families of the cotton-top tamarin.
Moore, K. M.Sc. 1993	Dispersal and philopatry in captive cotton-top tamarins.

Oberski, I. Ph.D. 1993	Grooming relations in captive chimpanzees, Edinburgh Zoo.
Newing, H. Ph.D. 1994	Behavioural ecology of duikers *(Cephalophus* spp.) in forest and farmbush, Tai, Cote d'Ivoire.
Ham, R. Ph.D. 1994	Behaviour and ecology of grey-cheeked mangabeys (*Cercocebus albigena)* in the Lope Reserve, Gabon.
Hardie, S.M. Ph.D. 1995	Polyspecific associations of tamarins (Callitrichidae).
Henry, M. M.Sc. 1998	Competition for resources between *Homo sapiens* and *Pan paniscus* in the Lomako Forest of Zaire.
Videan, E.N. M.Sc. 2000	Bipedality in bonobo (*Pan paniscus*) and chimpanzee (*Pan troglodytes*): Implications for the origins of bipedalism in hominids.
Videan, E.N. Ph.D. 2005	Chimpanzee nest-building and sleep: A model for the evolutionary origins of shelter.
Persad-Clem, R. Ph.D. 2009	Adaptation of captive chimpanzees to free-ranging in a natural temperate environment.
Smaers, J. M. Phil. 2006	Comparative socioecology of primate brain component evolution.
Koops, K. Ph.D. 2011	Elementary technology of foraging and shelter in the chimpanzees of the Nimba mountains, Guinea.
Phillips, C. Ph.D. 2012	Chimpanzee diet: Analyses at macroscopic, microscopic and molecular level.
Stewart, F. Ph.D. 2011	The evolution of shelter: Ecology and ethology of chimpanzee nest-building.
Carvalho, S. Ph.D. student	Evolutionary origins of technological behaviour: A primate archaeology approach to chimpanzees
Bertolani, P. Ph.D. student	GIS-based study of chimpanzee ranging

Professional Societies (Offices Held)

American Association for the Advancement of Science	
Electorate Nominating Committee, Anthropology	2001-2004
Chimp Haven, Board of Directors	1999-2005
International Primate Protection League, Scientific Advisory Board	1977-

International Society for Human Ethology, Board of Trustees	1978-1982, 2005-
Primate Specialist Group-Africa	1985-
IUCN-SSC Primate Special Group, Sub. Comm. on Great Apes	2004-
Primate Society of Great Britain, Council	1985-1988
Working Party on Conservation	1979-1983
Royal Anthropological Institute, Council	1990-1992
Committee on Biological & Social Anthropology	1988-1991
Royal Zoological Society of Scotland, Council	1974-1978; 1990-1992
Executive Committee	1975
Animal Health and Management Committee	1974-1981

Editorial Boards

American Journal of Primatology, Consulting Editor	1991-1999
Carnivore	1978-1983
Ethology and Sociobiology, European Editor	1984-1992
Editorial Board	1994-1996
Folia Primatologica	1989-2009
Human Ethology Newsletter, Reviews Co-Editor	1982-1986
Human Evolution	1994-
Human Nature	1990-1996
International Journal of Primatology	1995-2000
Journal of Human Evolution, Assoc. Editor	1983, 1992-1995
Man	1987-1992
Pan Africa News	1997-
Primates	1985-

Reviewing of Grant Applications/Book Proposals/Manuscripts (cumulative)

Review Panel, Individual Research Grants, Wenner-Gren Foundation for Anthropological Research, 2004-2005

Alexander von Humboldt Foundation, Association for the Study of Animal Behaviour, Bonobo Protection Fund, Cambridge University Press, Canada Council, H.F. Guggenheim Foundation, Harvard University Press, Japan Society for the Promotion of Science, L.S.B. Leakey Foundation, Leverhulme Trust, Charles & Anna Morrow Lindbergh Foundation, National Geographic Society, National Science Foundation (Anth., Psychobiol.), Primate Conservation Inc., Princeton University Press, Royal Anthropological Institute, School of American Research Press, Science & Engineering Research Council, W.H. Freeman, Wenner-Gren Foundation for Anthropological Research

Reviewing of Journal Manuscripts (cumulative)

African Journal of Ecology, American Journal of Primatology, American Journal of Physical Anthropology, American Naturalist, Animal Behaviour, Animal Welfare, Annals of Tropical Medicine & Hygiene, Behavioral and Brain Sciences, Behaviour, Biology Letters, Cambridge Archaeological Journal, Carnivore, Current Anthropology, Developmental Psychobiology, Ecology

and Evolution, Ecotvopica, Ethology and Sociobiology, Ethology, Evolutionary Anthropology, Folia Primatologica, Geographica, Human Evolution, Human Nature, Intnl Journal of Behavioral Development, Intnl Journal of Primatology, Journal of Archaeological Science, Journal of Comparative Psychology, Journal of Human Evolution, Journal of Linnean Society of London, Journal of Royal Anthropological Institute, Laterality, Man, Nature, Oryx, Pan Africa News, Primates, Proceedings of the National Academy of Sciences USA, Proceedings of the Royal Society of London B, Quarterly Journal of Experimental Psychology, Science, Yearbook of Physical Anthropology, Zoo Biology.

Invited Lectures to National or International Meetings

2011 "Triangulating on Technology: Three Routes to Percussive Lithics in Primates", podium presentation, Fourth Congress of European Federation for Primatology, Lisbon, PORTUGAL.
2011 "Unnatural Behaviour: Obstacle or Insight at the Species Interface?", roundtable, 'Humans and Other Apes: Rethinking the Species Interface', New York, NY.
2011 Memories of Gombe over Three Decades", symposium, 'An Oral History of Primatology at Cambridge', Personal Histories Project, Cambridge.
2011 "Chimpanzees and the Last Common Ancestor", Invited public lecture, Institute of Human Origins, Arizona State Univ., Tempe, AZ.
2010 "Fifty Years of Chimpanzee Tool Use: What's Left to Know?", lect., University of Oklahoma, USA
2009 "The First 4 Million Years of Human Evolution", Royal Society, discussion meeting, London
2009 "150 Anos derpres de Darwin: Evolution futuro o crisis?", CENIEH, Symp, Burgos, Spain
2009 "The Dawn of Language, Imagination, and Spirituality", Templeton Foundation, symp., Cape Town, South Africa
2008 W.C. Osman Hill Lecture, Primate Society of Great Britain, London, U.K.
2008 "Origins of Percussive Technology", Leverhulme Centre for Human Evolutionary Studies, symp., Cambridge, U.K.
2008 "Fest Conference for W. Schiefenhoevel', Max-Planck-Gesellschaft, symp., Andechs, Germany
2008 "Human and Non-Human Ethology", symp., Russian Academy of Sciences, Novosibirsk, Russia
2007 Belgian Group for Primatology, keynote lecture, Antwerp, Belgium
2007 7th Kongress der Gesellschaft fur Anthropologie, plenary lecture, Freiburg, Germany
2007 "The Mind of the Chimpanzee," Understanding Chimpanzees IV, symp., Chicago, USA
2007 James Drever Lecture, School of Psychology, University of Edinburgh, Scotland
2006 "Anthropology at UCL," symp., University College London
2006 "Transcultural Universals," symp.,Wissenschaftskolleg, Delmenhorst, Germany
2006 "Bossou 30 Ans," symp. Conakry, Republic of Guinea
2006 Journal of Anthropological Research Annual Lecture, Albuquerque, USA
2005 "Nature, Language, Culture: Learning from Animals?" symp., Essen, Germany
2005 "Chimpanzee Cultures," Origins of Humans, San Diego, USA
2005 "Chimpanzee Material Culture," Chacmool Conf., symp. Calgary, Canada
2004 "African Great Apes: Evolution, Diversity & Conservation", symp., Kyoto University, Japan
2003 "Konrad Lorenz Symposium," Ludwig-Maxmillians-Universität, Munich, Germany
2003 "Konrad Lorenz Symposium 2," Bucharest, Romania
2003 "International Primatological Conference," Lisbon, Portugal
2002 "Evolution, Behaviour, Society," Human Ethology Summer School, Pushchino, Russia
2002 "Production and Reproduction," Southern California Primate Research Forum, Los Angeles, USA
2001 "Culture in Marine Mammals," Biennial Marine Mammals Conference, Vancouver, Canada
2001 "Fluid Bread: Images and Usages of Beer in Crosscultural Perspective," symp., International Commission for the Anthropology of Food, Seewiesen, Germany

2001 "Evolutionary Neighbors," symp., 4th International SAGA Forum, Okayama, Japan
2000 "The Social Brain: Evolution and Pathology", symp., Max-Planck Inst. Beh. Physiol., Bochum, Germany
2000 "Animal Social Complexity and Intelligence", symp., Chicago Acad. of Sci, Chicago, USA
2000 "Human Universals", symp., Hanse Wissenschaftskolleg, Andechs, Germany
2000 "Chimpanzee Cultures", exhibition, New Frontiers in Science 2000, Royal Society and Royal Society of Edinburgh, London and Edinburgh, UK
2000 "Behavioral Diversity in Chimpanzees and Bonobos", symp., Max-Planck Inst. Evolutionary Anthropol., Seeon, Germany
1999 "Evolution and Culture", symp., Fondation Fyssen, St. Germaine, France
1999 "Anthropology at the End of the Century", symp., Wenner-Gren Foundation, Cabo San Lucas, Mexico
1999 "Origins", symp., Living Links Center for Advanced Study of Human and Ape Evolution, Atlanta, USA
1999 "Primate Cultures", symp., Southern California Primate Research Forum, Los Angeles, USA
1998 "The Early Human Diet: The Role of Meat", symp., Wenner-Gren Foundation, Madison, USA
1998 "Hominid and Non-Hominid Primate Behaviour and Lifestyles", symp., Dual Congress of Int. Assn. Study of Human Palaeontology and Int. Assn. of Human Biologists, Sun City, South Africa
1998 "Evolving the Human Mind", symp., Hang Seng Centre for Cognitive Studies, Sheffield, UK
1998 "Primatology and Human Nature", roundtable, Dialogue between Science and Religion, Amer. Assn. Advancement Sci., Washington, USA
1997 "Human Evolution", symp., Cold Spring Harbor Laboratory, New York, USA
1997 "Exploring the Primate Mind", symp., National Zoological Park, Smithsonian Institution, Washington USA
1995 "Chimpanzee Behavioral Diversity", plenary lecture, Midwest Animal Behavior Conference, Oxford, USA
1994 "The Great Apes Revisited", symp., Wenner-Gren Foundation, Cabo San Lucas, Mexico
1994 "Anthropologie Heute", symp., Gesellschaft für Anthropologie, Potsdam, Germany
1992 "Ethological Roots of Culture", NATO Advanced Study Inst., Cortona, Italy
1991 "Great Apes of the World", symp., Orangutan Foundation International, Jakarta, Indonesia
1991 "Food and the Status Quest", symp., European Commission on the Anthropology of Food, Ringberg, Germany
1991 "Foraging Strategies and Natural Diet of Monkeys, Apes, and Humans", symp., Royal Society Discussion Meeting, London, UK
1991 "Understanding Chimpanzees II", symp., Chicago Acad. of Sci., symp., Chicago, USA
1990 "Tools, Language, and Intelligence: Evolutionary Implications", symp., Wenner-Gren Foundation, Cascais, Portugal
1988 "Tool-Use by Primates", symp., Fondation Fyssen, Versailles, France
1987 "Comparative Socioecology of Mammals and Man", symp., Brit. Ecological Society and Royal Anthropol. Inst., Durham, UK
1986 "The Pleistocene Perspective", symp., World Archaeology Congress, Southampton, UK
1986 "Understanding Chimpanzees", symp., Chicago Acad. of Sci., Chicago, USA
1986 "Fourth International Conference on Hunting and Gathering Societies", symp., London, UK
1985 "Primates", symp., British Social Biology Council, London, UK
1984 "The Sharing of Food", symp., Werner Reimers Stiftung, Bad Homberg, Germany
1980 "Nonhuman Primates in Biomedical Programs", symp., Humane Society of U.S.A., San Francisco, USA
1974 "The Great Apes", symp., Wenner-Gren Foundation, Burg Wartenstein, Austria
1972 "The Growth of Competence", Ciba Foundation, London, UK

Colloquia Given at Universities and Other Places (* = Multiple)

* Aberdeen, Alberta, * Andechs (Max-Planck), *Arizona State, Armstrong Atlantic, Basel, Bristol, Bucknell, Budapest, Buffalo, * California-Berkeley, California-Davis, California-Los Angeles, *California-San Diego, * Cal State-Fullerton, * Cambridge, Case-Western, Centenary, * Centre College, Charleston, Chester, Chicago Zool. Soc., Cincinnati, Colorado-Boulder, Colorado-Colorado Springs, Colorado-Denver, * Duke, Dundee, * Durham, *Earlham, * Edinburgh, Emory, Georgia, George Washington University, Glasgow, * Göttingen, Illinois, * Indiana, * Jersey Zoo, *John Carroll University, Kent, Kent State, Leipzig, *Liverpool, Manchester , * Miami (Ohio), Michigan, * Milano, Minnesota, Munich, * New Mexico, New York University, North Carolina-Charlotte, Ohio State University, * Oklahoma, * Oxford, Oxford Brookes, Pisa, Potsdam, Roma, * St. Andrews, South Carolina-Beaufort, Stanford, Southern California, * Stirling, Tennessee, * University College London, Utica, * Wisconsin, Wright State, * Zürich

Conference Organization

2012 "Insectivory", symposium, American Association of Physical Anthropologists, Portland, Oregon
2011 "Lateral Thinking: The Evolution of Human Handedness", workshop, HWK, Delmenhorst, Germany
2007 "Palaeoanthropology Meets Primatology," symposium, LCHES, University of Cambridge
2005 "Primatology Meets Palaeoanthropology," workshop, Miami University, Oxford, Ohio
1996 "*Cebus* Meets *Pan*," Symposium of International Primatological Society, Madison (with E. Visalberghi)
1996 "Nesting and Resting in Primates", Symposium of International Primatological Society, Madison (with B. Fruth)
1994 "The Great Apes Revisited", Wenner-Gren Foundation for Anthropological Research, Cabo San Lucas, Mexico (with T. Nishida)
1992 "Scottish Conference on Animal Behaviour", Stirling
1990 "Origins of Monogamy", Symposium of International Primatological Society, Kyoto
1989 "Behavioural Ecology of Neotropical Primates", Meeting of Tropical Ecology Group, British Ecological Society, London
"Weekend Workshop on Callitrichid Behavior", Scottish Primate Research Group, Stirling
1988 "Tools Compared: The Material of Culture", Conference of Royal Anthropological Institute, London
1985 "Scottish Conference on Animal Behaviour", Stirling
1982 "Gorilla Ecology", Workshop of International Primatological Society, Atlanta
1981 "Scottish Conference on Animal Behaviour", Stirling
1980 "Primate Tool-Use", Satellite Symposium of International Primatological Society, Florence

Books

1972 McGrew, W.C. ***An Ethological Study of Children's Behavior***. New York: Academic Press, 268 pp.

Published in The Child Psychology Series. Had positive reviews in *Nature, Science, Contemporary Psychology*, etc. Translated into Italian and Japanese.

1992 Nishida, T., McGrew, W.C., Marker, P., Pickford, M. & de Waal, F.B.M. (eds.) ***Topics in***

Primatology, Volume 1. Human Origins. Tokyo: University of Tokyo Press, 475 pp.

1992 McGrew, W.C. ***Chimpanzee Material Culture: Implications for Human Evolution.*** Cambridge University Press, 277 pp.

Won the 1996 W.W. Howells Prize of the American Anthropological Association, for the best book of the year in biological anthropology. Had positive reviews in *Nature, Science, Scientific American, New Scientist, American Scientist,* as well as in popular press, e.g. *Economist, Times Higher*, and disciplinal journals, e.g. *Contemporary Psychology, Cambridge Archaeological Journal.* In its fourth printing, and translated into Japanese.

1994 Wrangham, R.W., McGrew, W.C., de Waal, F.B.M. & Heltne, P.G. (eds.) ***Chimpanzee Cultures.*** Cambridge, MA: Harvard University Press, 424 pp.

This edited volume received positive reviews in *Science, New Scientist, Science News, Ethology, Times Higher, Los Angeles Times,* etc. Went into paperback a year after publication.

1996 McGrew, W.C., Marchant, L.F. & Nishida, T. (eds.) ***Great Ape Societies***, Cambridge: Cambridge University Press, 328 pp.

This edited volume received positive reviews in both general (*Nature, American Scientist* and specialist (*American Zoologist, Evolutionary Anthropology, Man*) scientific journals, as well as the popular press (*BBC Wildlife, Times Higher*). In its third printing.

2004 McGrew, W.C. ***The Cultured Chimpanzee: Reflections on Cultural Primatology***, Cambridge University Press, 248 pp.

Positive reviews in *Nature, American Scientist, Primates, American Anthropologist,* etc.

2010 Nishida, T., Zamma, K., Matsusaka, T., Inaba, A. & McGrew, W.C. ***Chimpanzee Behavior in the Wild: A Visual Encyclopedia.*** Springer Verlag, 255 pp.

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2. 1970 McGrew, W.C. Glossary of motor patterns of four-year-old children. In: *Direct Observation and Measurement of Behavior*, Hutt, S.J. & C., Springfield, IL: Charles C. Thomas, pp. 210-218.
3. 1971 McGrew, W.C. & McGrew, P.L. Group formation in preschool children. In: *Proceedings of the Third International Congress of Primatology, Volume 3, Behavior*, Kummer, H. (ed), Basel: Karger, pp. 71-78.
4. Hudson, P.T., McGrew, W.C. & McGrew, P.L. Attention structure in a group of preschool infants. In: *Proceedings of the CIE Architectural Psychology Conference*, Kingston-on-Thames: RIBA & Kingston Polytechnic, pp. 12-16.
5. 1972 McGrew, W.C. Aspects of social development in nursery school children, with emphasis on

introduction to the group.
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7. McGrew, W.C. & Tutin, C.E.G. Chimpanzee dentistry. ***Journal of the American Dental Association***, 85: 1198-1204.

8. 1973 McGrew, W.C. & Tutin, C.E.G. Chimpanzee tool use in dental grooming. ***Nature***, 241: 477-478.

9. Tutin, C.E.G. & McGrew, W.C. Chimpanzee copulatory behaviour. ***Folia Primatologica***, 19: 237-256.

10. Tutin, C.E.G. & McGrew, W.C. Sexual behavior of group-living adolescent chimpanzees. ***American Journal of Physical Anthropology***, 38: 195-200.

11. McGrew, W.C. & McGrew, P.L. McGrew-McGrew system.
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Exhibit: B. to Affidavit of William C. McGrew sworn to November 21, 2013
Reference List of Peer-Reviewed Literature (372-375)

This is "Exhibit B" referred to in the Affidavit of William C. McGrew Sworn before me this 21/11/13

EXHIBIT B

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Exhibit: K. to Verified Petition dated December 2, 2013
Affidavit of Mathias Osvath declared on November 19, 2013 (376-384)

STATE OF NEW YORK
SUPREME COURT COUNTY OF NIAGARA

In the Matter of a Proceeding under Article 70 of the CPLR for a Writ of Habeas Corpus,

THE NONHUMAN RIGHTS PROJECT, INC., on behalf of KIKO,

Petitioners,

v.

CARMEN PRESTI, individually and as an officer and director of The Primate Sanctuary, Inc., CHRISTIE E. PRESTI, individually and as an officer and director of The Primate Sanctuary, Inc., and THE PRIMATE SANCTUARY, INC.,

Respondents.

AFFIDAVIT OF MATHIAS OSVATH

Index No.:

COUNTRY OF SWEDEN)
)
PROVINCE OF Skåne) ss:
)
MUNICIPALITY OF Lund)

Mathias Osvath being duly sworn, deposes and says:

Introduction and Qualifications

1. My name is Mathias Osvath. I received a PhD in Cognitive Science, with specialization in Cognitive Zoology from Lund University in 2010.

2. I submit this affidavit in support of Petitioners The Nonhuman Rights Project, Inc. ("NhRP"), on behalf of Kiko, for a writ of habeas corpus. I am a non-party to this proceeding.

3. I am a Cognitive Zoologist at Lund University in Sweden, a research fellow in the Department of Cognitive Science at Lund, and leader of the Cognitive Zoology Group at Lund. I am the scientific director of two research facilities for the study of animal cognition: Lund University Primate Research Station, and Lund University Corvid Cognition Station. I

am currently the main supervisor of two PhD-students in Cognitive Zoology. I am, and have been, teaching courses on graduate and post-graduate levels in Comparative Cognition, Animal Behaviour, Ethology, Methods in Cognitive Science, Neurocognition (mainly in different departments at Lund University, and at the Swedish University of Agricultural Sciences).

4. Apart from my work at Lund University I collaborate on different projects on animal cognition with colleagues at Oxford University, the Max Planck Institute and the University of Vienna.

5. I have been selected as one of 10 excellent young researchers of Lund University (the largest university in Northern Europe). The Swedish head of State, King Carl Gustav XVI, made an official visit to the primate research station I founded (and direct) to highlight its importance in Swedish cognitive research. I have received funding from several prestigious foundations including The Swedish Research Council, the Crafoord Foundation, in which I received the largest grant award in the Foundation's history for a regular science project, and The Royal Swedish Academy of Sciences.

6. I serve on various boards and groups at Lund concerned with the ethical treatment of animals in research. I have been on the faculty steering committee for the animal research facilities since 2007. I am often asked for advice and opinions by the Swedish Agricultural Board (which implements legislation on animal research). I have been a member of the research committee for the Swedish Zoo Association since 2009. I have sat on the board of the Jane Goodall Institute in Sweden since 2009. I am on the advisory board of Lund University's Institute for Advanced Studies. I sit on the editorial board of three international scientific journals: *Frontiers in Comparative Psychology, International Journal of Comparative Psychology* and *Animal Behavior and Cognition*.

7. I specialize in complex cognition, specifically mental representation and planning abilities, of great apes and corvids (crows). I have studied great apes in captivity with

controlled experiments and observations since 2004. I have worked with corvids both in captivity and in the wild since 2007. To my knowledge I am the only scientist who has created a research method for comparing distantly related, but cognitively similar, species (apes and corvids) in order to understand the principles of complex cognition.

8. I have written 16 peer-reviewed scientific papers and book chapters (and 17 conference abstracts). I am the sole or the first author for a majority of these. Two of my papers (published in *Current Biology* and *Animal Cognition*) are among the most highly cited papers in the animal behavior field (in the 98th and 99th percentile of citations since published). One of my findings on chimpanzee planning abilities was selected by *Discover Magazine* as one of the scientific breakthroughs of the year 2009 (and appeared at a similar list in *New Scientist*). I am routinely invited to contribute to special issues in various journals including *Philosophical Transactions of the Royal Society B*.

9. I regularly give talks in scientific contexts and for the public. I am often an invited speaker to national and international academic departments and conferences. Apart from Sweden, I have given talks (often several times in each country) in Denmark, Germany, Austria, Czech Republic, France, UK, USA and Japan. My research has made international headlines on the front pages of newspapers like The Guardian and Le Figaro. The news section of *Science* has twice reported on my findings. I have twice given interviews to North America's largest radio show on science, "Quarks and Quirks." In Sweden, my research has been the focus of several prime-time radio and TV documentaries. My scientific discoveries on great ape planning were the most covered (widely written about) news to come out of Sweden in 2009 and my findings became the largest international news from Sweden that year. I have also collaborated with Animal Planet and the BBC on documentaries on animal cognition and behavior.

Basis for Opinions

10. The opinions I state in this Affidavit are based on my scientific knowledge about chimpanzee cognition. In particular it is based on my expertise in great ape abilities to foresee potential future states, which is an area where I am regarded as among those with the foremost knowledge. A full reference list of peer-reviewed literature cited herein is annexed hereto as **"Exhibit A"**.

Opinions

11. Chimpanzees are, together with bonobos, our closest living relatives (Goodman, 1999) and, as such, we share an abundance of characteristics. We are not only similar in appearance and physiology but also in our emotions and our cognition. Each year the list of uniquely human cognitive abilities dwindles as we learn more about chimpanzees and other great apes. Many of the traits we consider to be characteristic of humans are those which define someone as an autonomous being or person. Likewise, chimpanzees and other great apes, share these capacities associated with autonomy. I will here focus on one major class of those key characteristics of autonomy which my colleagues and I have been studying in great apes for the last seven years: the ability to plan and remember from a first person perspective.

12. When we humans recollect a specific event or plan for a new situation, we use perceptual simulations, which enables us to experience these events mentally, i.e., with our "inner eyes and ears". One can think of this ability as mental time travel. This skill is enabled through the episodic system, that is, memories for autobiographical events and foresights for personal situations, (Tulving, 1985). Tulving identified what he called *autonoetic consciousness* (which roughly means self-knowing consciousness) as a necessary correlate of the episodic system (Tulving, 1985). Put simply, without the understanding that you are an individual who exists through time you would not be able to recollect past events in your life and plan future events. Autonoetic consciousness gives an individual of any species an

autobiographical sense of a self with a future and a past. Chimpanzees and other great apes clearly possess an autobiographical self, as they are able to prepare themselves for future actions (e.g., tool use), even as much as a day in advance (Beran et al., 1999, 2004, 2012; Beran and Evans, 2009, 2012; Mulcahy and Call, 2006; Osvath and Osvath, 2008) and demonstrate a capacity for episodic memory. They can remember highly specific contextual elements, that is, the "what, where and when" of events when hours, weeks and even years have passed (Martin-Ordas et al., 2010; 2013).

13. In 2009, I published an observational study of one male chimpanzee in a zoo who prepared for future stone throwing at visitors (Osvath, 2009). The key findings in this study were that the chimpanzee collected and stockpiled stones at strategic places in his compound when he appeared completely calm, but when he used them later he was in an agitated state. The ability to plan for events where you are in a different psychological state from the current situation is regarded as a strong sign of an episodic system (e.g. Suddendorf and Corballis, 2007). In 2012 we conducted a follow-up study in order to get a more detailed understanding of the planning behaviour of this chimpanzee (Osvath and Karvonen, 2012). We found very complex behaviours not documented before. The chimpanzee engaged in deception for the future by constructing hides for his stone caches and by inhibiting his aggressive displays (which are tell-tale signs of upcoming throws). The key finding was that chimpanzees are not only able to prepare for an upcoming event, but are also able to mentally construct a new situation which will alter the future (in this case the behaviours of human zoo visitors).

14. Part of being an autonomous individual is self-control. Chimpanzees, like humans, can delay gratification for a future reward; they possess a high level of self-control under many circumstances (Osvath and Osvath, 2008). Self-control depends upon the episodic system. Basically, the perceptual simulations made possible by episodic memory function as a motivational "brake" on current drives in favour of delayed rewards (Boyer, 2008). The sensory

simulation evokes a motivation related to the simulated episode. This motivation competes with whatever other motivations were prior to the simulation. This brings the future into the present: for example, a choice between immediate and delayed satisfaction becomes a choice between two current motivations. It is a trick of the brain allowing for delay of gratification only available to humans and nonhumans with a sufficiently sophisticated sense of self and autobiographical memory. In a series of experiments we demonstrated that chimpanzees can disregard an immediate small piece of food in favour of a tool that would allow them to get a larger piece of food in the future. Chimpanzees can even select a tool which they had never seen before, but which function they could guess, and use it in the future on a reward apparatus. This ability to perceive the function of a novel tool in the future would be impossible without mentally representing the details of the future event (Osvath and Osvath, 2008). We have also shown that chimpanzees plan for future exchanges with humans (Osvath and Persson, 2013). Finally, chimpanzees will even use self-distraction (playing with toys) to cope with the impulse of grabbing immediate candies instead of waiting for more (Evans and Beran, 2007). In summary, chimpanzees can delay a strong current drive for a better future reward, generalize a novel tool for future use, select objects for a much-delayed future task, and do all of this while keeping in mind several different elements of a situation.

15. In addition to the behavioural studies there are also neurobiological findings showing that the chimpanzee brain is activated in the same areas and networks as the human brain during activities associated with planning and episodic memory (Rilling et al, 2007). These findings support the behavorial and cognitive evidence for an autobiographical self in both humans and chimpanzees.

16. When taken together, these studies, as well as other reports on chimpanzee behaviour in the wild, leave little doubt that chimpanzees possess an episodic system similar to humans. Chimpanzees have a self-concept and are aware of their personal past and see a

personal future ahead of them. This also means that they can re-experience past pains and pleasures as well as anticipate such emotions. This in turn implies that they likely can, just as humans, be in pain over an anticipated future event that has yet to occur. For instance, confining someone in a prison or cage for a set time, or for life, would lose much of its power as punishment if that individual had no self-concept. Every moment would be a new moment with no conscious relation to the next. But, chimpanzees and other great apes have a concept of their personal past and future and therefore suffer the pain of not being able to fulfill one's goals or move around as one wants; like humans they experience the pain of anticipating a never-ending situation.

Mathias Osvath

Declared
Sworn before me
nd, Sweden, this 19th day of November, 2013
officio

Notary Public
Helén Kinnman

Dno 1730/13
Fee SEK 270


NOTARIUS

APOSTILLE

(Convention de La Haye du 5 octobre 1961)

1. **Country :** Sweden

   This public document

2. **has been signed by** Helén Kinnman

3. **acting in the capacity of** Notary Public

4. **bears the seal/stamp of** Notary Public in Lund

Certified

5. **at** Stockholm

6. **the** 2013-11-22

7. **by** Adrienne Bonde

   Deputy Notary Public

8. **No** 5499

9. **Seal/stamp:**

10. **Signature:**

5061

EXHIBIT A

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Exhibit: L. to Verified Petition dated December 2, 2013
Affidavit of Emily Sue Savage-Rumbaugh sworn to November 22, 2013 (387-403)

STATE OF NEW YORK
SUPREME COURT COUNTY OF NIAGARA

In the Matter of a Proceeding under Article 70 of the CPLR for a Writ of Habeas Corpus, THE NONHUMAN RIGHTS PROJECT, INC., on behalf of KIKO, Petitioners, v. CARMEN PRESTI, individually and as an officer and director of The Primate Sanctuary, Inc., CHRISTIE E. PRESTI, individually and as an officer and director of The Primate Sanctuary, Inc., and THE PRIMATE SANCTUARY, INC., Respondents.	**AFFIDAVIT OF EMILY SUE SAVAGE-RUMBAUGH** Index No.:

STATE OF IOWA)
) ss:
COUNTY OF Polk)

Emily Sue Savage-Rumbaugh, being duly sworn, deposes and says:

Introduction and Qualifications

1. My name is Emily Sue Savage-Rumbaugh. I received a B.A. in Psychology from Southwest Missouri University in 1970, a M.S. in Psychology from University of Oklahoma in 1975, and a Ph.D. in Psychology from the University of Oklahoma in 1975. I have been awarded honorary Ph.Ds by the University of Chicago in 1997, and Missouri State University in 2008. I work and reside in Des Moines, Iowa.

2. I submit this affidavit in support of Petitioners The Nonhuman Rights Project, Inc. ("NhRP"), on behalf of Kiko, for a writ of habeas corpus. I am a non-party to this proceeding.

3. I am currently the Director Emeritus of the Iowa Primate Learning Sanctuary. I previously served as (in reverse chronological order): (1) an Affiliate Professor at Iowa State University, Simpson college for seven years; (2) a Professor, an Associate, and an Adjunct Professor in the Department of Biology & Psychology at Georgia State University over the course of 25 years; and (3) an Associate Research Professor, Assistant Research Professor, and Research Associate at the Yerkes Primate Research Center at Emory University over a 12 year period. I have regularly taught classes in primate behavior, evolution of innate behaviors, evolution of learned behavior, learning theory, developmental psychology, biology, psycho-biology of language, socio-biology, and introductory ethology.

4. During my career I have received 16 awards from a variety of academic, research, nongovernment, media, and professional organizations. Some of the more notable include: (1) one of the most 100 influential scientists in the world by *Time Magazine* in 2010; (2) selection by the Millennium Project for inclusion on the 100 most influential works in cognitive science in the 20th century for my book titled, "Language comprehension in ape and child," (1993, Monographs of the Society for Research in Child Development); (3) a Fellow at the American Psychological Association; and (4) a Woodrow Wilson Fellow (1970-1975).

5. I am affiliated with a number of professional organizations including: (1) the International Primatological Society; (2) the American Psychological Association; and (3) the American Psychological Association. During the course of my career, I have also received numerous research grants including grants from: (1) National Institute of Child Health and Human Development; (2) Biomedical Research Support Grant, Emory University; (3) World Wildlife Fund; and (4) The Templeton Foundation.

6. My research specialization is in the study of the language learning and cognition of chimpanzees and bonobos. I began studying the cognitive processes and linguistic behavior in captive chimpanzees in 1971. From 1972 to 1975, I conducted captive studies of mother-infant groups of chimpanzees. From 1975 to 1976, I studied the social behavioral of *Pan paniscus* and *Pan troglodytes.* Following that, I spent 13 years (between 1976-1989) conducting studies of symbolic and cognitive processes in *Pan paniscus, Pan troglodytes,* and alinguistic *Homo sapiens.* In 1993, I spent a year studying free-ranging bonobos. From 1989 until present, I have studied the lexical and vocal linguistic ability, musical ability, tool manufacturing ability and general cognitive development of apes, with a specific focus on bonobos.

7. I have written or co-authored seven books, the most relevant include: (1) *Ape Language: From Conditioned Response to Symbol* (1986, New York: Columbia University Press); (2) *Kanzi: A Most Improbable Ape* (1993, NHK Publishing Co: Tokyo, JAPAN); (3) *Kanzi: The Ape at the Brink of the Human Mind* (1994, New York: John Wiley Publishers); (4) *Apes, Language, and the Human Mind* (1998, New York, NY: Oxford University Press); and (5) *Kanzi's Primal Language: The cultural initiation of apes into language* (2005, London: Palgrave/Macmillan). I have also appeared in five films on chimpanzees and apes, three NHK network (Japan) specials and one BBC special.

8. I have published 181 articles on the learning capability, behaviour, ecology, welfare, or conservation of chimpanzees, monkeys, and baboons. These articles are published in many of the in the world's most-cited peer-reviewed scientific journals, including: *Science, American Journal of Primatology, Folia Primatologica* (the official journal of the European Federation for Primatology), *International Journal of Primatology, Journal of Comparative Psychology, Journal of Human Evolution, Behavioral and Brain Sciences,* and *Journal of*

Experimental Psychology, Journal of Biology and Philosophy. I have also published in *Proceedings of the Fifth International Congress of Primatology, Proceedings of the Sixth International Congress of Primatology, Contemporary Primatology, Encyclopedia Americana, Collier's Encyclopaedia, Encyclopaedia Britannica Yearbook, The Cambridge encyclopaedia of human evolution* and *Encyclopaedia of Neuroscience.* Specific topics of these publications include: the use of symbolization and language by chimpanzees, group formation among captive mother-infant chimpanzees, human-oriented courtship behavior in a human-reared chimpanzee, mothering behavior towards a kitten by a chimpanzee, play and socio-sexual behaviour in chimpanzees, chimpanzee communication, chimpanzee tool use, chimpanzee cognition, chimpanzees and protolanguage, primate intelligence, chimpanzee counting, communicative intentionality in the chimpanzee, the relationship between language in apes and human beings, summation in the chimpanzee, care of captive chimpanzees, imitation by an ape, grammatical development by an ape, the invention of protogrammar by an ape, imitative learning in chimpanzees, delay of gratification in chimpanzees, spontaneous logicomathematical constructions by chimpanzees, primate geometry, and ape consciousness.

9. I regularly give invited lectures and take part in international symposia on primatology, which I have done since 1978. In the United States, I have given lectures at Columbia University, Emory University, Princeton University and the University of Chicago, among many other notable educational institutions. I have also given lectures and presentations on primates in other counties including: England, Japan, Canada, Germany, Australia, Portugal, France, Mexico, Sweden and Berlin. My Curriculum Vitae fully sets forth my educational background and experience and is annexed hereto as **"Exhibit A"**.

Basis for Opinions

10. The opinions I state in this affidavit are based on my professional knowledge, education, training, research and field work, as well as my review of peer-reviewed literature. A full reference list of peer-reviewed literature cited herein is annexed hereto as **"Exhibit B"**. In addition, the opinions set forth herein are based on many years of collaboration and research with my colleague, Duane Rumbaugh. Professor Rumbaugh and I have designed and implemented research experiments together in a joint laboratory and have co-authored numerous peer-reviewed articles.

Opinions

11. Chimpanzees share about 99% of our DNA (Wildman and Goodman 2002; Wildman, Grossman, and Goodman, 2003; The Chimpanzee Sequencing and Analysis Consortium 2005). This exceptionally high degree of genetic relatedness between chimpanzees and humans cannot, by itself, ensure that chimpanzees possess any specific human abilities. It is however, the single most important piece of scientific evidence to date regarding chimpanzee potential. It indicates that when behavioral studies of chimpanzees suggest that they are capable of self-aware conscious action, the capacity to reason and think, the ability to acquire symbolic language, there is reason to take these results seriously. It also ensures the following:

a. Chimpanzee brain and behavior, like human brain and behavior, are, flexible and nearly completely dependent upon learning (Norman, 2002).

b. Social and physical environment during prenatal, post-natal and childhood development plays a critical role in the development of adult cognitive capacities in the chimpanzee (Stern, D. 1971; Stern, D. 1977; Acqarone, 2007).

c. Early mother/infant behavioral rearing trajectories are the single most important factor in determining manifestation of higher order cognitive capacities and conscious reflective capacity in adult chimpanzees (Trevarthan, 1978; Trevarthan, 1998; Brakke and Savage-Rumbaugh, 1999). When behavioral studies present differing assessments of chimpanzee cognitive capacities, differing early experience are the most probable cause (Greenfield, Maynard, Boehm, Schmidtling, 2000; Greenfield, Lyn, and Savage-Rumbaugh; 2006. Greenfield, Lyn, Savage-Rumbaugh, 2008; Greenfield, 2009).

d. That chimpanzees, like us, will manifest a developmental program that is designed to allow for the manifestation of increasing levels of consciousness awareness and self-understanding throughout adulthood, through culture and learning (Greenspan, 2004, Rumbaugh, D. M. & Savage-Rumbaugh; 1996). That significant behavioral plasticity present in both humans and chimpanzees means that the "normal" characteristics of any conscious self-aware individual (chimpanzee or human) will not manifest in an identical manner in every member of that species (Kellogg and Kellogg, 1933; Kitcher, 2006; Savage, Temerlin, and Lemmon 1973; Savage, 1975; Savage-Rumbaugh, 1984).

e. That, under natural conditions, chimpanzees will develop and utilize self-awareness, self-agency and intelligence to survive (Wrangham, 2009; Muller and Wrangham, 2009; Nishida, Zamma, Matsusaka, T., Inaba, McGrew, W.C., 2010, Goodall, 1986).

f. That chimpanzees, in natural conditions, will come to employ cause-effect reasoning to construct an understanding of their environment (Boesch, 2000,

2009; 2012; Savage-Rumbaugh, 1990; Rumbaugh and Washburn, 2003). They will also construct a social structure that is rule-based, conscious and successful thereby allowing them to survive as group, by virtue of culture, not by natural instinct (Nishida, 1968; 1970, 1979; Sugiyama, 1968, 1969, 1973a,b, 1981; Telekia, 1973; McGrew and Tutin, 1973; Tuttle, 1986; Preutz, 2002). Their DNA provides a neural basis for learning, but very few innate patterns of reaction to specific environmental stimuli (Tutin, 1975)

12. No design differences have been discerned between the structure of chimpanzee and human brains (Passingham, 1982; Passingham and Ettlinger, 1974).

13. Broca's Area and Wernicke's Area are regions in the brain that enable symbolic communications. The areas that correspond to Broca's Area and Wernicke's Area in chimpanzees correspond to those parts of the brain that enable their symbolic communications (Passingham, 1981).

14. In our laboratories, Professor Rumbaugh and I have demonstrated that chimpanzees reared early on in rich social linguistic worlds come to use geometric symbols (i.e. circles, squares, etc) the way we employ printed words (Rumbaugh, Gill, and Von Glasersfeld, 1973, Rumbaugh, 1977; Rumbaugh, 2013; Rumbaugh and Washburn, 2003). These chimpanzees are not reared in impoverished circumstances or social isolation. They have peers as well maternal and paternal familial social attachments. The various geometric symbols serve as words to them, and to the humans communicating with them (Savage-Rumbaugh, 1986; 1994).

15. The more learned amongst them can discuss social situations with each other and with those human researchers if the researchers attend to and understand their nonverbal

linguistic abilities. (Menzel, 1999). For example, they are capable of telling the researchers where they want to go, who they want to be with, the foods they want to eat (see Kanzi.bvu.edu). Those who comprehend spoken English, can communicate even more complex things, as long as the researchers are willing to patiently inquire and listen to their "yes/no" answers. They can answer yes/no questions about their inner most thoughts, plans, feelings, intentions, dislikes and likes if they trust the researcher and believe that this knowledge will not be employed against them (NHK, unpublished footage). They can also answer questions about the likes and dislikes of their companions and will tell researchers what other apes, who cannot comprehend English, want and/or think (Savage-Rumbaugh, 1986; Savage, 1975).

16. Chimpanzees can recognize themselves in mirrors and on television and use a flashlight to examine the interiors of their own throats. (Savage-Rumbaugh, 1986). Panzee, a chimpanzee reared with humans and bonobos, evidenced a sense of self and passed the mirror recognition test at 6 months of age. They demonstrate that they can recognize themselves in photos, videos, and masks ((Menzel, Savage-Rumbaugh, and Lawson, 1985; Savage-Rumbaugh, 1986). As adults they continue to recognize pictures of themselves and others, when they were children (Personal observation, Beran, SavageRumbaugh, Brakke, Kelley, & Rumbaugh, 1988; Beran, Pate, Richardson,& Rumbaugh, 2000). This capacity to "step-outside" the self and reflect upon ones own behavior, as one might reflect on the behavior of another- allows one to become the objects of one's own thought. This capacity is at the root of human cultural, linguistic and moral systems (Savage-Rumbaugh and Hopkins, 19896; Savage-Rumbaugh, and Rumbaugh, 1998). Between the ages of two and three, chimpanzees are capable of deception. (Savage-Rumbaugh and McDonald, 1988). By three, they enjoy hiding games and can hide for as long as several hours without moving, even as researchers pass close by searching for them. By

adulthood, this capacity is translated into long planned stealthy raids on neighboring rival groups (Boesch, 2000, 2012).

17. Chimpanzees have demonstrated that they have intentions. They employ symbols to express themselves (Savage-Rumbaugh, 1986; Kanzi.bvu.edu). They do not simply respond to stimuli nor do they use symbols or signs as tricks to gain rewards. They are able to state what they are going to do, in advance of acting, then carry out their stated action. Thus their statements of intent match their actions. Examples include statements made by two language-trained chimpanzees, Sherman and Austin, who told each other the foods they were intending to share and told experimenters which items they were going to give to them (Savage-Rumbaugh, Shanker, Taylor, 1996).

18. With the emergence of the ability to state their intentions, Sherman and Austin also revealed that not only did they recognize and understand differential knowledge states between themselves, but they that language allows separate beings to bring their different knowledge states into accord with their own imminent intentions and thus to plan co-actions (Savage-Rumbaugh, Shanker and Taylor, 1998). For example, Sherman and Austin began to say 'Go outdoors' and then to head for the door, or 'Apple refrigerator' and then take an apple from the refrigerator (rather than any of the other foods that were located in the refrigerator). These were not requests, but statements of intent. When they reliably told human beings what they were going to do, the humans did not have to wonder where they were headed. This gave them an independence of action and social freedom that can only be developed within a language-based society Greaves, Bensen, Taglialatela, Thibault, 2005)

19. The chimpanzees Sherman and Austin began (on their own and without training) to use symbolic means to co-ordinate their intended behavior with that of others by explaining

what they were going to do before they did so. In order to be able to produce statements about intended action, for the purpose of co-coordinating future actions with others, one must be able to form a thought and hold it in mind until agreement is reached between two parties. Coordinated actions can then take place between two sentient minds, because both have come to an agreement prior to action.

20. Chimpanzees demonstrate that they have learned symbols for hundreds of items, events and locations. They remember these symbols for decades, and learn new symbols without being taught, but by observing others use them (other apes or humans.) They can master syntax. There is no essential difference between what words chimpanzees learn mean to them, and what words humans learn mean to them.

21. Chimpanzees spontaneously begin comprehending both lexigrams and human speech, and not merely single words, but the specifics of hundreds of novel requests, and the understanding of conditional clauses. For example, the first time Panzee was told that there was a "Gorillas hiding just ahead in the woods" her hair immediately became erect and she began to walk with careful stealthy footsteps while looking cautiously for a gorilla. The first time she was told "If you will share your cereal with Sherman, you can have some more" -- she walked over to Sherman's cage and pushed her box of cereal it toward him. Another example was the understanding of such novel sentences as "If you hold still, I can put your backpack on." Conditional (if/then) relationships make up and very large portion of language use. Once children understand if/then linguistic structures almost anything can be negotiated linguistically, than through physical action.

22. Chimpanzees grasp the elements of language. For example, one day a human named Tim was standing outside the room of Lana, a language-trained chimpanzee, while

drinking a coke. Lana had learned the word for "coke," but had previously employed the word only in the context of obtaining coke from her vending machine, by using the stock sentence "Please machine give coke." She had never used the word "coke" in any other way or in any other sentence. One day there was no coke in her vending machine. She saw Tim standing outside drinking his own coke and she wanted one. She had learned the stock sentences "Tim give Lana this drink," and "Lana move out of room." Suddenly -- with no demonstration -- she formed the novel utterance "Lana drink this out of room?" Elements of all of these different stock phrases were thereby recombined to form the appropriate new sentence "Lana drink this out of room?" in a meaningful novel sentence. In order to test if this was an accident, the following day Tim intentionally repeated the behavior of drinking a coke outside of her room. This time Lana asked, "Please Lana drink coke this room." This was a slightly different utterance, but with a similar meaning and grammatically correct form. It indicated that Lana possessed a linguistic flexibility far beyond any sentences she had been taught and that she recognized many different types of utterances could be used to convey the same message. This is one of hallmarks of language, i.e. there is not one-to-one relationship between utterances and events. Instead there is an infinite array of flexible ways of communicating the same or similar things with just slight changes in meaning. In this case, her second novel utterance made clear WHAT it was that Lana wanted to drink, as Tim had a look on his face that very "official experimenter" oriented. (The previous day he had just been drinking a coke not doing a specific test.) Lana also added the polite function of "Please" -- again showing sensitivity to the difference in Tim's mood which she read from his face and body language.

23. When Sherman and Austin communicated with each other, a variety of spontaneous communicative gestures arose to augment their symbolic communication (Savage-

Rumbaugh, Rumbaugh, and Boysen, 1978). These gestures indicated that they paid close attention to the visual regard of the other. For example, if Austin were looking away when Sherman selected a symbol, Sherman would wait until Austin looked back. He would then point to the symbol he had used. If Austin still hesitated, Sherman would point to the food that the symbol symbolized (Savage-Rumbaugh, 1986; Kanzi.bvu.edu). If Austin's attention wandered even more, Sherman would take Austin's head and turn it toward the keyboard. If Sherman were not attending to Austin's request, Austin would gaze steadfastly at the symbol until Sherman took note. They recognized that the speaker had to monitor the listener, watch what he was doing and make judgments about his state of comprehension. Depending upon these judgments, the speaker had to decide how to proceed with conversational repair.

24. Sherman and Austin also invented an elaborate and highly sophisticated and creative rule-based system for intra-species gaze, symbols, body posture, head movements and gestures (kanzi.bvu.edu; Savage-Rumbaugh, Rumbaugh, Boysen, 1979).

25. Chimpanzees announce what that they are about to do, where they are going, what assistance they want from others, and how they feel (Savage-Rumbaugh, Romski, Sevcik and Pate (1983)). They announce what they are going to retrieve from an array of objects that they've seen in another room (Savage-Rumbaugh, Pate, Lawsen, Smith and Rosenblum, 1983). They announce that they have seen important social events such as when they have seen another chimpanzee that has been anesthetized rolled by on a cart (this is extremely upsetting to them), or when they see that a gorilla has attacked another chimpanzee on television (Savage-Rumbaugh, Scanlon and Rumbaugh, 1980; Pesonal observation).

26. Chimpanzees accomplish "cross-modal perception". This means that they can take in information in one modality such as vision or hearing, and can internally translated to

information in another modality. They can also take in symbolically encoded information and translate it into any non-symbolic mode. For exampled when shown a picture of an object, they can retrieve that object by touch alone. They can also retrieve the correct object by touch when shown only the symbol representing that object (Savage-Rumbaugh, Hopkins, and Sevcik, 1988).

27. Chimpanzees recount what happened yesterday to an otherwise unknowing listener. For example -- if Panzee saw food hidden in a particular location, she can tell someone who has no idea where it is, how to go the place even though the original hiding was one, two, three, four or five days later (Menzel, 1999). Chimpanzees identify hidden items by name and, at times, state that it is covered with leaves and sticks (Menzel, 1999). Chimpanzees direct a human to a specific spot to retrieve the item through the orchestrated use of their lexigrams, vocalizations, pointing, and affective behaviors, such as facial expression. As the person being directed to a hidden item gets close, Panzee will smile, nod her head, produce breathy panting laughter -- etc. -- all with deliberate intent. Chimpanzees then celebrate when food is retrieved. They do so by giving loud pant hoots, rushing around in circles, hugging each other, and walking upright -- much like people act just after their team wins a close football game. (Personal observation). They also celebrate when they anticipate that they are, at last, successfully solving a computer task (by giving high pitched screams followed by pant hoots, hugging the experimenter and sometimes slapping themselves in joy) (Personal Observation).

28. Chimpanzees almost instantaneously distinguish relative masses and amounts (Rumbaugh, Savage-Rumbaugh, and Hegel, 1987; Rumbaugh, Savage-Rumbaugh, and Pate, 1988).

29. Chimpanzees have been taught the principle of number lines, cardinality and numerosity. They have counted as high as 21. (Unpublished data, Savage-Rumbaugh; Rumbaugh 2003; Rumbaugh, Hopkins, Washburn, and Savage-Rumbaugh, 1989).

30. Chimpanzees engage in mediational learning (Meador, Rumbaugh, Pate, Bard, 1978). They are able to "figure out" rules that allow them to solve new problems -- based on past information which they collate over multiple trials and reflect upon. This requires an ability to compute relationships among a variety of things and events. They understand they are positing predictive or cause-and-effect relationships about tasks they work on, and that they have control over what they do and what will happen (Rumbaugh, 1971; .Rumbaugh and McCormack, 1969; Savage-Rumbaugh, 1990).

31. Chimpanzees use their imagination to engage in pretend-aggression and other forms of pretend. Sherman delighted in pretending that a King Kong doll was biting his fingers and toes. He would startle his caretakers by pretending to be in pain as he poked a needle in his skin and out the other side, being careful to just pierce the out layer of skin which was rather thick and which perhaps was not very painful. It looked awful to his caregivers, and he took great delight in the reactions his teasing provoked in his caretakers. He thought this so much fun that he began to try this trick in other locations around his body to see where he would get the greatest reaction for the caretakers (Kanzi.bvu.edu, personal observation).

32. Chimpanzees demonstrate, as did Lana in our laboratory, that she had a theory of mind, that she knew she had a mind, that she knew that a human had a mind, and that she knew that her mind and state of knowledge differed from that of the human. She believed that others had minds, thoughts, intentions, feelings, needs, desires, and intentions (Rumbaugh, 1977, in preparation, Rumbaugh 2013). Similarly, Sherman and Austin were presented with the need to

give each other specific information about the nature of 14 hidden foods. Only Sherman knew the contents of the container. It was his job to tell Austin, in whatever way he could, the name of the hidden food. It was Austin's job to translate this information back into geometrical symbols request. They were not shown how to do this, they were merely provided with the means to do so as the food trademarks were left on the floor in Sherman's room. The task required that they recognize that labels such as 'Coca Cola' and that 'M and M' were symbols. That Austin could understand the information Sherman was trying to convey even though neither had employed such trademarks as symbols ever before in their lives. This task was essentially a version of "mind-reading" tasks in which one chimpanzee has knowledge that another does not have. Both Sherman and Austin used these food labels, from the first trial, to tell the other individual the type of food that was hidden in the container. They then were asked to change roles and continued the successful symbolic informational exchange, again without making any errors at all (Savage-Rumbaugh, 1986). The uses that chimpanzee's make of language are very similar to those that humans employ, in that tend to give "new information" and/or to speak about things that are not obvious are given from the context alone. They focus on things that they logically assume the listener will not know. Young children employ language in a similar way. Thus the manner and mode of their language use itself indicates that they have a "theory of mind concept," that is, they believe other individuals have minds with content and that such content often differs. Language is a means to bring content into alignment in a manner that is beneficial to speaker and listener, allowing them to coordinate their behavior (Greenfield and Savage-Rumbaugh, 1984).

33. Chimpanzees are able to use symbols to communicate wishes, desire, needs, abstract information and sometimes secrets to one another. They tell each other what foods

experimenters have hidden in containers or in other rooms, what tools are needed to open containers, and locations where food has been left. The show each other how to use tools and they tell each other "new words" that they have assigned to objects that did not have names before (Savage-Rumbaugh, 1968; Savage-Rumbaugh, Rumbaugh, and Boysen, 1978a; Savage-Rumbaugh, Rumbaugh, and Boysen, 1978b).

Emily Sue Savage-Rumbaugh

Sworn to before me
this 22nd day of November, 2013

Krista Magill
Notary Public

STATE OF Iowa)
) ss:
COUNTY OF Polk)

On the 22nd day of November in the year 2013 before me, the undersigned, a notary public in and for said state, personally appeared Emily Sue Savage-Rumbaugh, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her capacity, and that by his/her signature on the instrument, the individual, or the person upon behalf of which the individual(s) acted, executed the instrument, and that such individual made such appearance before me the undersigned in the County of Polk and the State of Iowa.

Krista Magill
Notary Public

KRISTA L. MAGILL
Commission Number 763646
My Commission Expires
6-25-16

My Commission Expires: 6-25-16

STATE OF NEW YORK
SUPREME COURT COUNTY OF NIAGARA

In the Matter of a Proceeding under Article 70 of the CPLR for a Writ of Habeas Corpus, THE NONHUMAN RIGHTS PROJECT, INC., on behalf of KIKO, Petitioners, v. CARMEN PRESTI, individually and as an officer and director of The Primate Sanctuary, Inc., CHRISTIE E. PRESTI, individually and as an officer and director of The Primate Sanctuary, Inc., and THE PRIMATE SANCTUARY, INC., Respondents.	Index No.:

STATE OF IOWA)
) ss:
COUNTY OF POLK)

1. This Certificate of Conformity is submitted pursuant to New York CPLR 2309(c) and New York Real Property Law § 299-a.

2. I am an attorney duly licensed to practice law in the State of Iowa.

3. I certify that the Affidavit of Emily Sue Savage-Rumbaugh, signed and dated on November 22, 2013, was taken in the manner prescribed by the laws of the State of Iowa.

Dated: November 22, 2013
Des Moines, Iowa

Jerry L. Anderson, Esq.
610 E. Salem Ave.
Indianola, Iowa 50125

Exhibit: A. to Affidavit of Emily Sue Savage-Rumbaugh sworn to November 22, 2013 Curriculum Vitae (404-440)

CURRICULUM VITAE

Emily Sue Savage-Rumbaugh

Address: Iowa Primate Learning Sanctuary
4200 SE 44th Avenue
Des Moines, IA 50320
(515) 243 – 3580

Education

B.A.	(Cum Laude), Southwest Missouri University: Psychology; May, 1970
M.S.	University of Oklahoma: Psychology; May, 1972
Ph.D.	University of Oklahoma: Psychology; May, 1975
	Faculty Advisor: Dr. W. B. Lemmon

Current Position

Director Emeritus -- Iowa Primate Learning Sanctuary

Academic Appointments

2004-2011	Affiliate Professor Iowa State University, Simpson College
1992-2004	Professor, Dept. of Biology & Psychology, Georgia State University
1987-92	Assoc. Professor, Dept. of Biology, Georgia State University
1984-92	Assoc. Research Professor, Yerkes Primate Research Center, Emory University
1983-87	Adjunct Assoc. Professor, Dept. of Biology, Georgia State University
1977-84	Ass't Research Professor, Yerkes Primate Research Center Emory University
1976-77	Research Assoc., Yerkes Regional Primate Research Center, Emory University
1975-76	Post-Doctoral Fellow, Georgia State University
1972-75	Graduate Teaching Ass't, Department of Psychology, University of Oklahoma

Areas of Teaching Competency

primate behavior, evolution of innate behaviors, evolution of learned behavior, learning theory, developmental psychology, biology, psycho-biology of language, socio-biology, introductory ethology.

Research Experience

1970-71	Study of cognitive and verbal learning processes of children
1971-72	Study of cognitive processes and linguistic behavior in captive *Pan troglodytes*
1972-75	Captive studies of mother-infant groups of *Pan troglodytes*
1975-76	Comparative studies of the social behavioral of *Pan paniscus* and *Pan*

	troglodytes
1976-1989	Studies of symbolic and cognitive processes in *Pan paniscus, Pan troglodytes,* and alinguistic *Homo sapiens*
1989-to now	Studies of the lexical and vocal linguistic ability, musical ability, tool manufacturing ability and general cognitive development of apes, with a specific focus on bonobos.
1993	Studies of free-ranging bonobos.

Awards and Honors

Bob Green Fellowship, for academic distinction, Southwest Missouri University, 1969-1970.

Woodrow Wilson Fellow, 1970-75.

First Place, Graduate Student Paper Competition, Midwest Psychological Association, Oklahoma City, 1972.

Fellow, Division 6, APA 1985-present

Fellow, Division 1, APA 1985-present

Fellow, APS 1996-present

National Lecturer, Sigma Xi, The Scientific Research Society, July 1, 1988 to June 30, 1990.

Representative for Women in Science, Brigham Young University, 1989

The Smithsonian Institution's display of "Understanding Ourselves, Understanding Each Other," sponsored by the American Psychological Association's Centennial Convention, featured research of the Language Research Center, Georgia State University, to which I made major contributions. A film by the same name of the display is now distributed nationally for educational purposes by the APA, 1992

Nobel Conference XXXII Invited Speaker, "Apes at the End of an Age: Primate Language and Behavior in the 90's", Gustavus Adolphus College, October, 1996.

Honorary Doctor of Science, The University of Chicago, Chicago, Ill., June, 1997.

Author, "Language comprehension in ape and child," published Monographs of the Society for Research in Child Development (1993), selected by the "Millennium Project," a listing of the top 100 most influential works in cognitive science in the 20th century by the University of Minnesota Center for Cognitive Sciences, 1999.

Leighton A. Wilkie Award in Anthropology, Indiana University, November, 2000.

Selected as a Woman of Influence, by Des Moines Business Record, 2007

Honorary Doctor of Science, Missouri State University, 2008.

Selected as one of the most 100 Influential scientists in the world, *Time Magazine*, 2010

Committees

1996-2004	Editorial Board of Language and Communication.
1989	Site visit committee member, National Institute of Child Health and Human Development.

1989-2004 Neurobiology and Behavior Development Committee Department of Biology, Georgia State University

Professional Organizations

American Psychological Association
American Psychological Society
International Primatological Society
Society for Research and Child Development

PUBLICATIONS

Books Authored

Savage-Rumbaugh, E. S. (1986). Ape Language: From Conditioned Response to Symbol. New York: Columbia University Press.

Savage-Rumbaugh, E. S. (1993). Kanzi: A Most Improbable Ape. NHK Publishing Co: Tokyo, JAPAN.

Savage-Rumbaugh, S., & Lewin, R. (1994). Kanzi: The Ape at the Brink of the Human Mind. New York: John Wiley Publishers. (Translated in German and Japanese)

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Savage-Rumbaugh, E. S., Shanker, S., & Taylor, T. J. (1998). Apes, Language and the Human Mind. New York, NY: Oxford University Press.

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Segerdahl, P., Fields ,W.M., & Savage-Rumbaugh,E.S. (2005) *Kanzi's Primal Language: The cultural initiation of apes into language*. London: Palgrave/Macmillan.

Films

Savage-Rumbaugh, E. S. Documentary film depicting symbol use and testing in the pygmy chimpanzee. National Geographic Special, February 23, 1986.

Savage-Rumbaugh, E. S. Ape language: From conditioned response to symbol. (1986). Distributed by Psychological Cinema Registrar, Pennsylvania State University. (Edited 2-hour tape).

Rumbaugh, D. M., Hopkins, W. D., Washburn, D. A., Savage-Rumbaugh, E. S. & Runfeldt, S. (1989). Lana chimpanzee learns to count by "Numath". Psychological Cinema Register, Pennsylvania State University, University Park, PA.

Greenfield, P. M. & Savage-Rumbaugh. (1990). Ape language work featured in the Psychology Telecourse Language Program. Coastline Community College and KOCE-TV (Prod.), Huntington Beach, California.

Savage-Rumbaugh, Murphy, Sevcik, Williams, & Rumbaugh (1994). Family history of Language Research Center Bonobos detailing how each was raised and the resulting differences in language ability. Includes data base and segments of published research filmed by NHK of Japan. Bonobo People

NHK Special Feature: Kanzi: An Ape of Genius (1994).

BBC Special Feature: Chimptalk (1994).

NHK Special Feature: Kanzi II (2000).

NHK Special Feature: Kanzi III (2002).

Articles

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Savage, E. S., Temerlin, J. W., & Lemmon, W. B. (1973). Group formation among captive mother-infant chimpanzees (Pan troglodytes). Folia Primatologica, 20, 453-473.

Lemmon, W. B., Temerlin, J. W., & Savage, E. S. (1975). The development of human-oriented courtship behavior in a human-reared chimpanzee (Pan troglodytes). In S. Kondo, M. Kawai, & A. Ehara (Eds.), Proceedings of the Fifth International Congress of Primatology, Contemporary Primatology (pp. 292-294), Karger: Basel.

Savage, E. S., Temerlin, J. W., & Lemmon, W. B. (1975). The appearance of mothering behavior toward a kitten by a human-reared chimpanzee. In S. Kondo, M. Kawai, & A. Ehara (Eds.), Proceedings of the Fifth International Congress of Primatology, Contemporary Primatology (pp. 287-291). Karger: Basel.

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Savage, E. S., & Bakeman, R. (1978). Sexual morphology and behavior in Pan paniscus. Proceedings of the Sixth International Congress of Primatology (pp. 613-616). New York: Academic Press.

Savage-Rumbaugh, E. S., & Rumbaugh, D. M. (1978). Symbolization, language and chimpanzees: A theoretical reevaluation based on initial language acquisition

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Savage-Rumbaugh, E. S. (1987). Communication, symbolic communication, and language: A reply to Seidenberg and Petitto. Journal of Experimental Psychology: General, 116, 288-292.

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Savage-Rumbaugh, E. S. and McDonald, K. (1988). Deception and social manipulation in symbol using apes. In R. W. Byrne & A. Whiten (Eds.), Machiavellian Intelligence: Social Expertise and the Evolution of Intellect in Monkeys, Apes, and Humans (pp.224-237). London: Oxford University Press.

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In Press

Savage-Rumbaugh, E. S., D. M. Rumbaugh, J. E. King, J. Taglialatella (in press). Foundations of language in a Festschrift volume for Prof. Holloway, Stone Age Institute, Indiana University

Savage-Rumbaugh, E.S., & Fields, W.M. (in press) "Maternal care, self agency, moral agency, epigenetics and culture: Implications for the rise of language in *Homo symbolicus and Pan symbolicus.*" Volume from the Homo Symbolicus Conference.

Lyn, Greenfield, and Savage-Rumbaugh (in press) Semiotic Combinations in *Pan:* A Comparison of Communication in a Chimpanzee and Two Bonobos. *First Language*

Rumbaugh, D. M., Hillix, A., & Savage-Rumbaugh, E. S. (in press). The emergence of reason, intelligence, and language by humans and animals. *Yale Journal of Criticism.*

PRESENTATIONS

Presentations 1978

Savage-Rumbaugh, E. S. (1978, Fall). Symbolic communication between chimpanzees. Invited seminar speaker, Swarthmore College, Swarthmore, PA.

Savage-Rumbaugh, E. S. (1978, Fall). Tool-use and symbolic communication in the chimpanzee. Invited seminar speaker, Princeton University, Princeton, NJ.

Savage-Rumbaugh, E. S. (1978, Fall). Symbol acquisition in apes: A discussion of the

paradigms. Invited seminar speaker, Rockefeller University, NY.

Presentations 1980

Savage-Rumbaugh, E. S. (1980, January). The status of chimpanzee language research. Invited seminar speaker, Kenyon College, Gambier, OH.

Savage-Rumbaugh, E. S. (1980, May). Straight from the horse's mouth. Paper presented at Conference on Clever Hans Phenomenon: Communication with horses, whales, apes, and people, New York Academy of Sciences.

Savage-Rumbaugh, E. S. (1980, November). Ape language research. Invited speaker, Georgia chapter of Sigma Xi.

Presentation 1981

Savage-Rumbaugh, E. S. (1981, February). Emergence of communication skills in two chimpanzees. Invited seminar speaker, Department of Anthropology and the Center for Cognitive Studies, University of Chicago.

Savage-Rumbaugh, E. S. (1981, November). Levels of Communicative symbol use: Prerepresentational and representational. Invited presentation at the T. C. Schneirla Conference on Developmental Genetics and Learning, Wichita, KS.

Savage-Rumbaugh, E. S. (1981, November). Ape language research: Update and clinical implications. Short course presented at the Annual Meeting of the American Speech-Language-Hearing Association, Los Angeles, CA.

Presentations 1982

Savage-Rumbaugh, E. S. (1982, March). Language behaviors of humans and apes -- pigeons, too? Discussant for symposium at the annual meeting, Southeastern Psychological Association, New Orleans, LA.

Savage-Rumbaugh, E. S. (1982, May). Behavioral similarities of chimpanzees and pigeons: Superficial or real? Invited speaker, Meeting of the Association for Behavior Analysis, Milwaukee, WI.

Savage-Rumbaugh, E. S. (1982, June). Acquisition of functional symbol usage in apes and children. Invited speaker, Harry Frank Guggenheim Conference on Animal Cognition, Columbia University, NY.

Romski, M. A., White, R. A., and Savage-Rumbaugh, E. S. (1982, June). Language training using communication boards: some special considerations. Presented at the annual meeting, American Association on Mental Deficiency, Boston, MA.

Savage-Rumbaugh, E. S. and Rumbaugh, D.M. (1982, August). Referential symbol skills of two chimpanzees. Paper presented at the Congress of the International

Primatological Society, Atlanta, GA.

Savage-Rumbaugh, E. S. (1982, November). Primate communication and language. Invited speaker, Symposium on Human Origins, University of Alabama, Birmingham, AL.

Presentations 1983

Pate, J. L. and Savage-Rumbaugh, E. S. (1983, March). Does a chimpanzee know what it is saying? Presented at the annual meeting, Southeastern Psychological Association, Atlanta, GA.

Savage-Rumbaugh, E. S. (1983, May). Verbal behavior in the chimpanzee. Invited address, Association for Behavioral Analysis, Milwaukee, WI.

Savage-Rumbaugh, E. S. (1983, June). Ape language and the issue of intentional communication. Keynote speaker, Annual Meeting of the Animal Behavior Society, Lewisburg, PA.

Savage-Rumbaugh, E. S. (1983, June). Chimpanzee Language Learning: Current Status. Invited presentation at the conference on Dolphin behavior and cognition: Comparative and ecological aspects. Target papers, ONR sponsored conference, Hubbs-Sea World Research Institute, San Diego, CA.

Savage-Rumbaugh, E. S. (1983, August). Language: A continuum from ape to human. Invited paper at the Symposium of the American Psychological Association, Anaheim, CA.

Savage-Rumbaugh, E. S. (1983, September). Ape language from a behavioral perspective. Paper presented at an Invitational Conference on Research Paradigms, coordinated by the National Institute of Child Health and Human Development, Washington, D. C.

Savage-Rumbaugh, E. S. (1983, November). Comparisons of preverbal competency between Pan troglodytes and Pan paniscus. Invited paper presented at Symposium on the pygmy chimpanzee, International Primatological Conference, Atlanta, GA.

Savage-Rumbaugh, E. S. (1983, December). Apes, language, and what their accomplishments have to say to human beings. Keynote Speaker, Women in Science Symposium, Kennesaw College, Kennesaw, GA.

Presentations 1984

Savage-Rumbaugh, E. S. (1984, January). Do apes really talk? Invited speaker, Biological Sciences Symposium, University of Georgia, Athens, GA.

Savage-Rumbaugh, E. S. (1984, May). Contrasts in symbolic communicative competency in Pan troglodytes and Pan paniscus. Invited paper presented at Association of Behavioral Analysis, Nashville, TN.

Savage-Rumbaugh, E. S. (1984, May). Language acquisition in the great apes: And overviews. Paper presented at the Conference for the Integration of the Sciences, Georgia State University, Atlanta, GA.

Savage-Rumbaugh, E. S. (1984, June). The capacity of animals to acquire language -- Do species differences have anything to say to us? Invited paper presented at the Royal Society of England, London.

Presentations 1985

Savage-Rumbaugh, E. S. (1985, May). Language acquisition and cognition in the chimpanzee. Invited symposium speaker, Rutgers Symposium on Animal Cognition, New Brunswick, NJ.

Savage-Rumbaugh, E. S. (1985, June). Language acquisition in two species of apes. Keynote speaker, Annual Scientific Meeting of the American Society of Primatologists, University of Buffalo, State University of New York, Niagara Falls, NY.

Savage-Rumbaugh, E. S. (1985, August). Language learning without training in the pygmy chimpanzee. Invited symposium speaker, American Psychological Association, Division of Experimental Psychology, Los Angeles, CA.

Presentations 1986

Savage-Rumbaugh, E. S. (1986, January). Language acquisition and nonverbal behavior in apes. Invited speaker, Emory Anthropology Department, Atlanta, GA.

Savage-Rumbaugh, E. S. (1986, February). The implications of ape language studies for Philosophy and Biology. Invited keynote speaker at the "Can Philosophy Help Biology... and vice versa" conference, University of Georgia, Athens GA.

Savage-Rumbaugh, E. S. (1986, March). Language learning and English comprehension in the pygmy chimpanzee. Invited speaker, Behavioral Biology Seminar Series, Rockefeller University, NY.

Savage-Rumbaugh, E. S. (1986, March). The pygmy chimpanzee learns to use and comprehend symbols without training. Invited speaker, Class of 1902 Lecture Series, Bryn Mawr, NY.

Savage-Rumbaugh, E. S. (1986, June). Comprehension of spoken English and synthesized speech in a pygmy chimpanzee (Pan paniscus). Presented at the eighth annual meeting, American Society of Primatologists, Austin, TX.

Brakke, K. E., Savage-Rumbaugh, E. S., McDonald, K., & Hopkins, W. D. (1986, June). A comparative analysis of symbol acquisition in two pygmy chimpanzees (Pan paniscus). Paper presented at the Eighth Annual Meeting, American Society of

Primatologists, Austin, TX.

Hopkins, W. D., & Savage-Rumbaugh, E. S. (1986, June). Vocal communication in the pygmy chimpanzee (Pan paniscus) as a result of differential rearing experiences. Paper presented at the Eighth Annual Meeting, American Society of Primatologists, Austin, TX.

Rumbaugh, D. M., & Savage-Rumbaugh, E. S. (1986, June). Summation in the chimpanzee. Paper presented at the Eighth Annual Meeting, American Society of Primatologists, Austin, TX.

Sevcik, R. A., Savage-Rumbaugh, E. S., & McDonald, K. (1986, June). Video experience and symbol acquisition in a pygmy chimpanzee (Pan paniscus). Paper presented at the Eighth Annual Meeting of the American Society of Primatologists, Austin, TX.

Greenfield, P. M. and Savage-Rumbaugh, E. S. (1986, July). Imitation is not rote: Pragmatics of repetition in child and chimpanzee. Presented at the XIth Congress of the International Primatological Society, Gottingen, West Germany.

Savage-Rumbaugh, E. S., Romski, M. A., Hopkins, W. D., & Sevcik, R. A. (1986, November). Species differences in language acquisition and use. Invited presentation at the Chicago Academy of Science Conference, "Understanding Chimpanzees," Chicago, IL.

Presentations 1987

Savage-Rumbaugh, E. S. (1987, March). A new look at ape language: Comprehension of vocal speech and syntax. Invited speaker at the 35th Annual Nebraska Symposium on Motivation, "Comparative Perspectives in Modern Psychology," University of Nebraska, Lincoln, NE.

Savage-Rumbaugh, E. S. (1987, April). Contrasts in symbol acquisition between pygmy chimpanzees. Invited speaker, Biennial Meeting of the Society for Research in Child Development, Baltimore, MD.

Hopkins, W. D., Rumbaugh, D. M., Savage-Rumbaugh, E. S. and Washburn, D. A. (1987, June). Learning strategies in the acquisition of counting behavior in a chimpanzee. Presented at the annual meeting of the American Society of Primatologists, Madison, WI.

Sevcik, R. A., Romski, M. A., & Savage-Rumbaugh, E. S. (1987, November). Role of comprehension in symbol acquisition: Evidence from special populations. Mini-seminar presented for the Meeting of the American Speech-Language-Hearing Association, New Orleans, LA.

Presentations 1988

Savage-Rumbaugh, E. S. (1988, March). Where language studies of apes have come from, where they are now, and where they are going. Invited speaker, History and Philosophy of Science Series, Franklin and Marshall College, Lancaster, PA.

Rumbaugh, D. M., & Savage-Rumbaugh, E. S. (1988, April). Counting and protoarithmetic competencies of chimpanzees (Pan troglodytes). Paper presented at the Eightieth Annual Meeting of the Southern Society for Philosophy and Psychology, Miami, FL.

Savage-Rumbaugh, E. S. (1988, April). Some of our best friends are chimps. Invited speaker, DeKalb GSU Alumni Program, Atlanta, GA.

Savage-Rumbaugh, E. S. (1988, May). Language comprehension is key to referential language production in chimps and retarded children. Invited speaker, Animal Language and Communication Series, San Diego State University, San Diego, CA.

Savage-Rumbaugh, E. S., & Rumbaugh, D. M. (1988, June). Language skills of chimpanzees and bonobos. Invited speakers, National Institute of Child Health and Development Conference, Bethesda, MD.

Savage-Rumbaugh, E. S. (1988, August). Speech comprehension with semantic content by the bonobo. Paper presented at the Annual meeting of the American Psychological Association, Atlanta, GA.

Sevcik, R. A., Savage-Rumbaugh, E. S., Romski, M. A. (1988, August). Symbolic communication by apes and humans: A longitudinal comparative perspective. Poster session presented at the Annual meeting of the American Psychological Association, Atlanta, GA.

Savage-Rumbaugh, E. S. (1988, October). Invited Speaker, Psychological Sciences Program Seminar, Georgia State University, Atlanta, GA.

Savage-Rumbaugh, E. S. (1988, November). Methods of measuring language comprehension in apes. Invited Speaker, Emory program in cognition and development, Emory University, Atlanta, GA.

Savage-Rumbaugh, E. S. (1988, November). Why apes talk and what they have to say. Invited Speaker, Concordia University, Montreal, Canada.

Presentations, 1989

Savage-Rumbaugh, E. S. (1989, April). Language: Our erroneous but cherished preconceptions. Invited lecture at the Animal Language Workshop, University of Hawaii at Manoa.

Savage-Rumbaugh, E. S. (1989, February). Language learning: A capacity unique to

Homo sapiens? Invited lecture, Georgia State University Department of Anthropology, Atlanta, GA.

Savage-Rumbaugh, E. S. (1989, April). Invited seminar on Psychobiology of Animal Cognition, Columbia University, New York.

Savage-Rumbaugh, E. S., Brakke, K. E., Sevcik, R. A. (1989, June 10-11). Comparative language acquisition in apes. Poster presented at the First annual meeting of the American Psychological Society, Alexandria, VA.

Bolser Gilmore, L., Savage-Rumbaugh, S. (1989, June 15-17). Reproductive and delivery behavior of a bonobo (Pan paniscus). Poster and videotape presented at the Fertility in Great Apes Conference, Atlanta, GA.

Brakke, K., Savage-Rumbaugh, E. S. (1989, August 10-12). Speech Comprehension in Infant Bonobo (Pan paniscus) and Chimpanzee (Pan troglodytes). Paper presented at the fifth annual meeting of the Language Origins Society, University of Texas, Austin, TX.

Savage-Rumbaugh, E. S. (1989, September). Site visit committee member, National Institute of Child Health and Human Development.

Savage-Rumbaugh, E. S. (1989, October). Invited lecture, Oglethorpe University, Atlanta, Georgia.

Savage-Rumbaugh, E. S. and Rumbaugh, D. (1990, March 16-24). The invention of language. Invited paper presented at the Wenner-Gren Foundation for Anthropological Research, Cascais, Portugal.

Presentations, 1990

Brakke, K. E. & Savage-Rumbaugh, E. S. (1990, March 29-31). Comparative motor and manipulatory development: Behavior growth in infant human and apes. Poster presented at the 11th Biennial Conference on Human Development hosted within the Southeastern Region of the United States, Richmond VA.

Rumbaugh, D. M., Washburn, D. A., Savage-Rumbaugh, E. S. & Hopkins, W. D. (1990, March 29-April 1). The Language Research Center's Computerized Test System (LRC-CTS): Video-formatted tasks for primates. Paper presented at the Eighty-Second Annual Meeting of the Southern Society for Philosophy and Psychology.

Savage-Rumbaugh, E. S., (1990, April 17). Ape Minds: What are they in the Chimpanzee, Dialogue Series. Institute for Disabilities Studies, University of Minneapolis, Minneapolis, MN.

Savage-Rumbaugh, S., Romski, M.A., Rumbaugh, D. (1990, April 18-21). Comprehension versus Production: How is Language Learned? Invited paper

presented at the 23rd Annual Gatlinburg Conference on Research and Theory in Mental Retardation and Developmental Disabilities, Brainerd, MN.

Savage-Rumbaugh, E. S. (1990, May 16). Language learning: A capacity unique to Homo sapiens? Department of Anthropology, California State University, Sacramento CA.

Savage-Rumbaugh, E. S. (1990, June 8). Syntactical comprehension in the bonobo. Paper presented in symposium, Chimpanzees: Language, speech, comprehension, counting, and video tasks, Second annual convention of the American Psychological Society, Dallas, TX.

Savage-Rumbaugh, E. S. (1990, June 14). Apes and us: What happens when we begin to communicate with each other? Lecture to Yerkes Regional Primate Research Center Faculty and Staff.

Savage-Rumbaugh, E. S., & Rumbaugh, D. M. (1990, July 20). Language acquisition and use in the bonobo. Videotape presentation presented at the thirteenth Congress of the International Primatological Society, Nagoya, Japan.

Rumbaugh, D. M., Washburn, D. A., Savage-Rumbaugh, E. S., Hopkins, W. D. & Richardson, W. (1990, July 21). The Language Research Center's Computerized Test System (LRC-CTS): Video-formatted tasks for primates. Paper presented at the thirteenth Congress of the International Primatological Society, Nagoya, Japan.

Savage-Rumbaugh, E.S. (1990, July 22). Ape Language Research: Past, present and future, Guest speaker, Thirteenth Congress of the International Primatological Society, Satellite symposium at Kuruma-michi Campus, Aichi University, Nagoya, Japan.

Savage-Rumbaugh, E. S. (1990, July 23). Cognitive, linguistic, and postural developmental contrasts between female co-reared Pan troglodytes and Pan paniscus. Presented in symposium, "Behavior of our closest relatives, chimpanzees and bonobos", at the Thirteenth Congress of the International Primatological Society, Kyoto, Japan.

Savage-Rumbaugh, E. S. (1990, July 24). Implications of the cognitive and linguistic abilities of the bonobo for theories of the development of hominid culture. Presented in symposium, "Hominid Culture in primate perspective" at the thirteenth Congress of the International Primatological Society, Kyoto, Japan.

Presentations 1991

Rumbaugh, D. M., & Savage-Rumbaugh, E. S. (1991, April 11-14). Chimpanzees track normal child language. In T. Verhave (Chair), "Higher-order classes and language: Data from humans and nonhumans." Symposium conducted at the

Eastern Psychological Association, NY.

Sevcik, R. A., Savage-Rumbaugh, E. S., & Hirsh-Pasek, K. (1991, April). Overextensions in a pygmy chimpanzee are referential and not associative in nature. Paper presented at the Biennial Meeting of the Society for Research in Child Development, Seattle, WA.

Savage-Rumbaugh, E. S. (1991, May 1-4). Language and cognition innate. Invited presentation at the 24th Annual Gatlinburg Conference on Research and Theory in Mental Retardation and Developmental Disabilities, Key Biscayne, FL.

Presentations 1992

Williams, S. L., & Savage-Rumbaugh, E. S. (1992, April). English comprehension in Pan paniscus. Presented at the Eastern Psychological Association meeting, Boston, MA.

Williams, S. L., & Savage-Rumbaugh, E. S. (1992, August). Differential rearing and effects on acquisition of language and other cognitive abilities. Presented at the XIVth Congress of the International Primatological Society, Strasbourg, France.

Savage-Rumbaugh, E. S. (1992, August). Chimpanzee and humans -- The language link. G. Stanley Hall Lecturer at the American Psychological Association, Washington, DC.

Presentations 1993

Savage-Rumbaugh, S. (1993, February). What does my cousin think? Language capacity in the great apes. Invited presentation presented at the annual meeting of AAAS Meeting, Boston, MA.

Chung, J. C., Bowman, B. A., Savage-Rumbaugh, E. S., & Williams, S. (1993, March). Nutrient intakes of bonobos chimpanzees (Pan paniscus). Fed of American Society of Exp. Biology Journal: 7(3), A294. Poster presented in New Orleans, LA. (abstract).

Savage-Rumbaugh, S. (1993, March). The critical components of language acquisition in apes and humans. In S. Savage-Rumbaugh (Chair), "Language processes in apes and humans: Facilitation and assessment." Presented at the 26th Annual Gatlinburg Conference on Research and Theory in Mental Retardation and Development Disabilities, Gatlinburg, TN..

Savage-Rumbaugh, S. (1993, April). Working with apes who get it. Invited presentation at the Annual Series "Lectures on Mental Retardation and Human Development", Kennedy Center, Nashville, TN.

Savage-Rumbaugh, S. (1993, April). Language and animal mind. Film presented at The Mental Lives of Animals Conference sponsored by The Department of

Philosophy and The Language Research Center, Georgia State University, Atlanta, GA.

Rumbaugh, D. M., & Savage-Rumbaugh, S. (1993, May). Language skills of chimpanzees. Presented at the Annual Chimpanzoo Conference, Green Oakes Inn, Fort Worth, TX.

Presentations 1994

Savage-Rumbaugh, E. S., & Rumbaugh, D. M. (1994, March). Primate intelligence. Panel discussion, Biology Department Seminar Series, Morehouse College, Atlanta, Ga.

Savage-Rumbaugh, E. S. (1994, May). Concepts of competency. A presentation within Creating Culture Apes & Humans: A Forum for Discussion. Sponsored by Georgia State University and Emory University, Atlanta, GA

Savage-Rumbaugh, E. S. (1994, October). Lecturer at Kyoto University Primate Research Center, Inuyama, JAPAN.

Savage-Rumbaugh, E. S. (1994, October). Lecturer at Meiji-Gakuin University (Yokohama), Tokyo, JAPAN.

Savage-Rumbaugh, E. S., & Rumbaugh, D. M. (1994, October). The intelligence of animals. Invited presentation at the Nagoya Port Aquarium, Nagoya, JAPAN.

Savage-Rumbaugh, E. S., Williams, S., Furuichi, T., & Kano, T. (1994, November). Language realized: Symbolic communication of Pan paniscus. Invited paper at The Great Apes Revisited Conference, Wenner-Gren Foundation for Anthropological Research, Mexico.

Presentations 1995

Savage-Rumbaugh, E. S. (1995, March). The Eighth CSEOL Symposium. Invited presentation: Communication with Chimpanzees. UCLA Center for the Study of Evolution and the Origin of Life.

Savage-Rumbaugh, E. S. (1995, April). Guest Lecturer: Toward a Science of Consciousness conference. Hosted by University of Arizona, Tucson.

Presentations 1996

Savage-Rumbaugh, E. S. (April, 1996). Keynote Address Why have we assumed that animals do not have language? Conference on The Minds of Nonhuman Animals, University of Colorado at Boulder.

Beran, M. J., Rumbaugh, D. M., & Savage-Rumbaugh, E. S. (August, 1996). Performance of a chimpanzee (Pan troglodytes) on a computerized counting task. Poster Session at the XVIth Congress of the International Primatological Society,

University of Wisconsin, Madison, WI.

Savage-Rumbaugh, E. S. & Rumbaugh, D. M. (1996, August). Primate intelligence and language: Brain and Environment. Symposium at the XVIth Congress of the International Primatological Society and the XIXth Conference of the American Society of Primatologists, University of Wisconsin, Madison, WI.

Savage-Rumbaugh, E. S. (1996, October). Invited speaker at the XXXII Nobel Conference. Apes at the end of an age: Primate language and behavior in the 90's. Gustavus Adolphus College.

Presentations 1997

Savage-Rumbaugh, E. S. (1997, January). Invited speaker, Buckhead Rotary, Atlanta, GA.

Beran, M. J., Rumbaugh, D. M., & Savage-Rumbaugh, E. S. (1997, March). Paper presented at Southern Society for Philosophy and Psychology Annual Meeting. Evaluation of current language comprehension in three chimpanzees (Pan troglodytes): Effect of rearing on duration of language comprehension. Atlanta, GA.

Rice, D. R., Savage-Rumbaugh, E. S., & Rumbaugh, D. M. (1997, March). Session at Southern Society for Philosophy and Psychology Annual Meeting. A chimpanzee's ability to learn ordinality and counting. Atlanta, GA.

Savage-Rumbaugh, E. S. (1997, April). Lecturer, Seminar entitled Exploring the Primate Mind. Primate language: At the brink of the human mind. National Zoological Park, Washington, D.C.

Savage-Rumbaugh, E. S. (1997, May). Sigma Xi Public Talk. Apes, Language, Math, and Minds. University of New Mexico, Albuquerque, NM.

Savage-Rumbaugh, E. S. (1997, December). Discussant. Great Ape Concert. Canberra, Australia.

Savage-Rumbaugh, E. S. (1997, December). Keynote Speaker. Australian Primate Society Annual Meeting. Tasmania, Australia.

Savage-Rumbaugh, E. S. (1997, December). Invited Lecturer. University of New England, Armidale, Australia.

Presentations 1998

Savage-Rumbaugh, E. S. (1998, February). Invited symposium at American Association for the Advancement of Science Annual Meeting. Darwinian Perspectives on the origin of Language: Bonobo Communication. Philadelphia, PA.

Beran, M. J., Savage-Rumbaugh, E. S., & Brakke, K. E. (1998, April). Paper presented at the 2nd International Conference on the Evolution of Language. Language comprehension in three chimpanzees (Pan troglodytes): Effect of rearing on level of comprehension.

Savage-Rumbaugh, E. S. & Fields, W. M. (1998, June). Language and culture: A trans-generational interweaving. Invited speaker, Jan Wind Memorial Lecture, Language Origins Society, 14th Annual Meeting, Tallahassee, FL.

Savage-Rumbaugh, E. S. (1998, November). Behavior and mental abilities of primates. Invited speaker, Tufts University Center for Animals and Public Policy, Lecture series: "Animal Cognition and Communication", Natick, MA.

Presentations 1999

Savage-Rumbaugh, E. S. & Fields, W. M. (1999, January). The differential emergence of consciousness in infant bonobos as a function of pre- and post-natal environment. Invited speaker, "The Problem of Animal Consciousness: Historical, Theoretical, and Empirical Perspectives", sponsored by the Society of Integrative and Comparative Biology, Denver, CO.

Savage-Rumbaugh, E.S. & Fields, W.M. (1999). Probing the Realities of Ape Language. Invited speaker, "The Evolution of Apes and the Origins of Human Beings, " SAGA2/COE Joint International Symposium, Primate Research Institute, Kyoto University, Inuyama, Japan, November.

Savage-Rumbaugh, E. S. (1999, July) Bonobos: Music, Art, Tools, and Speech. Invited speaker, Spoletoscienza conference on "Views on the Mind", Spoleto, Italy.

Savage-Rumbaugh, E. S. (1999, September). Invited speaker, "Consciousness: Integrating Phenomenology and Cognitive Science", sponsored by the Fetzer Institute, Kalamazoo, MI

Presentations 2000

Savage-Rumbaugh, E. S., Rumbaugh, D. M. (2000, March) The apes and us: Language, culture, and other emergent processes. "Crossing Boundaries" Annual Conference of the American Association for Applied Linguistics, Vancouver, Canada.

Savage-Rumbaugh, E. S., Fields, W. M., Taglialatela, J. P. (2000, April). Language, Culture and Tools. Invited speakers, 3rd International Conference on "The Evolution of Language", Paris, France.

Savage-Rumbaugh, E. & Fields, W. (2000, July). "A Restatement of the Achievements of Ape Language with a Theory of Mind Update." The XXVII International Congress of Psychology, Stockholm, Sweden.

Savage-Rumbaugh, E. S. (2000, September). Why play? Invited speaker, "The Playful Mind" symposium, Lemelson Center for the Study of Invention and Innovation, Smithsonian National Museum of American History.

Presentations 2001

Menzel, C. R., Savage-Rumbaugh, E. S., Menzel, E. W. Jr. (2001, January). Primate Geometry. Paper presented at "Primates in the New Millennium", The XVIIIth Congress of the International Primatological Society, Adelaide, South Australia.

Savage-Rumbaugh, E. S. and Taglialatela, J. P. (2001, January). The mind of the bonobo: expectations, explications, and conversations. Paper presented at "Primates in the New Millennium", The XVIIIth Congress of the International Primatological Society, Adelaide, South Australia.

Renard, S. and Savage-Rumbaugh, E. S. (2001, July). Intonation and meanings in bonobo vocalizations. Paper presented at "Interfaces: Systemic Functional Grammar and Critical Discourse Analysis," The 28th International Systemic Functional Congress, Ottawa, Canada.

Savage-Rumbaugh, E. S., Spircu, T., & W. Fields (2001, August). Vocal speech in a nonhuman primate. Presented at the XXVII International Ethological Conference, Tubingen, Germany.

Presentations 2002

Savage-Rumbaugh, E. S. (2002, June). Apes, language and species – Where we've been and where we're going: A Tribute to the critic. Presented at "Zoosemiotics: From Clever Hans to Kanzi in Memory of Tom Sebeok (1920-2001)," Center for Semiotic and Cognitive Studies, Universita degli Studi, Republica di San Marino.

Savage-Rumbaugh, E.S. (2002, October). Symbols, syntax, paragraphs, and context. Where the subjective confronts the objective. Presented at Emory Cognition Workshop. Symbol Use and Symbolic Representation. Emory University, Decatur, Georgia.

Presentations 2003

Savage-Rumbaugh, E.S. & Fields, W. (2003, April). The Emergence of Tools Embedded in Culture: Beyond Anthropomorphism. The 39th Annual University of Cincinnati Philosophy Colloquium: Perspectives on the Animal Mind.

Fields, W. & Savage-Rumbaugh, S. (2003, May). Bonobo Beliefs and Desires. Seventh Congress of the Association of the Scientific Study of Consciousness. Memphis, Tennessee.

Spircu, T.& Savage-Rumbaugh, E.S. (2003, June). Analyzing bonobo vocalization by using computer; results and limitations. University of Bielefeld, Center for

Interdisciplinary research, Seminary on General Theory of Information Transfer and Combinatorics.

Savage-Rumbaugh, E.S. (2003, October). The Development of Forgiveness. Forgiveness Conference, Templeton Foundation, Atlanta, Georgia.

Presentations 2004 -- Bonobos Relocated to Great Ape Trust

Savage-Rumbaugh, S. (2004, February). Fifteen Minutes of Apes. The TED Conference, Monterey, California.

Presentations 2005

Savage-Rumbaugh, S. (2005, February). Our Closest Living Relatives, the Bonobos: What They Mean to Us and Why. Invited lecturer, "Speaking of Science" series at Buena Vista University, Storm Lake, Iowa.

Presentations 2006-2008

Records lost during move of bonobos from the Language Research Center to Great Ape Trust.

Presentations (2009)

Maternal care, self agency, moral agency, epigenetics and culture: Implications for the rise of language in *Homo symbolicus and Pan symbolicus.* Jan. 16-20, Capetown, South African, *Homo symbolicus:* The Dawn of Language, Imagination and Spirituality. A symposium presented by the John Templeton Foundation.

Language: The Carrier Wave of Culture, Tools and Intelligence, Science Circle, February 2009.

Intentionality in All its Guises, Invited Speaker, Evolutionary Studies Program at Binghamton University. March 20, 2009. Binghamton University

Why the Pan/Homo Culture made Kanzi speak: Culture theory as a supplement to genetic evolution. May, 2009. Berlin Behavioral Biology Symposium, Berlin.

How Culture Makes Bonobos Speak: The Rise of Language, Consciousness and Moral Agency in Bonobos (*Pan symbolicus*). Science Circle, Great Ape Trust, June 29.

Sigma Xi National Lecturer–1988-1990

1988 September; Western Maryland College, Westminster, MD.

1988 October; Southwest Missouri State University, Springfield, MO.

1989 February; University of South Florida, Tampa, FL.

1989 April; Columbia University, New York

1989 May; University of Cincinnati, Cincinnati, OH.

1989 May; Rush-Presbyterian-St. Lukes Medical Center, Chicago, IL.

1989 August; Vassar College, Poughkeepsie, NY

1989 October; Northwestern University, Evanston, IL.

1989 November; Hollins College, Roanoke, VA.

1989 December; Marshall University, Huntington, West VA.

1990 January; Eastern Kentucky University, Lexington, KY.

1990 January; Stockton College, Pomona, NJ.

1990 February; Hope College, Holland, MI.

1990 February; Georgia Tech University & Emory University, Atlanta, GA.

1990 February; University of South Dakota, Vermillion, SD and South Dakota State University, Brookings, SD.

1990 March; Cornell University, Geneva, NY.

RESEARCH GRANTS

Research Development Grant (1974), University of Oklahoma ($1,500).

National Institute of Child Health and Human Development HD06016 (1980-1985). Principal Investigator, Animal Model Project ($100,000).

National Institute of Child Health and Human Development HD06016 (1985-1999). Principal Investigator, Language Acquisition in Pan paniscus ($2,500,000). Co-investigator, Cognitive Project.

Biomedical Research Support Grant, Emory University (1987-1989). Co-investigator, "Hemispheric dominance for language and cognitive processes in the chimpanzee" ($20,000).

World Wildlife Fund, Grant # HW13, March 1, 1998 - February 28, 2000. Principal Investigator, Partial Support of the Congolese Conservation Initiative of the Bonobo Protection Fund ($15,000).

The Templeton Foundation, Grant (2001-2004) Program Project Coordinator. Studies in Forgiveness ($218,322).

The Milt Harris Foundation, Grant (2002-2003) Principal Investigator, "Non-Human Vocalization Study (Pan paniscus) ($50,000).

National Institute of Child Health and Human Development HD06016 (1999-2002) Program Project Coordinator, Studies of Language, Culture, and Tools ($1,530,689).

National Institute of Child Health and Human Development HD06016 (1999-2002) Principal Investigator, The Embedding of Language in Culture ($338,601).

REVIEW ACTIVITIES

1985-present: Board of Editors, Psychological Record

Referee: American Journal of Primatology, American Scientist, Brain and Behavioral Sciences, Journal of Comparative Psychology, National Institute of Health, National Geographic Journal, National Science Foundation, Psychological Record (Board of editors, 1985-pres.), Science, Yale University Press, Center for Field Research

Grant Reviews: National Institute of Health, National Geographic Society, National Science Foundation, Center for the Field Research

Exhibit: B. to Affidavit of Emily Sue Savage-Rumbaugh sworn to November 22, 2013
Reference List of Peer-Reviewed Literature (441-451)

EXHIBIT B

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Petitioner's Memorandum of Law dated December 2, 2013 in Support of Order to Show Cause & Writ of Habeas Corpus and Order Granting the Immediate Release of Kiko (452-542)

STATE OF NEW YORK
SUPREME COURT COUNTY OF NIAGARA

In the Matter of a Proceeding under Article 70 of the CPLR for a Writ of Habeas Corpus,

THE NONHUMAN RIGHTS PROJECT, INC., on behalf of KIKO,

Petitioners,

v.

CARMEN PRESTI, individually and as an officer and director of The Primate Sanctuary, Inc., CHRISTIE E. PRESTI, individually and as an officer and director of The Primate Sanctuary, Inc., and THE PRIMATE SANCTUARY, INC.,

Respondents.

ORIGINAL FILED

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WAYNE F. JAGOW
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Index No.:

CIVIL INDEX NUMBER

151725

12/03/2013 11:11:26 AM
Receipt 2013181518
Pages 1

Wayne F. Jagow, Niagara County Clerk

Clerk: SB

PETITIONERS' MEMORANDUM OF LAW IN SUPPORT OF ORDER TO SHOW CAUSE & WRIT OF HABEAS CORPUS AND ORDER GRANTING THE IMMEDIATE RELEASE OF KIKO

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December 2, 2013

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I. INTRODUCTION

Chimpanzees are autonomous, self-determined, self-aware, intelligent, and emotionally complex. Cognitively they resemble human beings. They recall their past and anticipate their future, and when their future is never-ending incarceration, they suffer the pain of being unable to fulfill their goals or move around as they wish.

In the last eight months, three of the seven of these extraordinary beings detained in the State of New York have died. The Nonhuman Rights Project, Inc. ("NhRP") is filing a common law writ of habeas corpus in each of the three counties in which a survivor remains. Each suit demands the prisoner's release and removal to a sanctuary designated by the North American Primate Sanctuary Alliance ("NAPSA"). There he will live the rest of his life with other chimpanzees and receive the specialized and comprehensive care necessary to satisfy his complex social and physical needs in a setting as close to his native Africa as can be had in North America.

The Petitioner in this case is a chimpanzee known as Kiko. New York has always recognized the common law writ of habeas corpus and there is no question this Court would release Kiko if he were a human being, for his detention grossly interferes with his exercise of bodily liberty. The question before this Court is not whether Kiko is a human being – he is not – but whether, like a human being, he is a "legal person" under the law of New York, possessed of the common law right to bodily liberty protected by the common law writ of habeas corpus.

"Legal person" has never been a synonym for "human being." It designates Western law's most fundamental category by identifying those entities capable of possessing a legal right. "Legal personhood" determines who counts, who lives, who

dies, who is enslaved, and who is free. A being, such as Kiko, who possesses autonomy, self-determination, self-awareness, and the ability to choose how to live his life, must be recognized as a common law "person" in New York, entitled to the common law right to bodily liberty protected by the common law writ of habeas corpus.

A dozen of the world's most prominent working primatologists have submitted affidavits in support of the NhRP's claim that Kiko possesses the autonomy, self-determination, self-awareness, and ability to choose how he lives the emotionally rich and intellectually complex life of which he is capable, sufficient for common law "personhood." Because he is being deprived of his ability to exercise his autonomy, Kiko is entitled to invoke the common law writ of habeas corpus, and be discharged to that sanctuary chosen by NAPSA for which he is best suited.

The New York legislature has already designated Kiko a "legal person," as he is a beneficiary of a trust created by the NhRP pursuant to § 7-8.1 of the Estates, Powers and Trusts Law ("EPTL"). Kiko possesses the statutory right to own the trust corpus and have it used solely for his benefit. The NhRP now demands that this Court recognize Kiko's additional common law right to the bodily liberty protected by the common law writ of habeas corpus.

In addition to Kiko's status as a legal person as a trust beneficiary, this Court must recognize that Kiko is a common law person entitled to the common law right to bodily liberty protected by the common law writ of habeas corpus, as a matter of common law liberty, pursuant to a New York common law that keeps abreast of evolving standards of justice, morality, experience, and scientific discovery.

The New York common law of liberty begins, as does the common law of every American state, with the premise that the autonomy, self-determination, self-awareness, and freedom of choice that Kiko, as well as human beings, possesses is protected as a fundamental common law right, and vindicated through a common law writ of habeas corpus.

In addition, this Court must recognize that Kiko is entitled to a writ of habeas corpus, as a matter of common law equality. New York common law equality forbids discrimination founded upon unreasonable means or unjust ends, and protects Kiko's common law right to bodily liberty free from unjust private discrimination. Kiko's common law classification as a "legal thing," rather than a "legal person," rests upon the illegitimate end of enslaving him. Simultaneously, it classifies Kiko by his single trait of being a chimpanzee and then denies him every legal right, even the capacity to have a legal right. This discrimination is so fundamentally inequitable it violates basic common law equality.

Kiko is classified as a legal thing for the sole, illegitimate, and odious purpose of enslaving him. But New York courts have openly loathed slavery for over one hundred and fifty years. Placed alongside the mountain of scientific evidence the NhRP attaches to its Petition for a Writ of Habeas Corpus (the "Habeas Petition") establishing that Kiko is an autonomous, self-determined, self-aware being, with the ability to choose, his anachronistic classification as a legal thing is revealed as irrational, immoral, biased, unjust, illegitimate, and dangerous.

Kiko is therefore entitled to be recognized as a legal person, either because the legislature has already granted him personhood as a beneficiary under EPTL §7-8.1, or

because he is entitled to common law personhood, or both. The autonomy, self-determination, self-awareness, and ability to choose that entitles him to common law personhood equally entitles him to the right to bodily liberty protected by the New York common law writ of habeas corpus. This Court should therefore issue a common law writ of habeas corpus forthwith, and discharge Kiko to NAPSA, which will evaluate him and place him in its most appropriate member sanctuary.

In the following Statement of Facts, the NhRP will begin by setting out facts that demonstrate that Kiko's genetics and physiology have produced a brain that allows him the capacities of autonomy, self-determination, self-awareness, and the ability to choose how to live his life, as well as the generally cognitive and emotional complexity sufficient for common law personhood and the possession of the common law right to bodily liberty protected by the common law writ of habeas corpus. The Statement of Facts then sets out the facts that demonstrate that Kiko actually possesses these cognitive abilities.

II. STATEMENT OF FACTS

The affidavits submitted in support of this Petition, summarized below, demonstrate that chimpanzees possess those complex cognitive abilities sufficient for common law personhood and the common law right to bodily liberty, as a matter of liberty, equality, or both. Their most significant cognitive ability is "autonomy," which subsumes many of their other cognitive abilities. These include, but are not limited to, their possession of an autobiographical self, episodic memory, self-determination, self-consciousness, self-knowingness, self-agency, referential and intentional communication, empathy, a working memory, language, metacognition, numerosity, and material, social,

and symbolic culture, their ability to plan, engage in mental time-travel, intentional action, sequential learning, mediational learning, mental state modeling, visual perspective-taking, cross-modal perception, their ability to understand cause-and-effect, the experiences of others, to imagine, imitate, engage in deferred imitation, emulate, to innovate and to use and make tools.

Humans and chimpanzees share almost 99% of their DNA (Affidavit of Tetsuro Matsuzawa ("Matsuzawa Aff."), at ¶10; Affidavit of Emily Sue Savage-Rumbaugh ("Savage-Rumbaugh Aff."), at ¶11). Chimpanzees are closely related to human beings, more closely than they are to gorillas (Affidavit of William McGrew ("McGrew Aff."), ¶11; Affidavit of James King ("King Aff.), at ¶12; Affidavit of Mathias Osvath ("Osvath Aff."), at ¶11). They resemble human beings physiologically and anatomically (McGrew Aff. at ¶12). No other species comes so close to humans in self-awareness and language abilities, and in diversity of behaviors such as tool-use, gestural communication, social learning, and reactions to death (Affidavit of James Anderson ("Anderson Aff."), at ¶11). Even our blood is interchangeable; transfusions can go in both directions so long as the blood groups are properly matched (McGrew Aff. ¶12).

More importantly, human and chimpanzee brains are similar (Matsuzawa Aff. at ¶10). The volume of a chimpanzee brain is comparable to that of the most recent extinct member of the human evolutionary lineage, *Homo floresiensis*, which lived as recently as 18,000 years ago (McGrew Aff. at ¶13). Both modern humans and chimpanzees have larger brains than expected for their body size (Matsuzawa Aff. at ¶10). This means they both evolved to possess above-average mental abilities compared with other species of the same body size (Matsuzawa Aff. at ¶10).

Both chimpanzee and human brains and behavior are highly plastic, flexible, and nearly completely dependent upon learning (Savage-Rumbaugh Aff. at ¶11a). Humans and chimpanzees share similar brain circuits involved in language and communication (Matsuzawa Aff. at ¶10). Both evolved the large frontal lobes of the brain that are intimately involved in the capacities for insight and foreplanning (Matsuzawa Aff. at ¶10). Indeed, many shared brain characteristics are relevant to such capacities as self-awareness, autonomy, and general intelligence (Matsuzawa Aff. at ¶10). Broca's Area and Wernicke's Area are brain regions that enable symbolic communication. The areas that correspond to Broca's Area and Wernicke's Area in chimpanzees correspond to those parts of the human brain that enable symbolic communication (Savage-Rumbaugh Aff. at ¶13).

A hallmark of sophisticated communication and language-like capacities is brain asymmetry (Matsuzawa Aff. at ¶12). Chimpanzees possess a similar asymmetry to humans (Matsuzawa Aff. at ¶12). The left and right parts of the human brain have different shapes that are related to language capacities and correlate with handedness (Matsuzawa Aff. at ¶12). Both chimpanzees and humans possess "population-level right-handedness," in that they are right-handed and process language in the left hemisphere (Matsuzawa Aff. at ¶12). These overall findings point to a key similarity in the way chimpanzee and human brains are structured, particularly in ways relevant to language and communication (Matsuzawa Aff. at ¶12).

Both humans and chimpanzees share highly specific cell types involved in higher-order thinking, as well as important functional characteristics related to sense of self (Matsuzawa Aff. at ¶10; Affidavit of Jennifer M.B. Fugate ("Fugate Aff."), at ¶14). Both

brains possess a specialized type of cell – known as a spindle cell (or von Economo neuron) – in the same area of the brain (Matsuzawa Aff. at ¶14). This area, known as the anterior cingulate cortex, is involved in emotional learning, the processing of complex social information, decision-making, awareness, and, in humans, speech initiation (Matsuzawa Aff. at ¶14). The presence of spindle cells in both chimpanzees and humans strongly suggest they share many of these higher-order brain functions (Matsuzawa Aff. at ¶14). The chimpanzee brain is also activated in the same areas and networks as the human brain during activities associated with planning and episodic memory, that is, memories for autobiographical events and foresights for personal situations (Osvath Aff. at ¶12, ¶¶15-16).

Since Darwin, biologists have emphasized the slow, gradual changes inherent in evolutionary development (King Aff. at ¶12). The close evolutionary relationship between chimpanzees and humans is evident in terms of physical structure, behaviour and mental processes (King Aff. at ¶12). The presence of any complex cognitive-behavioral process in humans therefore implies the likelihood of a similar, perhaps more rudimentary, process in chimpanzees (King Aff. at ¶12).

Human and chimpanzee brains develop and mature in similar ways, which indicates they pass through similar cognitive developmental stages (Matsuzawa Aff. at ¶10). For example, the development in chimpanzees of their use and understanding of sign language, along with their natural communicative gestures and vocalizations, parallels the development of language in children; this points to deep similarities in the cognitive processes that underlie communication in chimpanzees and humans (Jensvold Aff. at ¶9). The development of both chimpanzees and humans also involve increasing

levels of consciousness, awareness, and self-understanding throughout adulthood, through culture and learning (Savage-Rumbaugh Aff. at ¶11d).

Numerous parallels in the way chimpanzee and human communication skills develop also suggest a similar unfolding of cognitive processes and an underlying neurobiological continuity (Jensvold Aff. at ¶10). Although children develop a natural syntactic language, chimpanzees show some of the same early developmental tendencies and changes in their communication skills as young children (Jensvold Aff. at ¶10). For instance, both children (who eventually learn a spoken and written language) and language-trained chimpanzees (who learn a symbol-based vocabulary) begin communicating using natural gestures before moving on to more frequent use of symbols (Jensvold Aff. at ¶10). In both, the ratio of symbol to gestures increases with age, and in both the overwhelming majority of gestures serve a communicative purpose (Jensvold Aff. at ¶10). Both humans and chimpanzees also show a primacy of natural gestures in development over learning a symbolic system of communication (Jensvold Aff. at ¶¶9-10). While humans develop a complex symbolic, syntactic language, the foundational stages of communication suggest striking similarities between human and chimpanzee cognition (Jensvold Aff. at ¶¶10-11).

Developmental delay (a long protracted period of brain development over many years) is a key feature of both chimpanzee and human prefrontal cortex brain evolution and plays a role in the emergence of complex cognitive abilities, such as self-awareness, creativity, foreplanning, working memory, decision making and social interaction (Matsuzawa Aff. at ¶11). Delayed development of the brain, and specifically the prefrontal cortex, provides a longer period in which this part of the brain may be shaped

by experience and learning (Matsuzawa Aff. at ¶11; Savage-Rumbaugh Aff. at ¶11a, ¶12).

Consistent with these similar functions in humans and chimpanzees, chimpanzee infants share mental features and patterns with human infants (Matsuzawa Aff. at ¶11). These include the ways in which mothers and infants interact and use social smiling and looking into each other's eyes as ways of strengthening their bond, as well as how and when they begin to manipulate objects, which is related to their shared capacity for tool-making and use (Matsuzawa Aff. at ¶11).

The evidence that chimpanzees and humans share the capacity for "autonomy" is strong (King Aff. at ¶¶11; Osvath Aff. at ¶11). Autonomous behavior demonstrates that a choice was made; it is not based on reflexes, innate behaviors, or any conventional categories of learning such as conditioning, discrimination learning, or concept formation (King Aff. at ¶¶3-4). It implies an individual is directing her behavior based on an internal cognitive process (King Aff. at ¶11). Chimpanzee autonomy is consistent with phylogenetic parsimony in that the simplest explanation for chimpanzee behaviors that look autonomous is that they are based on similar human psychological capacities (King Aff. at ¶12).

The concept of "self" is an integral part of autonomy, being able to have goals and desires, intentionally act towards those goals, and understand whether they are satisfied (Matsuzawa Aff. at ¶15). There is abundant and robust evidence that chimpanzee possess this sense of self (Matsuzawa Aff. at ¶15). For example, chimpanzees respond differently to their own name rather than to other sounds and show specific brain wave responses to

the sound of their own name; this response signifies self in chimpanzees, as for humans (Matsuzawa Aff. at ¶13).

More importantly, chimpanzees reliably recognize themselves in mirrors (Matsuzawa Aff. at ¶15), an ability widely accepted as a marker of self-awareness (Anderson Aff. at ¶12; Savage-Rumbaugh Aff. at ¶16). They also recognize themselves on television, in videos, and photographs, and they use a flashlight to examine the interior of their own mouths (Savage-Rumbaugh Aff. at ¶16). Chimpanzee adults recognize pictures of themselves, and others, when they were very young (Savage-Rumbaugh Aff. at ¶16).

To recognize oneself one must be able to hold a mental representation of what one looks like from another visual perspective (Anderson Aff. at ¶12). This capacity to "step-outside" the self and reflect upon one's behavior, as one might reflect on the behavior of another, allows one to become the objects of one's own thought (Savage-Rumbaugh Aff. at ¶16). The developmental emergence of self-recognition in chimpanzees is similar to that in humans (Anderson Aff. at ¶12). As in humans, the capacity for self-recognition in adult chimpanzees is highly stable across time, with some decline in old age (Anderson Aff. at ¶12).

Chimpanzees show many related capacities that stem from self-awareness, such as self-monitoring, self-reflection, and metacognition (Matsuzawa Aff. at ¶15). Metacognition is the ability to think about, and reflect upon, one's own thoughts and memories (Matsuzawa Aff. at ¶15). For instance, when given a task in which the identity of a food item is a critical piece of information needed to obtain a reward, chimpanzees, like humans, first check a container they are unfamiliar with before making their choice

(Matsuzawa Aff. at ¶15). This efficient information-seeking behavior strongly suggests they are aware of what they know and do not know (Matsuzawa Aff. at ¶15). Like children, chimpanzees know when they have enough visual information to complete a task and also know that they could be wrong about the information they have and, like human children, will check if they are uncertain (Matsuzawa Aff. at ¶15).

"Self-agency" is the ability to distinguish actions and effects caused by oneself from events occurring in the external environment; it is a fundamental component of autonomy (Matsuzawa Aff. at ¶16). For instance, chimpanzees distinguish between movement of an object, such as a computer cursor, controlled by themselves, and motion caused by someone else (Matsuzawa Aff. at ¶16). These, and many similar findings, demonstrate that chimpanzees and humans share the fundamental cognitive processes underlying the sense of being an independent agent (Matsuzawa Aff. at ¶16; Savage-Rumbaugh Aff. at ¶11e).

When humans recollect a specific event or plan for a new situation, they experience these events mentally, using their "inner eyes and ears" (Osvath Aff. at ¶12). Both share the sophisticated cognitive capacity necessary for a "mental time travel" that is enabled by an episodic system that chimpanzees and humans share (Osvath Aff. at ¶10, ¶12, ¶15; Jensvold Aff. at ¶10).

Chimpanzees have a self-concept, are aware of their personal past, and see a personal future ahead of them (Osvath Aff. at ¶16). So-called "autonoetic consciousness," or "self-knowing consciousness," is a necessary correlate of the episodic system (Osvath Aff. at ¶12). Without understanding that one is an individual who exists through time, one cannot recollect past events in one's life and plan future events (Osvath Aff. at ¶12).

Autonoetic consciousness allows the autobiographical sense of a self with a past and future (Osvath Aff. at ¶12).

Chimpanzees possess an autobiographical self (Osvath Aff. at ¶12). The similar brain structures of humans and chimpanzees support the behavioral and cognitive evidence for both human and chimpanzee autobiographical selves (Osvath Aff. at ¶15). Chimpanzees demonstrate a capacity for episodic memory (Osvath Aff. at ¶12). Chimpanzees can delay a strong current drive for a better future reward, generalize a novel tool for future use, select objects for a much-delayed future task, and do all of this while keeping in mind several different elements of a situation (Osvath Aff. at ¶14). They remember highly specific contextual elements, the "what, where and when" of events, hours, weeks, even years later (Osvath Aff. at ¶12). They can prepare themselves for future actions, such as future tool use, a day in advance (Osvath Aff. at ¶12). Wild chimpanzees have demonstrated such long-term planning for tool use as transporting stones to different locations to be used later as hammers with which to crack nuts, while a captive chimpanzee calmly and routinely collected, stockpiled, and concealed stones that he would hurl at visitors later, when he was in an agitated state (Osvath Aff. at ¶13; Anderson Aff. at ¶16). The ability to plan for events where one is in a different psychological state from the current situation strongly signals the presence of an episodic system (Osvath Aff. at ¶13). This showed that chimpanzees are not only able to prepare for an upcoming event, but able mentally to construct a new situation to alter the future (in this case the behaviors of human zoo visitors) (Osvath Aff. at ¶13).

Part of being an autonomous individual is having self-control (Osvath Aff. at ¶14). Chimpanzees, like humans, can delay gratification for a future reward; they possess

a high level of self-control under many circumstances (Osvath Aff. at ¶14). Chimpanzees plan for future exchanges with humans (Osvath Aff. at ¶14). They may use self-distraction (playing with toys) to cope with the impulse of grabbing immediate candies instead of waiting for more (Osvath Aff. at ¶14).

Self-control depends upon the episodic system (Osvath Aff. at ¶14). The perceptual simulations made possible by episodic memory function as a motivational "brake" on current drives in favor of delayed rewards (Osvath Aff. at ¶14). The sensory simulation evokes a motivation related to the simulated episode (Osvath Aff. at ¶14). This motivation competes with whatever other motivations existed prior to the simulation (Osvath Aff. at ¶14). This brings the future into the present. For example, a choice between immediate and delayed satisfaction becomes a choice between two current motivations. It is a trick of the brain allowing for delay of gratification only available to humans and nonhumans with a sufficiently sophisticated sense of self and autobiographical memory (Osvath Aff. at ¶14). Thus, chimpanzees can disregard a small piece of food in favor of a tool that will allow them to obtain a larger piece of food in the future (Osvath Aff. at ¶14). And they can select a tool they have never seen, guess its function, and use it appropriately in the future (Osvath Aff. at ¶14). This ability to perceive the function of a novel tool in the future would be impossible without being able to mentally represent the details of the future event (Osvath Aff. at ¶14).

This all means that chimpanzees re-experience past pains and pleasures as well as anticipate them (Osvath Aff. at ¶16). This in turn implies that, like humans, they can experience pain about an anticipated future event (Osvath Aff. at ¶16). Confining someone in a prison or cage for a set time, or for life, loses much of its power as

punishment if the individual had no self-concept (Osvath Aff. at ¶16). Every moment will be a new moment with no conscious relation to the next (Osvath Aff. at ¶16). As chimpanzees have a concept of their personal past and future and therefore suffer the pain of not being able to fulfill their goals or move around as they wish, like humans they experience the pain of anticipating a never-ending situation (Osvath Aff. at ¶16).

Language, a volitional process that involves creating intentional sounds for the purpose of communication, also reflects autonomous thinking and behavior (Matsuzawa Aff. at ¶13). Certain sounds are selectively produced by chimpanzees to capture the attention of an inattentive audience (Matsuzawa Aff. at ¶13). These sounds are produced almost exclusively in the presence of an audience and are therefore under volitional control, as they serve the purpose of informing others about the presence of various items, such as food or a play object or tool (Matsuzawa Aff. at ¶13).

Chimpanzees' development of their use and understanding of sign language, along with their natural communicative gestures and vocalizations, parallels the development of language in children, which points to deep similarities in the cognitive processes that underlie communication in chimpanzees and humans (Jensvold Aff. at ¶9).

Chimpanzees exhibit referential and intentional communication (Anderson Aff. at ¶15). They point and vocalize when they want humans and other chimpanzees to notice something and adjust their gesturing to insure they are noticed (Anderson Aff. at ¶15). In tasks requiring cooperation, chimpanzees recruit partners they know to be the most skilled and take turns as appropriate when requesting and giving help to a partner (Anderson Aff. at ¶15). Chimpanzees communicate intentionally and purposefully when they want to inform naïve chimpanzees about something, such as a predator (Anderson

Aff. at ¶15). Wild chimpanzees presented with a model of a python direct alarm calls to friends just arriving on the scene, who could not see the snake, and stopped calling once the others were far enough to be safe from the predator (Anderson Aff. at ¶15).

Chimpanzees demonstrate purposeful communication, conversation, understanding of symbols, perspective-taking, imagination, and humor (Jensvold Aff. at ¶9; Savage-Rumbaugh Aff. at ¶¶14-15). They learn symbols for hundreds of items, events and locations, and remember them for decades; they learn new symbols without being taught, by observing others using them (other apes or humans) (Savage-Rumbaugh Aff. at ¶20). They can master syntax (Savage-Rumbaugh Aff. at ¶20). They understand conditional "if/then" clauses, such as, "if you share your cereal with Sherman, you can have some more" (Savage-Rumbaugh Aff. at ¶21). They announce important social events, what that they are about to do, where they are going, what assistance they want from others, and how they feel (Savage-Rumbaugh Aff. at ¶25). They announce what they are going to retrieve from an array of objects that they've seen in another room (Savage-Rumbaugh Aff. at ¶25). They announce that they have seen important social events such as when they have seen another chimpanzee that has been anesthetized rolled by on a cart (this is extremely upsetting to them), or when they see that a gorilla has attacked another chimpanzee on television (Savage-Rumbaugh Aff. at ¶25). They recount what happened yesterday to an unknowing listener (Savage-Rumbaugh Aff. at ¶27).

Chimpanzees understand there is no one-to-one relationship between utterances and events, that there are infinite linguistic ways of communicating the same or similar things (Savage-Rumbaugh Aff. at ¶22). They use their symbols to comment about other individuals as well as about past and future events (Jensvold Aff. at ¶10). Both child and

chimp purposefully create declarative sentences (Jensvold Aff. at ¶10). Both combine gestures with pointing to refer to objects (Jensvold Aff. at ¶10).

In short, there is no essential difference between what words chimpanzees learn mean to them, and what words humans learn mean to them (Savage-Rumbaugh Aff. at ¶20).

Language-trained chimpanzees spontaneously use their language to communicate with each other (Jensvold Aff. at ¶12; Savage-Rumbaugh Aff. at ¶15). Those who comprehend spoken English communicate complex things through their response to "yes/no" answers (Savage-Rumbaugh Aff. at ¶15). They can answer "yes/no" questions about their thoughts, plans, feelings, intentions, dislikes and likes if they trust the researcher and believe that this knowledge will not be employed against them (Savage-Rumbaugh Aff. at ¶15). They can answer questions about the likes and dislikes of their companions and will tell researchers what other apes, who cannot comprehend English, want and/or think (Savage-Rumbaugh Aff. at ¶15). They use their symbols to express themselves, and to state what they are going to do, in advance of acting, then carry out their stated action (Savage-Rumbaugh Aff. at ¶17). An example is statements made by two language-trained chimpanzees trained with abstract computer symbols, Sherman and Austin, who told each other the foods they intended to share, and told experimenters which items they were going to give to them (Savage-Rumbaugh Aff. at ¶17). With the emergence of the ability to state their intentions, Sherman and Austin revealed that not only did they recognize and understand differential knowledge states between themselves, but that language allows separate beings to bring their different knowledge states into accord with their own imminent intentions and thus to coordinate their actions

(Savage-Rumbaugh Aff. at ¶18). Coordinated actions can take place between two minds when both have come to an agreement prior to action (Savage-Rumbaugh Aff. at ¶19).

Sherman and Austin would say "Go outdoors," then head for the door, or "Apple refrigerator," then take an apple from the refrigerator (rather than any of the other foods that were located in the refrigerator). These were not requests, but statements of intent (Savage-Rumbaugh Aff. at ¶18). In order to produce statements about intended action, for the purpose of co-coordinating future actions with others, one must be able to form a thought and hold it in mind until agreement is reached between two parties (Savage-Rumbaugh Aff. at ¶20).

Loulis, a male chimpanzee, was not raised with humans and was not taught ASL by humans (Jensvold Aff. at ¶12). Nor did humans use ASL in his presence (Jensvold Aff. at ¶12). But he was the adopted son of another signing chimpanzee, Washoe, and Loulis acquired his signs from observing Washoe and other signing chimpanzees, as well as when Washoe molded his hands into the appropriate signs (Jensvold Aff. at ¶12). Not only did Washoe's behavior toward her adopted son show she was aware of his shortcomings in the use of signs as a communication skill, but she took steps to change that situation (Jensvold Aff. at ¶12).

True purposeful communication is based on conversational interaction in which each of the participants takes turns communicating in a give and take manner and participants respond appropriately to the communicative actions of each other (Jensvold Aff. at ¶11). When a conversation becomes confusing, participants make contingent adjustments, such as offering a revised or alternative utterance/gesture or repeating a gesture or sign in order to continue the conversation (Jensvold Aff. at ¶11). ASL-using

chimpanzees demonstrate contingent communication with humans at the same level as young human children (Jensvold Aff. at ¶11).

When humans feel a conversation has broken down, they repeat their utterance and add information (Jensvold Aff. at ¶11). Chimpanzees conversing in sign language with humans respond in the same way, reiterating, adjusting, and shifting their signs to create conversationally appropriate rejoinders; their reactions to and interactions with a conversational partner resemble patterns of conversation found in studies of human children (Jensvold Aff. at ¶11). When their request is satisfied, they cease signing it (Jensvold Aff. at ¶11). When their request is misunderstood, refused or not acknowledged, they repeat and revise their signing until they get a satisfactory response (Jensvold Aff. at ¶11). As in humans, this pattern of contingency in conversation is a key demonstration of volitional and purposeful communication and thought (Jensvold Aff. at ¶11).

Chimpanzees understand that conversation involves turn-taking and mutual attention and will intentionally try to alter the attentional state of the human (Jensvold Aff. at ¶11). If they wish to communicate with a human whose back is turned to them they will make attention-getting sounds, such as using only signs with a noisy sound component, such as smacking the hand (Jensvold Aff. at ¶11). If the human is turned to them, they then switch to conversational sign language with few sounds (Jensvold Aff. at ¶11).

Both language-using and wild chimpanzees understand conversational give-and-take and adjust their communication to the attentional state of the individual with whom they want to communicate (Jensvold Aff. at ¶11). Even wild and captive chimpanzees

untutored in American Sign Language string together multiple gestures to create gesture sequences (Jensvold Aff. at ¶11). They may combine gestures into long series, within which gestures may overlap, be interspersed with bouts of response waiting or be exchanged back and forth between individuals (Jensvold Aff. at ¶11). Both ASL-trained and wild chimpanzees adjust their gestures and gestural sequences to the attention state of the individual they are trying to communicate with, using visual gestures towards an attentive partner and tactile and auditory gestures more often toward inattentive partners. If the partner does not respond, they repeat the gesture (Jensvold Aff. at ¶11).

When Sherman and Austin communicated with each other, a variety of spontaneous communicative gestures arose that indicated they were paying close attention to the visual regard of the other (Savage-Rumbaugh Aff. at ¶22). For example, if Austin were looking away when Sherman selected a symbol, Sherman would wait until Austin looked back. He would then point to the symbol he had used. If Austin still hesitated, Sherman would point to the food that the symbol symbolized. If Austin's attention wandered further, Sherman would turn Austin's head toward the keyboard. If Sherman was not attending to Austin's request, Austin would gaze at the symbol until Sherman took note (Savage-Rumbaugh Aff. at ¶22). Both recognized that the speaker had to monitor the listener, watch what he was doing, make judgments about his state of comprehension and decide how to proceed with conversational repair (Savage-Rumbaugh Aff. at ¶22).

In a manner similar to children from ages two through seven, sign-language trained chimpanzees sign amongst themselves, as do chimpanzees trained to use arbitrary computer symbols to communicate, and exhibit a telltale sign of volitional use of

language, that is, private signing or signing to themselves, also known as "private speech" (Jensvold Aff. at ¶12; Savage-Rumbaugh Aff. at ¶14). Private speech has many functions, including self-guidance, self-regulation of behavior, planning, pacing, and monitoring skill, and is a part of normal development of communication (Jensvold Aff. at ¶13). It helps children control and regulate their emotions and thoughts by focusing them on their own concerns and providing a buffer from external distractions (Jensvold Aff. at ¶13).

Children use private speech during creative and imaginative play, often talking to themselves when playing imaginative and pretend games (Jensvold Aff. at ¶14). The more frequently children engage in private speech, the more creative, flexible, and original thought they display (Jensvold Aff. at ¶14).

Imagination is a key component of mental representation, metacognition, and the ability to mentally create other realities (Jensvold Aff. at ¶15). Both captive and wild chimpanzees engage in at least six forms of imaginary play that are similar to the imaginary play of children ages two through six (Jensvold Aff. at ¶15). These include Animation, Substitution, and imaginary private signing (Jensvold Aff. at ¶15). Animation is pretending that an inanimate object is alive, such as talking to a teddy bear, while substitution is pretending an object has a new identity, such as placing a block on the head as a hat (Jensvold Aff. at ¶15). In imaginary private signing, chimpanzees create word-play, or transform a sign or its referent to a different meaning, whether it is present or not (Jensvold Aff. at ¶14). An example is placing a wooden block on one's head and referring to it, in sign, as a "hat" (Jensvold Aff. at ¶14).

Chimpanzees use their imagination to engage in pretend-aggression (Savage-Rumbaugh Aff. at ¶31). Sherman pretended that a King Kong doll was biting his fingers and toes and would startle his caretakers by pretending to be in pain, as he poked a needle in his skin and out the other side, being careful to just pierce the thick outer layer of skin (Savage-Rumbaugh Aff. at ¶31).

Deception and imaginary play require behaviors directed toward something that is not there and often involve modeling mental states (Jensvold Aff. at ¶16). They are closely related and by age three chimpanzees engage in both (Jensvold Aff. at ¶15; Savage-Rumbaugh Aff. at ¶16). For example, a chimpanzee who cached stones to later throw at zoo visitors engaged in deception by constructing hiding places for his stone caches, then inhibiting those aggressive displays that signal upcoming throws (Osvath Aff. at ¶13).

Chimpanzees also have a sense of humor, and are known to laugh under many of the same circumstances humans laugh (Jensvold Aff. at ¶17). Together these findings provide further evidence for cognitive similarities between humans and chimpanzees in the domains of mental representation, intentionality, imagination, and mental state modeling – all fundamental components of autonomy (Jensvold Aff. at ¶17).

Chimpanzees are highly attuned to the experiences, visual perspectives, knowledge states, emotional expressions and states of others (Anderson Aff. at ¶15; Fugate Aff. at ¶16; Matsuzawa Aff. at ¶¶17, 18). They possess "mirror neurons," which allow for the ability to share and relate to another's emotional state (Fugate Aff. at ¶14). These specialized cells respond to actions performed by oneself, but also when one watches the same action performed by another, which forms the basis for empathy, the

ability to put oneself in another's situation (Fugate Aff. at ¶14; Matsuzawa Aff. at ¶17). They have some "theory of mind;" they know they have minds, they know humans have minds, thoughts, intentions, feelings, needs, desires, and intentions and they know that their minds and state of knowledge differ from what their minds know (Savage-Rumbaugh Aff. at ¶32). They know when another chimpanzee does not know something and inform the other about facts he does not know (Savage-Rumbaugh Aff. at ¶32).

For instance, chimpanzees cannot only imitate the actions of others but anticipate the intentions of others when watching a human or another chimpanzee try to complete a task (Matsuzawa Aff. at ¶17). Chimpanzees know what others can and cannot see (Matsuzawa Aff. at ¶17). Chimpanzees know when another's behavior is accidental or intentional (Matsuzawa Aff. at ¶17). And chimpanzees use their knowledge of others' perceptions tactically to deceive another chimpanzee and obtain hidden food (Matsuzawa Aff. at ¶17). In situations where two chimpanzees are in competition for hidden food they show a number of strategies and counter-strategies to throw each other "off the trail" and obtain the food for themselves (Matsuzawa Aff. at ¶17). This kind of complexity in understanding others' minds is key evidence of being aware of one's own mind and that of others, as chimpanzees clearly are (Matsuzawa Aff. at ¶17).

When placed in a situation where they need to compete for food placed at various locations around visual barriers, subordinate chimpanzees will only approach food that they infer dominant chimpanzees cannot see (Anderson Aff. at ¶15). They take the visual perspective of the chimpanzee competitor, and understand that what they themselves see is not the same thing as what their competitor sees (Anderson Aff. at ¶15). When ASL-trained and wild chimpanzees adjust their gestures and gestural sequences to the attention

state of the individual they are trying to communicate with, using visual gestures towards an attentive partner and tactile and auditory gestures more often toward inattentive partners. If the partner does not respond, they repeat the gesture, demonstrating visual perspective-taking and mental state modeling (Jensvold Aff. at ¶11).

The capacity for self-recognition has been linked to empathic abilities (Anderson Aff. at ¶13). "Empathy" is defined as identifying with and understanding another's situation, feelings and motives and several lines of evidence indicate that chimpanzees are capable of highly developed empathic abilities (Anderson Aff. at ¶13). Contagious yawning in chimpanzees demonstrates they possess very complex levels of self-awareness and empathic abilities (Matsuzawa Aff. at ¶18; Fugate Aff. at ¶14, ¶16).

When tested in similar experimental situations using video stimuli, chimpanzees show contagious yawning in much the same way as humans do (Anderson Aff. at ¶18; Matsuzawa Aff. at ¶18). The finding that chimpanzees yawn more frequently in response to seeing familiar individuals yawning compared to unfamiliar others provides support for a link between contagious yawning and empathy (Anderson Aff. at ¶18; Matsuzawa Aff. at ¶18). Chimpanzees who were shown videos of other chimpanzees yawning or just showing open-mouth facial expressions that were not yawns, showed higher levels of yawning in response to the yawn videos but not to the open-mouth displays but not the other (Matsuzawa Aff. at ¶18). These findings are similar to contagious yawning effects observed in humans, and are thought to be based on the capacity for empathy, (Matsuzawa Aff. at ¶18).

In the wild and in captivity, chimpanzees engage in sophisticated forms of tactical deception that require attributing mental states and motives to others (Anderson Aff. at

¶14). This is shown, for example, when individuals console an unrelated victim of aggression by a third-party (Anderson Aff. at ¶14). They show concern for others in risky situations, such as when a chimpanzee group crosses a road, the stronger and more capable adult males will investigate the situation before more vulnerable group-members cross, and will take up positions at the front and rear of the procession (Anderson Aff. at ¶14). Knowledge of one's own and others' capabilities is probably also at the origin of some instances of division of labor (Anderson Aff. at ¶14). This includes sex differences in cooperative hunting for live prey, and crop-raiding; these activities often lead to individuals in possession of food sharing it with those who do not (Anderson Aff. at ¶14).

One consequence of self-awareness may be awareness of death; chimpanzees demonstrate compassion, bereavement-induced depression, and an understanding of the distinction between living and non-living, in a manner similar to humans when a close relative passes away, which strongly suggests that chimpanzees, like humans, feel grief and compassion when dealing with mortality (Anderson Aff. at ¶19).

One of the most important indicators of intelligence is the capacity for tool-making and use (McGrew Aff. at ¶15). Chimpanzees' performance on intelligence tests is equivalent to that of three and four year-old human children, especially in physical intelligence, which involves object manipulation (McGrew Aff. at ¶14). Tool-making implies complex problem-solving skills and is further evidence of an understanding of means-ends relations and causation, as it requires making choices, often in a specific sequence, towards a predefined goal, which is a key aspect of intentional action (McGrew Aff. at ¶15; Fugate Aff. at 17).

Chimpanzees demonstrate intelligent tool-making and use in both nature and captivity. In nature they make and use tools of vegetation and stone in daily life for hunting, gathering, fighting, play, communication, courtship, hygiene and socializing (McGrew Aff. at ¶15). Tool-making and tool-use are chimpanzee species universals, found in all populations studied over the long-term (McGrew Aff. at ¶15).

Chimpanzees make and use complex tools that require them to utilize two or more objects towards a single goal (McGrew Aff. at ¶16). An example is using one stone as a hammer and another as an anvil for cracking hard nuts (McGrew Aff. at ¶16). Chimpanzees make compound tools, in which two or more components are combined as a single working unit (McGrew Aff. at ¶16). Examples include the leaf sponge in which several fresh leaves are compressed into a single absorbent mass that allows water to be extracted from tree holes, and the wedge stone, in which chimpanzees insert a stone under an anvil to level its working surface to increase its efficiency (McGrew Aff. at ¶16). Such composite tool use reflects the fact that chimpanzees have the mental capacity to combine components of their environment in appropriate ways to attain a desired outcome (McGrew Aff. at ¶16). These capacities also involve making adjustments to existing circumstances in order to attain a goal and demonstrating that chimpanzees desire certain outcomes over others and work to achieve them (McGrew Aff. at ¶16).

Chimpanzees use "tool sets," two or more tools in an obligate sequence to achieve a single goal (McGrew Aff. at ¶17). For example, they have been known to use a set of five objects – pounder, perforator, enlarger, collector, and swab – to obtain honey (McGrew Aff. at ¶17). This kind of sophisticated tool-use involves choosing the appropriate objects in a complex hierarchical sequence to obtain a goal which is kept in

mind throughout the process (McGrew Aff. at ¶17). This kind of sequencing and mental representation is a hallmark of intentionality and self-regulation (McGrew Aff. at ¶17).

Chimpanzees have taken tool-making and use into a realm once thought to be unique to humans, that is, culture (McGrew Aff. at ¶17). Culture is behavior that is learned socially (learned by watching others), is normative (represents something most individuals do), and collective (characteristic of a group or community) (McGrew Aff. at ¶18). It is a set of behaviors transmitted by social and observational learning (learning by watching others), which becomes characteristic of a certain group or population (McGrew Aff. at ¶18). Culture is based on several high-level cognitive capacities, including imitation (the direct mimicking of bodily actions), emulation (learning about the results of someone else's actions, then achieving those results in another way) and innovation (producing novel ways to do things and combining known elements in new ways) all of which chimpanzees share (McGrew Aff. at ¶18). Under natural condition, chimpanzees construct a social structure that is rule-based, conscious and successful; culture allows them to survive as group (Savage-Rumbaugh Aff. at ¶11f).

Decades of observational field research in various locations in Africa have produced an overwhelming amount of evidence that wild chimpanzees possess different cultural traditions that they pass on from one generation to the next (McGrew Aff. at ¶19). These chimpanzee traditions meet the same criteria that define human culture (McGrew Aff. at ¶19).

Three general cultural domains are found in humans and chimpanzees: 1) material culture, defined as the use of one or more physical objects as a means to achieve an end, 2) social culture, defined as behaviors that allow individuals to develop and benefit from

social living, and 3) symbolic culture, defined as special communicative gestures and vocalizations which are only arbitrarily, that is symbolically, associated with certain intentions and behaviors (McGrew Aff. at ¶19).

With respect to the tool-making and using aspect of material culture, while all wild chimpanzees make and use tools, each chimpanzee group makes and uses a unique combination of tools known as a "tool kit" (McGrew Aff. at ¶20). Their use of a tool kit indicates that chimpanzees form a mental representation of a sequence of acts aimed at achieving a future desired outcome (Affidavit of James Anderson, at 6). A chimpanzee tool kit is a unique set of about 20 different tools, often used in a specific sequence, for various functions in daily life (McGrew Aff. at ¶20; Anderson Aff. at ¶16). These include tools used for foraging and processing food, such as specialized sticks to open up termite mounds, stems used as probes in ant nests, sticks to get marrow out of the bones of dead animals, stone "hammer and anvil" to crack nuts, among a wide variety of others (McGrew Aff. at ¶20). Tools are also made and used for personal comfort and hygiene, including using leaves to clean the body, using certain stems to comb through hair, using sticks to clear the nasal passages and using a leafy twig to fan away flies, among many others (McGrew Aff. at ¶20). Tools include those used for nest building (for sleeping), which involve specialized ways of bending branches and sticks to make a comfortable and secure sleeping nest in the trees (McGrew Aff. at ¶20). These "tool kits" vary from group to group, are passed down by observing others performing the tasks and are found in a wide range of ecological locations, from savannah to rainforest (McGrew Aff. at ¶20).

Tool-making is not genetically determined or fixed; it is not "hard-wired" behavior or simple reflex (McGrew Aff. at ¶20). Rather, tool-making depends on the same mental abilities that underlie human culture – learning from others and making specific decisions about how to do things. Each chimpanzee group develops its own culture through its own behavioural choices (McGrew Aff. at ¶20). Decades of field work show that there are at least 40 unique chimpanzee cultures spread across Africa made up of combinations of over 65 different identifiable behaviors (McGrew Aff. at ¶20). In addition to those already mentioned, these include the ingestion of various plant materials for their medicinal properties as anti-bacterial agents and dewormers (McGrew Aff. at ¶20).

Though many of the tools in chimpanzee tool kits are not preserved in the archaeological record, because they are made of organic materials that decompose over time, such as leaves, stems, bark, such chimpanzee stone tools as hammer and anvils are preserved in the same way as are human stone tools (McGrew Aff. at ¶21). Chimpanzee stone artefacts have been compared with early human stone artefacts in terms of what they reveal about their comparative mental abilities (McGrew Aff. at ¶21). The foraging tool kits of some chimpanzee populations, such as in western Tanzania, are indistinguishable in complexity from the tools kits of some of the simplest material cultures of humans, such as Tasmanian aborigines, and of the oldest known human artefacts, such as those of the Oldowan Industry discovered in East Africa (McGrew Aff. at ¶21). Dated chimpanzee stone artefacts excavated from sites in West Africa show there was once a chimpanzee "Stone Age," just as there was a "Stone Age" for humans, that dates to at least 4,300 years ago (McGrew Aff. at ¶21). The ages of the tools suggest that,

in at least one population chimpanzee tool-making culture has been passed down for 225 generations (McGrew Aff. at ¶21). These findings demonstrate that chimpanzee culture has very deep roots that predate the onset of settled farming villages and the invention of Iron Age technology in that part of Africa (McGrew Aff. at ¶21).

With respect to social culture, chimpanzees pass many social displays and social customs from one generation to the next (McGrew Aff. at ¶22). Examples include the "waterfall display" reported by Jane Goodall (McGrew Aff. at ¶22). Male chimpanzees approached a waterfall in the Gombe National Park, Tanzania, and displayed in slow, rhythmic motions along the riverbed (McGrew Aff. at ¶22). For ten minutes or more, they picked up and threw rocks and branches, leaped to seize hanging vines, and swung over the stream in the wind (McGrew Aff. at ¶22). Goodall refers to these purposeful displays as likely expressions of feelings of awe in the chimpanzees towards the waterfall (McGrew Aff. at ¶22). Another example is the social "rain dance," a slow and deliberate pattern of rhythmic, bipedal locomotion at the start of rain performed mostly at the beginning of rainy season (McGrew Aff. at ¶22). Another is the grooming hand-clasp in which two chimpanzees clasp each other's hands, raise those arms in the air, and groom each other with their free hand (McGrew Aff. at ¶22). This social custom was first observed in the Mahale Mountains of Tanzania, and occurs, with some variation, in other locations, but is absent in others (McGrew Aff. at ¶22). This demonstrates the wide variability in social cultural expression across different chimpanzee groups (McGrew Aff. at ¶22).

The symbolic element that is key to human culture is found in wild chimpanzees (McGrew Aff. at ¶23). For instance, in one chimpanzee group arbitrary symbolic gestures

are used to communicate desire to have sex whereas in another group an entirely different symbolic gesture is used to express the same sentiment (McGrew Aff. at ¶23). The presence of symbolic culture in chimpanzees demonstrates that abstract concepts can be present without human language (McGrew Aff. at ¶23).

Comparisons between human and chimpanzee cultures demonstrate that the similarities are underwritten by a common set of mental abilities (McGrew Aff. at ¶24). The most important are imitation and emulation. Learning by observation is key to being able to imitate or emulate (McGrew Aff. at ¶24). Studies show that chimpanzees copy methods used by others to manipulate objects and use both direct imitation and emulation, depending on the circumstance (McGrew Aff. at ¶24).

True imitation, which involves copying bodily actions, is an important hallmark of self-awareness because it suggests the individual has a sense of his own body and how it corresponds to someone else's body and that he can manipulate his body in accordance with the other's actions (McGrew Aff. at ¶24). There is ample evidence that, under the right circumstances, chimpanzees mimic the actions of others precisely, even mimicking the correct sequence of actions to achieve a goal (McGrew Aff. at ¶24; Anderson Aff. ¶17). For instance, chimpanzees imitate the actions of humans, or other chimpanzees, as well as the exact sequence of three actions in order to open up an "artificial fruit" to get a treat (McGrew Aff. at ¶24).

Chimpanzee infants share with human infants the ability to selectively imitate facial expressions (Anderson Aff. at ¶17). Chimpanzees may directly imitate someone else's way to achieve a goal when they have not yet figured out their own way to achieve the same goal (McGrew Aff. at ¶24; Anderson Aff. at ¶17). When chimpanzees already

have the skills to complete a task they tend to emulate, not imitate (McGrew Aff. at ¶24). These findings show that chimpanzees make choices about whether to directly copy someone else's actions based on whether they think they can figure out how to do the task themselves (McGrew Aff. at ¶24).

Not only do chimpanzees imitate, but they also know when they are being imitated, and respond as young human toddlers do when they realize they are being imitated (McGrew Aff. at ¶24). Both chimpanzees and young human children tend to "test out" the behavior of the imitator by making repetitive actions and looking to see if the imitator does the same (McGrew Aff. at ¶24). This behavior is similar to how chimpanzees and toddlers test whether an image in a mirror is herself (McGrew Aff. at ¶24). This action, called "contingency checking," is another hallmark of self-awareness (McGrew Aff. at ¶24).

In addition to being aware of being imitated and being able to imitate others, chimpanzees engage in "deferred imitation," copying actions they have seen in the extended past (McGrew Aff. at ¶24; Anderson Aff. at ¶17). Deferred imitation relies upon even more sophisticated capacities than direct imitation, as the chimpanzees must remember the past actions of another, while replicating those actions in real time (McGrew Aff. at ¶24).

All these capacities for imitation and emulation are necessary for "cumulative cultural evolution" (McGrew Aff. at ¶25; Anderson Aff. at ¶17). This specific cultural capacity, found in humans and chimpanzees, involves the ability to build upon customs that came before (McGrew Aff. at ¶25). Moreover, chimpanzees, like humans, have a tendency to be social conformists, which allows them to maintain customs within groups

(McGrew Aff. at ¶25). All of the evidence so far suggests a striking similarity between the mental capacities of humans and chimpanzees in the areas of observational learning, imitation (and thus self-awareness), decision-making, memory and innovation (McGrew Aff. at ¶25).

Chimpanzees appear to have moral inclinations and some level of moral agency; they behave in ways that, if we saw the same thing in humans, we would interpret as a reflection of moral imperatives (McGrew Aff. at ¶26). They ostracise individuals who violate social norms (McGrew Aff. at ¶26). They respond negatively to inequitable situations, e.g. when offered lower rewards than companions receiving higher ones, for the same task (McGrew Aff. at ¶26). When given a chance to play economic games, such as the Ultimatum Game, they spontaneously make fair offers, even when not obliged to do so (McGrew Aff. at ¶26).

Chimpanzee social life in nature is cooperative (McGrew Aff. at ¶27). They engage in collaborative social hunting, in which different individual hunters adopt different roles that increase the chances of success of the hunt (McGrew Aff. at ¶27). After the hunt, they share the meat from the prey gained (McGrew Aff. at ¶27). Males cooperate in territorial defense, when they engage in risky boundary patrolling (McGrew Aff. at ¶27). Encounters with neighbouring males may be fatal, so that such cooperation may have life-or-death consequences (McGrew Aff. at ¶27). These types of behaviors represent a purposeful and well-coordinated social system (McGrew Aff. at ¶27).

Numerosity, the ability to understand numbers as a sequence of quantities, requires not only sophisticated working memory (in order to keep numbers in mind), but a conceptual understanding of a sequence (Matsuzawa Aff. at ¶19). This is closely

related to "mental time travel" and planning out the right sequence of steps towards a goal, two critical components of autonomy (Matsuzawa Aff. at ¶19). Not only do chimpanzees excel at understanding sequences of numbers, they understand that Arabic symbols ("2", "5", etc.) represent discrete quantities, outperforming humans in some of these tasks (Matsuzawa Aff. at ¶19).

Sequential learning is the ability to encode and represent the order of discrete items occurring in a sequence (Matsuzawa Aff. at ¶19). Sequential learning is critical for human speech and language processing, the learning of action sequences, or any task that requires putting items into an ordered sequence (Matsuzawa Aff. at ¶19). Chimpanzees can count or sum up arrays of real objects or Arabic numerals and display the concepts of ordinality and transitivity (the logic that if A = B and B = C, then A = C) when engaged in numerical tasks, demonstrating a real understanding of the ordinal nature of numbers (Matsuzawa Aff. at ¶19). Chimpanzees understand proportions (e.g., 1/2, 3/4, etc.) (Matsuzawa Aff. at ¶19). They can learn to name (using a symbol-based computer keyboard) the number, color and type of object shown on the screen (Matsuzawa Aff. at ¶19). They can use a computer touch screen to count from 0 to 9 in sequence (Matsuzawa Aff. at ¶19). They have an understanding of the concept of zero, using it appropriately in ordinal context (Matsuzawa Aff. at ¶19). They can count as high as 21 (Savage-Rumbaugh Aff. at ¶29). Moreover, chimpanzees display "indicating acts" (pointing, touching, rearranging) similar to what human children display when counting up a sum (Matsuzawa Aff. at ¶19). Just as children touch each item when counting an array of items, chimpanzees do the same thing, suggesting further similarity in the way numbers and sequences are conceptualized in chimpanzees and humans (Matsuzawa Aff. at ¶20).

Chimpanzees have excellent working, or short-term, memory (Matsuzawa Aff. at ¶20). Working memory is the ability to temporarily store, manipulate and recall items (numbers, objects, names, etc.) (Matsuzawa Aff. at ¶20). It has to do with how good someone is at keeping several items in mind at the same time (Matsuzawa Aff. at ¶20). Working memory tasks require monitoring (i.e., manipulation of information or behaviors) as part of completing goal-directed actions in the setting of interfering processes and distractions (Matsuzawa Aff. at ¶20). The cognitive processes needed to achieve this include attention and executive control (reasoning, planning and execution) (Matsuzawa Aff. at ¶20). Chimpanzees were shown the numerals 1-9 spread randomly across a computer screen (Matsuzawa Aff. at ¶20). The numbers appeared for a very limited duration (210, 430, and 650 milliseconds) and then were replaced by white squares, which had to be touched in the correct order (1-9) (Matsuzawa Aff. at ¶20). To complicate matters, in another version of the task, as soon as the chimpanzees touched the number 1, the remaining either were immediately masked by white squares (Matsuzawa Aff. at ¶20). To successfully complete the task, they had to remember the location of each concealed number and touch them in the correct order (Matsuzawa Aff. at ¶20). The performance of a number of the chimpanzees on these seemingly impossible memory tasks was not only accurate, but much better than that of human adults, who could not even complete most of the versions of the task (Matsuzawa Aff. at ¶20). Therefore, the chimpanzees have an extraordinary working memory capability for numerical recollection better than that of adult humans, which underlies a number of mental skills related to mental representation, attention, and sequencing (Matsuzawa Aff. at ¶20).

These remarkable similarities between humans and chimpanzees are not limited to the domain of autonomy, but are true for personality and emotion (King Aff. at ¶12; Osvath Aff. at ¶11). A significant similarity exists between chimpanzees and humans in the structure of their personality and subjective well-being or happiness (King Aff. at ¶12). The basic factors or dimensions that characterize chimpanzee personality, which are heritable the same way human personality is heritable, are remarkably similar to those that characterize human personality and change with age as do human personality factors (King Aff. at ¶¶13-21). For example, chimpanzee happiness or subjective well-being mimics human happiness or subjective well-being, and is similarly stable, related to other aspects of personality, undergoes a midlife crisis, and predicts longevity (King Aff. at ¶¶22-28).

Chimpanzees are very competent at "cross-modal perceptions." They can take in information in one modality such as vision or hearing, and internally translate it to information in another modality (Savage-Rumbaugh Aff. at ¶26). They can match a vocalization (audio) recording of a familiar chimpanzee individual or a video of a familiar individual chimpanzee producing a vocalization to the picture of the individual, or a voice recording of a familiar human to the picture of the human (Fugate Aff. at ¶16). They can take in symbolically encoded information and translate it into any non-symbolic mode (Savage-Rumbaugh Aff. at ¶26). When shown a picture of an object, they can retrieve that object by touch alone. They can retrieve the correct object by touch when shown only the symbol representing that object (Savage-Rumbaugh Aff. at ¶26).

On June 26, 2013, the National Institutes of Health (NIH) announced the agency's decisions with respect to recommendations concerning the use of chimpanzees in NIH-

supported research by The Working Group on the Use of Chimpanzees in NIH-Supported Research within the Council of Councils' Recommendation. *Announcement of Agency Decision: Recommendations on the Use of Chimpanzees in NIH-Supported Research* (June 26, 2013), *available at* http://dpcpsi.nih.gov/council/pdf/NIH_response_to_Council_of_Councils_recommendations_62513.pdf (last visited November 20, 2013) ("*NIH Decision*") (Affidavit of Steven M. Wise ("Wise Aff.") annexed as Exhibit 3). These included acceptance of the following recommendations of The Working Group:

1. Working Group Recommendation EA1: "Chimpanzees must have the opportunity to live in sufficiently large, complex, multi-male, multi-female social groupings, ideally consisting of at least 7 individuals. Unless dictated by clearly documented medical or social circumstances, no chimpanzee should be required to live alone for extended periods of time. Pairs, trios, and even small groups of 4 to 6 individuals do not provide the social complexity required to meet the social needs of this cognitively advanced species. When chimpanzees need to be housed in groupings that are smaller than ideal for longer than necessary, for example, during routine veterinary examinations or when they are introduced to a new social group, this need should be regularly reviewed and documented by a veterinarian and a primate behaviorist." (*NIH Decision* at 5).
2. Working Group Recommendation EA2: "The density of the primary living space of chimpanzees should be at least 1,000 square feet (93 square meters). Therefore, the minimum outdoor enclosure size for a group of 7 animals should be 7,000 square feet (651 square meters)". While the NIH *rejected* this recommendation,

stating that "[a]lthough the NIH agrees that sufficient square footage is needed for chimpanzees to travel, patrol, co-exist in social groups of 7 or more members, and separate from others, the agency is concerned about the lack of scientific consensus on the recommended square footage and is especially concerned about whether the published literature supports 1,000 square feet per chimpanzee . . . the agency will review the space density requirements with respect to the promotion of species-appropriate behavior." (*NIH Decision* at 6-8).

3. Working Group Recommendation EA4: "Chimpanzees should have the opportunity to climb at least 20 ft (6.1m) vertically. Moreover, their environment must provide enough climbing opportunities and space to allow all members of larger groups to travel, feed, and rest in elevated spaces." (*NIH Decision* at 8-9).
4. Working Group Recommendation EA5: "Progressive and ethologically appropriate management of chimpanzees must include provision of foraging opportunities and diets that are varied, nutritious, and challenging to obtain and process." (*NIH Decision* at 9-10).
5. Working Group Recommendation EA6: "Chimpanzees must be provided with materials to construct new nests on a daily basis." The NIH *accepted* this recommendation. (*NIH Decision* at 10-11).
6. Working Group Recommendation EA8: "Chimpanzee management staff must include experienced and trained behaviorists, animal trainers, and enrichment specialists to foster positive human-animal relationships and provide cognitive stimulation[.]" (*NIH Decision* at 11-12).

NAPSA was founded in 2010 by the directors of the seven leading chimpanzee sanctuaries in North America (Affidavit of Sarah Baeckler Davis ("Davis Aff."), at ¶4). With a mission to provide exceptional lifetime sanctuary care for chimpanzees, NAPSA represents the gold standard in primate care and provides permanent sanctuary to almost 500 chimpanzees (Davis Aff. at ¶¶5-6). Each sanctuary cares for chimpanzees in ethnologically appropriate social groups of no fewer than seven chimpanzees, provides naturalistic outdoor environments for the chimpanzees, has extensive environmental enrichment, and enough space and opportunity to exhibit species-typical behaviors like running, grooming, nesting, and climbing, has large numbers of staff, and adheres to strict and comprehensive standards (Davis Aff. at ¶¶7-8, ¶¶10-26). For example, Save the Chimps in Ft. Pierce, Florida, provides permanent homes for 261 chimpanzees on twelve artificial islands, upon which live groups of up to 25 chimpanzees, and has 59 employees (Davis Aff. at ¶20).

III. ARGUMENT

A. THE NhRP HAS STANDING TO FILE THIS PETITION.

The NhRP has standing to bring this action on behalf of Kiko. N.Y. C.P.L.R. § 7002(a) provides that "[a] person illegally imprisoned or otherwise restrained in his liberty within the state, *or one acting on his behalf* . . . may petition without notice for a writ of habeas corpus to inquire into the cause of such detention and for deliverance." (emphasis added). As was the law in England where concerned third parties brought famous habeas corpus actions on behalf of detained black slaves, *Somerset v. Stewart,* 20 Howell's State Trials 1, 98 Eng. Rep. 499, Lofft 1 (K.B. 1772) (third parties sought common law writ of habeas corpus on behalf of black slave imprisoned on a ship); *Case*

of the Hottentot Venus, 13 East 185, 104 Eng. Rep. 344 (K.B. 1810) (Abolitionist Society sought common law writ of habeas corpus to determine whether an African women who was being exhibited in London was there on her own free will), New York has long recognized broad common law next friend representation in habeas corpus cases. *See Lemmon v. People*, 20 N.Y. 562 (N.Y. 1860) (as he had in other cases, the dock worker, Louis Napoleon, sought a writ of habeas corpus on behalf of eight detained slaves with whom he had no relationship); *Holzer v. Deutsche Reichsbahn Gesellschaft*, 290 N.Y.S. 181, 192 (N.Y. Sup. Ct. 1936) *aff'd*, 299 N.Y.S. 748 (1937) *aff'd in part, modified in part*, 277 N.Y. 474 (1938) ("[i]n 1852 Mrs. Lemmon, of Virginia, proceeded to Texas via New York, with eight negro slaves. . . . Upon her arrival in New York a free negro, as next friend, obtained a writ of habeas corpus which was sustained"); *People v. McLeod*, 1842 WL 5106, 3 Hill 635, 647 note j (N.Y. 1842) ("every Englishman who is imprisoned by any authority whatsoever, has an undoubted right, by his agents or *friends*, to apply for and obtain a writ of habeas corpus") (citations omitted, emphasis added); *People ex rel. Turano v. Cunningham*, 395 N.Y.S.2d 4 (N.Y. App. Div. 1st Dept. 1977); *State v. Lascaris*, 322 N.Y.S.2d 426 (N.Y. App. Div. 4th Dept. 1971); *People ex rel. Hubert v. Kaiser,* 150 A.D. 541, 544 (N.Y. App. Div. 1912); *People ex rel. Sheldon v. Curtin,* 152 A.D. 364 (N.Y. App. Div. 1912); *People ex rel. Rao v. Warden of City Prison*, 11 N.Y.S.2d 63 (N.Y. Sup. Ct. 1939).

B. ONE CLAIMING TO BE A PERSON ILLEGALLY IMPRISONED IN NEW YORK IS ENTITLED TO A COMMON LAW WRIT OF HABEAS CORPUS.

1. "Legal person" is not a synonym for "human being," but designates an entity with the capacity to possess legal rights.

"[U]pon according legal personality to a thing the law affords it the rights and privileges of a legal person." *Byrn v. New York City Health & Hospitals Corporation*, 31 N.Y.2d 194, 201 (N.Y. 1972) (*citing* John Chipman Gray, *The Nature and Sources of the Law*, Chapter II (1909); Hans Kelsen, *General Theory of Law and State* 93-109 (1945); George Whitecross Paton, *A Textbook of Jurisprudence* 349-356 (4th ed., G.W. Paton & David P. Derham eds. 1972); Wolfgang Friedman, *Legal Theory* 521-523 (5th ed. 1967)). Legal persons possess inherent value; "legal things," possessing merely instrumental value, exist solely for the sake of legal persons. 2 William Blackstone, *Commentaries on the Laws of England* *16 (1765-1769).

"Legal person" is not a synonym for "human being." Legal person is not even a biological concept. It does not "necessarily correspond" to the "natural order." *Byrn,* 31 N.Y.2d at 201. Legal personhood is a legal concept. "Legal person" may be narrower than "human being." For the purpose of the Fourteenth Amendment to the United States Constitution, a human fetus is not a legal person. *Roe v. Wade*, 410 U.S. 113 (1973). Before the Civil War, human slaves were not legal persons. *See, e.g., Jarman v. Patterson*, 23 Ky. 644, 645-46 (Ky. 1828) ("Slaves, although they are human beings, are by our laws placed on the same footing with living property of the brute creation. However deeply it may be regretted, and whether it be politic or impolitic, a slave by our code, is not treated as a person, but (*negotium*), a thing, as he stood in the civil code of the Roman Empire. In other respects, slaves are regarded by our laws, as in Rome, not as persons, but as things"); *Ex parte Boylston*, 33 S.C.L. (1 Strob) 41, 43 (S.C. Ct. App. of Law 1847) ("'every endeavor to extend to (a slave) positive rights, is an attempt to reconcile inherent contradictions.' In the very nature of things, he is subject to

despotism") (*quoting Kinloch v. Harvey*, Harp. 50816 S.C.L. 508 (S.C. App. L. & Eq. 1830)).

"Legal person" may designate an entity broader or qualitatively different than a human being. "Legal personality may be granted to entities other than individual human beings, e.g. a group of human beings, a fund, an idol." George Whitecross Paton, *A Textbook of Jurisprudence* 393 (3rd ed. 1964). Corporations have long been "persons" within the meaning of the Fourteenth Amendment to the United States Constitution. *Santa Clara County v. Southern Pacific Railroad*, 118 U.S. 394 (1996). An August 30, 2012 agreement between the indigenous peoples of New Zealand and the Crown, p.10, secs. 2.6, 2.7, and 2.8, designated New Zealand's Whanganui River Iwi as a legal person. *See* http://nz01.terabyte.co.nz/ots/DocumentLibrary%5CWhanganuiRiverAgreement.pdf (last visited November 20, 2013).

"There is no difficulty giving legal rights to a supernatural being and thus making him or her a legal person." John Chipman Gray, *The Nature and Sources of the Law*, Chapter II, 39 (1909) ("Gray"). Citing, among other authorities, George Whitecross Paton, *supra*, at 349-350, *Salmond on Jurisprudence* 305 (12th ed. 1928) ("A legal person is any subject-matter other than a human being to which the law attributes personality. This extension, for good and sufficient reasons, of the conception of personality beyond the class of human beings is one of the most noteworthy feats of the legal imagination,"), and IV Roscoe Pound, *Jurisprudence* 192-193 (1959), a common law Indian court designated the Sri Guru Granth Sahib - the sacred text of Sikhism - as a "legal person" with the capacity to sue and be sued. *Shiromani Gurdwara Parbandhak Committee Amritsar v. Som Nath Dass*, A.I.R. 2000 S.C. 421 (Indian Supreme Court). This

permitted the Sri Guru Granth Sahib to own and possess property. Another Indian court designated a mosque as a legal person, to the same end. *Masjid Shahid Ganj & Ors. v. Shiromani Gurdwara Parbandhak Committee, Amritsar*, A.I.R 1938 369 (Lahore High Court, Full Bench). A pre-Independence court designated a Hindu idol as a "person" with the capacity to sue. *Pramath Nath Mullick v. Pradyunna Nath Mullick,* 52 Indian Appeals 245, 264 (1925).

The struggles over the legal personhood of human fetuses,[1] human slaves,[2] Native Americans,[3] women,[4] corporations,[5] and other entities have never been over whether they are human but whether, under the circumstances, justice demands that they count in law. In short, "'[p]erson' is a term of art." *Wartelle v. Womens' & Children's Hospital,* 704 So. 2d 778, 781 (La. 1997). Legal persons count, whether they are rivers, religious idols, holy books, former slaves, corporations, fetuses, or human beings; "legal things" don't. *See*

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[1] *Roe,* 410 U.S. 113; *Byrn,* 31 N.Y.2d 194.

[2] *Compare Trongett v. Byers*, 5 Cow. 480 (N.Y. Sup. Ct. 1826) (recognizing slaves as property), *Smith v. Hoff*, 1 Cow. 127, 130 (N.Y. 1823) (same), *In re Mickel*, 1817 WL 1515, 14 Johns. 324 (N.Y. Sup. Ct. 1817) (same) and *Sable v. Hitchcock*, 2 Johns. Cas. 79 (N.Y. Sup. Ct. 1800) (same) *with Lemmon*, 20 N.Y. 562 (slaves are free) and *Somerset*, 98 Eng. Rep. 499 (slavery is "so *odious* that nothing can be suffered to support it but positive law") (emphasis added).

[3] *United States ex rel. Standing Bear v. Crook,* 25 F. Cas. 695, 697 (D. Neb. 1879) (Native Americans are "persons" within the meaning of the Federal Habeas Corpus Act).

[4] *See, e.g., Nairn v. University of St. Andrews*, A.C. 147 (1909) ("It is incomprehensible to me that anyone acquainted with our laws or the methods by which they are ascertained can think, if anyone does think, there is room for argument of such a point" [that "all persons" who graduated from certain universities included women]); *In re Goodell*, 39 Wis. 232, 240 (Wis. 1875) (women could not be lawyers); Blackstone, *Commentaries on the Law of England* *442 (1765-1769) ("By marriage, the husband and wife are one person in law: that is the very being or legal existence of the woman is suspended during the marriage . . . ")

[5] *Citizens United v. Federal Communications Commission*, 558 U.S. 310 (2009) (corporations are "persons" within the meaning of the Fourteenth and First Amendments to the United States Constitution). But corporations are not protected by the Fifth Amendment's Self-Incrimination Clause. *Bellis v. United States*, 417 U.S. 85 (1974).

Note, *What We Talk About When We Talk About Persons: The Language of a Legal Fiction,* 114 HARV. L. REV. 1745, 1746 (2001).

"[T]he significant fortune of legal personality is the capacity for rights." IV Roscoe Pound, *Jurisprudence* 197 (1959). "The technical legal meaning of a 'person,'" said John Chipman Gray, is "a subject of legal rights and duties." Gray, *supra*, at 27.[6] "'To be a person' or 'to have a legal personality," is identical to having legal obligations and subjective rights." Hans Kelsen, *Pure Theory of Law* 172 (rev. and enlarged 1967). *See* Paton, *supra*, at 391 ("legal persons are all entities capable of being right-and-duty bearing units – all entities recognized by the law as capable of being parties to a legal relationship"); *Amadio v. Levin,* 509 Pa. 199, 225 (1985) (Zappala, J., concurring) ("[p]ersonhood' as a legal concept arises not from the humanity of the subject but from the ascription of rights and duties to the subject" and "'not every human being is necessarily a person, for a person is capable of rights and duties, and there may well be human beings having no legal rights, as was the case with slaves in English law.'") (*citing Black's Law Dictionary* 1299, 1300 (4th ed. 1968); Pollock, First Book of Jurisprudence 110; Gray, *supra*, for both statements); *Wartelle,* 704 So. 2d at 780-81 (the "classification of 'person' [a fetus] is made solely for the purpose of facilitating determinations about the attachment of legal rights and duties.")

That Kiko is a chimpanzee does not mean he may never count as a legal person. As Gray explained, there may also be

> systems of law in which animals have legal rights . . . animals may conceivably be legal persons . . . when, if ever, this is the case, the wills of human beings must be attributed to the animals. There seems no essential

[6] This statement lies in Chapter II, cited with approval in *Byrn*, 31 N.Y.2d at 201.

> difference between the fiction in such cases and those where, to a human being wanting in legal will, the will of another is attributed.

Gray, *supra,* at 43. Who is deemed a legal person is a "matter which each legal system must settle for itself." *Byrn*, 31 N.Y.2d at 202 (quoting Gray, *supra*, at 3).

The historic question before this Court is whether Kiko, an illegally imprisoned chimpanzee, is a legal person who "counts" for the purpose of a common law writ of habeas corpus in the state of New York. In the following sections, the NhRP will demonstrate that, both as a matter of New York common law liberty and common law equality, Kiko should be recognized as a legal person possessed of the common law right to bodily liberty that the common law writ of habeas protects.

2. New York recognizes the common law writ of habeas corpus.

The "common-law writ of habeas corpus [is] a writ in behalf of liberty, and its purpose [is] to deliver a prisoner from unjust imprisonment and illegal and improper restraint." *People ex rel. Pruyne v. Walts*, 122 N.Y. 238, 241-42 (N.Y. 1890). It is, and always has existed in New York, independent of statute. *People ex rel. Jenkins v. Kuhne,* 57 Misc. 30, 40 (N.Y. Sup. Ct. 1907), *aff'd.*, 195 N.Y. 610 (N.Y. 1909) ("A writ of habeas corpus is a common law writ and not a statutory one. If every provision of statute respecting it were repealed, it would still exist and could be enforced."); *People ex rel. Tweed v. Liscomb*, 60 N.Y. 559, 565 (N.Y. 1875) ("is not the creature of any statute . . . and exists as a part of the common law of the State"); *People ex rel. Patrick v. Frost*, 133 A.D. 179, 187-88 (N.Y. App. Div. 2nd Dep't 1909).[7]

[7] It may never be suspended except in exigent circumstances. N.Y. Const. Art. 1, § 4; *Morhous v. Supreme Court*, 293 N.Y. 131, 135 (N.Y. 1944).

In New York, the common law writ of habeas corpus "lies in all cases of imprisonment by commitment, detention, confinement or restraint, for whatever cause, or under whatever pretence." *McLeod*, 3 Hill 635 "note j." Its "scope and flexibility . . . its capacity to reach all manner of illegal detention - its ability to cut through barriers of form and procedural mazes-have always been emphasized and jealously guarded by courts and lawmakers." *Harris v. Nelson*, 394 U.S. 286, 291 (1969). *See, e.g., People ex rel. Keitt v. McCann*, 18 N.Y.2d 257, 263 (N.Y. 1966); *People ex rel. Schreiner v. Tekben*, 607 N.Y.S.2d 850, 851 (N.Y. Sup. Ct. 1993).

The procedure for using the common law writ of habeas corpus is set forth in N.Y. C.P.L.R. §§ 7001-7012.[8] However, "[t]he drafters of the CPLR made no attempt to specify the circumstances in which habeas corpus is a proper remedy. This was viewed as a matter of substantive law." Vincent Alexander, *Practice Commentaries, Article 70 (Habeas Corpus), In General* (2013). *See People ex rel Lobenthal v. Koehler*, 516 N.Y.S 2d 928-29 (N.Y. App. Div. 1st Dept. 1987).

C. THE RESPONDENTS MUST PROVE THEY ARE NOT IMPRISONING KIKO ILLEGALLY.

Because all persons are presumed to be entitled to personal liberty (*in favorem libertatis*),[9] the Respondents bear the burden of proving their imprisonment of Kiko is legally sufficient. *See People ex rel. Lebelsky v. Warden of New York City, Penitentiary*,

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[8] The first section provides in part: "the provisions of this article are applicable to common law or statutory writs of habeas corpus." N.Y. C.P.L.R. § 7001.

[9] *See Oatfield v. Waring*, 14 Johns. 188, 192-93 (N.Y. Super. Ct. 1817) ("all presumptions in favor of personal liberty and freedom ought to be made"); *People ex rel. Caldwell v. Kelly*, 1862 WL 4670 (N.Y. Gen. Term 1862) (Potter, J. concurring) ("Liberty and freedom are man's natural conditions: presumptions should be in favor of this construction"). *See also infra*, discussing this presumption in the context of petitioners' common law right to bodily liberty.

168 N.Y.S. 704, 706 (N.Y. Sup. Ct. 1917) ("The burden in the first instance is upon the officer or party who detains the person to show that such detention is authorized by some local authority"). After the Petitioner makes a prima facie showing of entitlement to the issuance of the writ by meeting the requirements of N.Y. C.P.L.R. § 7002(c) (requiring the petitioner to state that the person is "detained" and the "nature of the illegality"), the Court must issue the writ without delay. N.Y. C.P.L.R. § 7003(a). The burden then shifts to the Respondents to present facts that show the detention is lawful. N.Y. C.P.L.R. § 7006(a). The Respondents' return must:

> Fully and explicitly state whether the person detained is or has been in the custody of the person to who the writ is directed, the authority and cause of the detention, whether custody has been transferred to another, and the facts of and authority for any such transfer.

N.Y. C.P.L.R. § 7008(b). If the Respondents fail to set forth the cause and custody of the detention, the Petitioner must be discharged. N.Y. C.P.L.R. § 7010(a). *See People ex re. Wilson v. Flynn*, 106 N.Y.S. 1141 (N.Y. Sup. Ct. 1907).

Slaves employed the common law writ of habeas corpus in New York to challenge their imprisonment as things.[10] *Lemmon*, 20 N.Y. at 604-06, 618, 623, 630-31 (*citing Somerset*); *In re Belt*, 2 Edm. Sel. Cas. 93 (N.Y. Sup. 1848); *In re Kirk*, 1 Edm. Sel. Cas.

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[10] New York's adoption of English common law as it existed prior to April 19, 1775, *Montgomery v. Daniels*, 338 N.Y.2d 41, 57 (N.Y. 1975); *Jones v. People,* 79 N.Y. 45, 48 (N.Y. 1879): N.Y. Const. Art. I, § 14; N.Y. Const. § 35 (1777), incorporated Lord Mansfield's celebrated common law habeas corpus ruling in *Somerset v. Stewart*. In *Somerset*, Lord Mansfield began by assuming, without deciding, that the slave, James Somerset, could possibly possess the right to bodily liberty protected by the common law writ of habeas corpus, then issued the writ that required the Respondents to demonstrate that his imprisonment of James Somerset was legal. Steven M. Wise, *Though the Heavens May Fall – The Landmark Trial That Led to the End of Human Slavery* 114-20 (2005). After an oral argument spread over six months, Lord Mansfield ruled that human slavery was so "odious" it could not exist, except by positive law, and set James Somerset at liberty. 98 Eng. Rep., at 510; Lofft, at 19.

315 (N.Y. Sup. Ct. 1846) (*citing Somerset* and its progeny, *Forbes v. Cochran,* 107 Eng. Rep. 450, 467 (K.B. 1824); *In re Tom*, 5 Johns. 365 (N.Y. 1810) (per curiam) (at a time when slavery was legal in New York, a black slave successfully brought a habeas corpus action against a man Tom alleged was illegally detaining him).

Many others employed the common law writ of habeas corpus in a similar manner, including (1) apprentices and indentured servants, *People v. Weissenbach,* 60 N.Y. 385, 393 (N.Y. 1875); *People v. Hanna,* 3 How. Pr. 39 (N.Y. Sup. 1847); *In re M'Dowle*, 8 Johns. 328 (N.Y. Sup. Ct. 1811); *Rex v. DeLavel*, 97 Eng. Rep. 913 (K.B. 1763), (2) infants, *Weissenbach*, 60 N.Y. 385; *M'Dowle*, 8 Johns. 328; *In re Conroy*, 54 How. Pr. 432 (N.Y. Sup. Ct. 1878), (3) the incompetent elderly, *Brevorka ex rel. Wittle v. Schuse*, 227 A.D.2d 969 (N.Y. App. Div. 4th Dep't 1996); *State v. Connor*, 87 A.D. 2d 511, 511-12 (N.Y. App. Div. 1st Dep't 1982), and (4) other mental incompetents, *People ex rel. Brown v. Johnston*, 9 N.Y.2d 482, 485 (N.Y. 1961) (criminally insane); *People ex rel. Ledwith v. Board of Trustees*, 238 N.Y. 403, 408 (N.Y. 1924); *Sporza v. German Sav. Bank*, 192 N.Y. 8, 15 (N.Y. 1908) (insane); *People ex rel. Morrell v. Dold*, 189 N.Y. 546 (N.Y. 1907); *Williams v. Director of Long Island Home, Ltd.*, 37 A.D. 2d 568, 570 (N.Y. App. Div. 2d Dep't 1971) (insane); *Matter of Gurland*, 286 A.D. 704, 706 (N.Y. App. Div. 2d Dep't 1955); *People ex rel. Ordway v. St. Saviour's Sanitarium*, 34 A.D. 363 (N.Y. App. Div. 1898).

The NhRP may similarly employ the common law writ of habeas corpus to challenge the legality of Kiko's imprisonment. Accordingly, this Court should issue a common law writ of habeas corpus on behalf of Kiko that requires the Respondents to

provide a legally sufficient reason for imprisoning him and then determine its legal sufficiency after full oral argument.

D. BECAUSE KIKO IS IMPRISONED ILLEGALLY HE IS ENTITLED TO IMMEDIATE DISCHARGE.

An illegally imprisoned person in New York must be discharged forthwith once he brings a common law writ of habeas corpus. *People ex re. Stabile v. Warden of City Prison*, 202 N.Y. 138, 152 (N.Y. 1911). Imprisoned children and incapacitated adults have been similarly discharged from slavery, industrial training schools or other detention facilities, mental institutions, and other unlawful imprisonments. Before the Civil War, children detained as slaves were discharged through common law writs of habeas corpus into another's care. *Lemmon*, 20 N.Y. at 632 (discharged slaves included two seven-year-olds, a five-year-old, and a two-year-old); *Commonwealth v. Taylor*, 44 Mass. 72, 72-74 (Mass. 1841) (seven or eight year old slave discharged into care of the Boston Samaritan Asylum for Indigent Children); *Commonwealth v. Aves*, 35 Mass. 193 (Mass. 1836) (seven year old girl discharged into custody of Boston Samaritan Asylum for Indigent Children); *Commonwealth v. Holloway*, 2 Serg. & Rawle 305 (Pa. 1816) (child discharged); *State v. Pitney*, 1 N.J.L. 165 (N.J. 1793) (child discharged).

Free minors, who had long been discharged from industrial training schools or other detention facilities through a common law writ of habeas corpus, remained subject to the care of their parents or guardians. *People ex rel. F. v. Hill*, 319 N.Y.S.2d 961, 965 (N.Y. App. Div. 2d Dept. 1971), *aff'd*, 29 N.Y. 2d 17 (1971); *People ex rel. Silbert v. Cohen*, 320 N.Y.S.2d 608, 609 (N.Y. App. Div. 2d Dept. 1971) *aff'd*, 29 N.Y. 2d 12 (1971) (juveniles discharged); *People ex rel. Margolis on Behalf of Carlos R. v. Dunston*, 571 N.Y.S. 2d 295, 296 (N.Y. App. Div. 1st Dept. 1991); *People ex rel. Kaufmann v.*

Davis, 393 N.Y.S. 2d 746, 747 (N.Y. App. Div. 2d Dept. 1977); *People ex rel. Cronin v. Carpenter*, 25 Misc. 341, 342 (N.Y. Sup. Ct. 1898); *People ex rel. Slatzkata v. Baker*, 3 N.Y.S. 536, 539 (N.Y. Super. 1888); *In re Conroy*, 54 How. Pr. at 433-34; *People ex rel. Soffer v. Luger*, 347 N.Y.S. 2d 345, 347 (N.Y. Sup. Ct. 1973).

Minors similarly have been discharged from mental institutions pursuant to the habeas corpus writ, *People ex rel. Intner on Behalf of Harris v. Surles*, 566 N.Y.S.2d 512, 515 (N.Y. Sup. Ct. 1991), as have child apprentices, *Hanna*, 3 How. Pr. at 45; *In re M'Dowle*, 8 Johns, even though they were required to return to their parent's care.

Courts apply these principles to the discharge of incapacitated adults, *Brevorka*, 227 A.D. 2d 969 (elderly and ill woman showing signs of dementia); *Connor*, 87 A.D.2d at 511-12; *Siveke v. Keena*, 441 N.Y.S. 2d 631 (N.Y. Sup. Ct. 1981) (elderly and ill man).

As the Respondents cannot provide a legally sufficient reason for imprisoning Kiko, who the NhRP will demonstrate is a legal person within the meaning of the common law writ of habeas corpus, this Court must discharge Kiko forthwith, and order him to be evaluated by NAPSA for placement in a member sanctuary that will care for his unique needs for the rest of his life.

1. Kiko is a legal person.

a. Kiko is a legal person within the meaning of EPTL § 7-8.1.

Kiko is the beneficiary of an *inter vivos* trust created by the NhRP pursuant to EPTL §7-8.1 for the purpose of his care.[11] This statute recognizes Kiko's capacity for

[11]This is true for four reasons. First, New York courts agree that EPTL § 7-8.1 permits the creation of *inter vivos* trusts. *Feger v. Warwick Animal Shelter,* 870 N.Y.S.2d 124, 126-27 (N.Y. App. Div. 2d Dep't 2008) (New York "law now recognizes the creation of trusts for the care of designated domestic or pet animals upon the . . . *incapacitation* of their owner") (emphasis added); *In re Fouts*, 677 N.Y.S.2d 699 (N.Y. Sur. Ct. 1998)

legal personhood, as only "persons" may be trust beneficiaries. *Lenzner v. Falk,* 68 N.Y.S.2d 699, 703 (N.Y. Sup. Ct. 1947); *Gilman v. McArdle,* 65 How. Pr. 330, 338 (N.Y. Super. 1883), *rev'd on other grounds,* 99 N.Y. 451 (1885).

"Before this statute [EPTL § 7-8.1] trusts for animals were void, because a private express trust cannot exist without a beneficiary capable of enforcing it, and because non-human lives cannot be used to measure the perpetuities period." Margaret Turano, *Practice Commentaries,* N.Y. Est. Powers & Trusts Law § 7-8.1 (2013). *See In re Mills' Estate*, 111 N.Y.S.2d 622, 625 (N.Y. Sur. Ct. 1952); *In re Estate of Howells*, 260 N.Y.S. 598, 607 (N.Y. Sur. Ct. 1932). New York did not even recognize honorary trusts for nonhuman animals which, by definition, lack beneficiaries. *In re Voorhis' Est.,* 27 N.Y.S.2d 818, 821 (N.Y. Sur. Ct. 1941).

In 1996, the Legislature altered this by enacting EPTL § 7-6 (now EPTL §7-8), sec. (a), which permitted "domestic or pet animals" to be designated as trust beneficiaries.[12] This section thereby acknowledged these nonhuman animals as "persons" capable of possessing legal rights. Accordingly, in *Fouts*, the Surrogate's Court recognized that five chimpanzees were "income and principal beneficiaries of the trust"

(court recognized an *inter vivos* trust for five chimpanzees). Second, EPTL § 7-8(c) refers to a "grantor" rather than a "testator." Third, the statute's Practice Commentaries explain "the testator or *grantor* may designate a person to be enforcer of the trust terms" pursuant to subparagraph (a), Margaret Turano, *Practice Commentaries,* N.Y. Est. Powers & Trusts Law § 7-8.1 (2013) (emphasis added). Fourth, if the legislature had intended to confine the statute's reach to testamentary trusts, it would have said so.

[12] Section (a) stated in relevant part: "A trust for the care of a designated domestic or pet animal is valid. The intended use of the principal or income may be enforced by an individual designated for that purpose in the trust instrument or, if none . . . by a trustee. The Sponsor's Memorandum attached to the bill that became EPTL § 7-6.1 (and now § 7-8.1) stated the statute's purpose was "to allow animals to be made the beneficiary of a trust." Sponsor's Mem. NY Bill Jacket, 1996 S.B. 5207, Ch. 159. The Senate Memorandum made clear the statute allowed "such animal to be made the beneficiary of a trust." Mem. of Senate, NY Bill Jacket, 1996 S.B. 5207, Ch. 159.

and referred to its chimpanzees as "beneficiaries" throughout the opinion. 677 N.Y.S. 2d. at 699. In *Feger*, the appellate court observed "[t]he reach of our laws has been extended to animals in areas which were once reserved only for people. For example, the law now recognizes the creation of trusts for the care of designated domestic or pet animals upon the death or incapacitation of their owner." 870 N.Y.S.2d at 126.

In 2010, the legislature renumbered EPTL § 7-6.1 as EPTL § 7-8.1, removed "Honorary" from the statute's title, "Honorary Trusts for Pets," leaving it to read, "Trusts for Pets,"[13] and amended section (a) to read:

> A trust for the care of a designated domestic or pet animal is valid. The intended use of the principal or income may be enforced by an individual designated for that purpose in the trust instrument or, if none, by an individual appointed by a court upon application to it by an individual, or by a trustee. *Such trust shall terminate when the living animal beneficiary or beneficiaries of such trust are no longer alive.*

(emphasis added). In removing "Honorary" and the twenty-one year limitation on trust duration, the legislature dispelled any doubt that a nonhuman animal was capable of being a trust beneficiary in New York.[14] By allowing "designated domestic or pet

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[13] The Committee on Legal Issues Pertaining to Animals of the Association of the Bar of the City of New York's report to the legislature stated, "we recommend that the statute be titled 'Trusts for Pets' instead of 'Honorary Trusts for Pets,' as honorary means unenforceable, and pet trusts are presently enforceable under subparagraph (a) of the statute." N.Y. Bill Jacket, 2010 A.B. 5985, Ch. 70 (2010).

[14] Other states recognize nonhuman animals as trust beneficiaries. *See* Colo. Rev. Stat. Ann. § 15-11-901(2) (2013) ("the designated domestic or pet animals become present beneficiaries of the trust"); Mass. Gen. Laws Ann. ch. 203E, § 408 (h) (2013) ("[t]he measuring lives shall be those of the beneficiary animals, not human lives."); Nev. Rev. Stat. Ann. § 163.0075 (2013) ("animal beneficiary"); Va. Code Ann. § 64.2-726 (A) (2013) ("animal beneficiaries"); Wash. Rev. Code Ann. § 11.118.020 (2013) ("the trust will terminate when no animal that is designated as a beneficiary of the trust remains living."); Wash. Rev. Code Ann. § 11.118.050 (2013) ("an animal that is a beneficiary of the trust"). Some states define a beneficiary as a "person." *See* Colo. Rev. Stat. Ann. § 15-10-201(5) (2013) ("a person who has any present or future interest, vested or contingent, and also includes the owner of an interest by assignment or other transfer.");

animals" to be trust beneficiaries able to own the trust corpus, New York recognized these nonhuman animals as "persons" with the capacity for legal rights. Because Kiko is a New York trust beneficiary, he is a legal "person."

EPTL § 7-8.1 has created legal personhood in those nonhuman animals within its reach. This demonstrates that New York public policy already treats at least some nonhuman animals as persons capable of possessing one or more legal rights. For the reasons argued, *infra,* this Court should hold that Kiko is a legal person entitled to the common law right to the bodily liberty that the common law writ of habeas corpus protects.

b. New York common law requires this Court to declare Kiko is a common law "person."

Kiko's legal thinghood derives from the common law. When justice requires, New York courts refashion the common law with the directness Lord Mansfield displayed in *Somerset v. Stewart,* when he held slavery "so *odious* that nothing can be suffered to support it but positive law." 98 Eng. Rep., at 510; Lofft, at 19 (emphasis added). *See W.J.F. Realty Corp. v. State*, 672 N.Y.S.2d 1007, 1009 (N.Y. Sup. Ct. 1998), *aff'd*, 267 A.D.2d 233 (1999) ("For those who feel that the incremental change allowed by the Common Law is too slow compared to statute, we refer those disbelievers to the holding in *Stewart v. Somerset*, . . . which stands as an eloquent monument to the fallacy of this view").

The Court of Appeals rejects any claim that "change . . . should come from the Legislature, not the courts." *Woods v. Lancet*, 303 N.Y. 349, 355 (N.Y. 1951). "We

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Mass. Gen. Laws Ann. ch. 203E, § 103 (2013) (defining "[b]eneficiary" as "a person."); Va. Code Ann. § 64.2-701 (2013) (defining "beneficiary" as "a person.").

abdicate our own function, in a field peculiarly nonstatutory, when we refuse to reconsider an old and unsatisfactory court-made rule." *Id. See, e.g.*, *Flanagan v. Mount Eden General Hospital,* 24 N.Y. 2d 427, 434 (N.Y. 1969) ("we would surrender our own function if we were to refuse to deliberate upon unsatisfactory court-made rules simply because a period of time has elapsed and the legislature has not seen fit to act"); *Greenburg v. Lorenz*, 9 N.Y. 2d 195, 199-200 (N.Y. 1961) ("Alteration of the law [when the legislature is silent] has been the business of the New York courts for many years").

The common law is "lawmaking and policymaking by judges . . . in principled fashion, to fit a changing society." Judith S. Kaye, *Forward: The Common Law and State Constitutional Law as Full Partners in the Protection of Individual Rights*, 23 RUTGERS L. J. 727, 729 (1992). In response to the question in *Woods,* which was whether the Court should bring "the common law of this state, on this question [of whether an infant could bring suit for injuries suffered before birth] into accord with justice[,]" the Court answered: "we should make the law conform to right." 303 N.Y. at 351. It explained that "Chief Judge Cardozo's preeminent work *The Nature of Judicial Process* captures our role best if judges have woefully misinterpreted the *mores* of their day, or if the *mores* of their day are no longer those of ours, they ought not to tie, in helpless submission, the hands of their successors." *Caceci v. Do Canto, Const. Corp.,* 72 N.Y.2d 52, 60 (N.Y. 1988) (citing Cardozo, *Nature of Judicial Process*, at 152).

Therefore, in New York, "'[w]hen the ghosts of the past stand in the path of justice clanking their mediaeval chains the proper course for the judge is to pass through them undeterred.' [The Court] act[s] in the finest common-law tradition when [it] adapt[s] and alter[s] decisional law to produce common-sense justice." *Woods,* 303 N.Y.

at 355 (*quoting United Australia, Ltd., v. Barclay's Bank, Ltd.*, (1941) A.C. 1, 29). New York courts have "not only the right, but the duty to re-examine a question where justice demands it" to "bring the law into accordance with present day standards of wisdom and justice rather than 'with some outworn and antiquated rule of the past." *Id.* (*quoting Funk v. United States*, 290 U.S. 371, 382 (1933)). *See, e.g., Gallagher v. St. Raymond's R.C. Church*, 21 N.Y.2d 554, 558 (N.Y. 1968) ("the common law of the State is not an anachronism, but is a living law which responds to the surging reality of changed conditions"); *Millington v. Southeastern Elevator Co.*, 22 N.Y.2d 498, 508 (N.Y. 1968) ("No recitation of authority is needed to indicate that this court has not been backward in overturning unsound precedent"); *Bing v. Thunig,* 2 N.Y.2d 656, 668 (N.Y. 1957) (a rule of law "out of tune with the life about us, at variance with modern day needs and with concepts of justice and fail dealing . . . [i]t should be discarded"); *Silver v. Great American Ins. Co.*, 29 N.Y. 2d 356, 363 (N.Y. 1972) ("Stare decisis does not compel us to follow blindly a court-created rule . . . once we are persuaded that reason and a right sense of justice recommend its change"); *MacPherson v. Buick Motor Company*, 217 N.Y. 382, 391 (N.Y. 1916) (legal principles "are whatever the needs of life in a developing civilization require them to be"); *Rumsey v. New York and New England Railway Co.*, 133 N.Y. 79, 85 (N.Y. 1892) ("cases ought to be examined without fear, and revised without reluctance, rather than to have the character of our law impaired, and the beauty and harmony of the system destroyed by the perpetuity of error") (*quoting* 1 *Kent's Commentaries* 477 (13th edition 1884)).

c. As Kiko is autonomous, he is a common law person entitled to the common law right to the bodily liberty that the common law writ of habeas corpus protects.

Its roots anchored into the depths of English history, the common law has been "viewed as a principle safeguard against infringement of individual rights." Judith S. Kaye, *supra*, at 730. Nonhuman animals were once believed to lack the abilities to think, believe, remember, reason, and experience emotion. Richard Sorabji, *Animal Minds & Human Morals – The Origins of the Western Debate* 1-96 (1993). From a plethora of scientific disciplines have emerged a mountain of facts that expose these ancient pre-Darwinian beliefs as anachronistic and untrue with respect to chimpanzees. See Statement of Facts, *supra*. Discussing the use of chimpanzees in biomedical research, the Institute of Medicine and National Research Council of the National Academies in 2011 noted that:

> Chimpanzees live in complex social groups characterized by considerable interindividual cooperation, altruism, deception, and cultural transmission of learned behavior (including tool use). Furthermore, laboratory research has demonstrated that chimpanzees can master the rudiments of symbolic language and numericity, that they have the capacity for empathy and self-recognition, and that they have the human-like ability to attribute mental states to themselves and others (known as the "theory of mind"). Finally, in appropriate circumstances, chimpanzees display grief and signs of depression that are reminiscent of human responses to similar situations.[15]

The affidavits attached to the Habeas Petition were submitted by some of the world's greatest working natural scientists. They confirm the extraordinarily complex, often human-like, cognitive abilities of chimpanzees. At every level, chimpanzees are today understood as beings entitled to extraordinary consideration; they have been steadily edging toward personhood.

Since Roman times, bodily liberty has been recognized as the natural condition of

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[15] *Chimpanzees in Biomedical and Behavioral Research - Assessing the Necessity* 27 (Bruce M. Altevogt, *et. al*, eds., The National Academies Press 2011).

many nonhuman animals. *J. Inst.* 2.1.12 ("natural liberty); *Dig.* 41.1.3 (Gaius, Common matters or golden things, Book 2) ("natural state of freedom"); *Dig.* 41.1.55 (Proculus, Letters, Book 2) ("natural state of freedom"); *Dig.* 41.1.44 (Ulpian, Edict, Book 19) ("natural freedom"); *Dig.* 41.2.3.14 (Paul, Edict, Book 54) ("natural state of liberty"). Two millennia before Darwin, Roman jurists "conceived that most things were destined by nature to be controlled by man. Such control expressed their natural purpose." Roscoe Pound, *An Introduction to the Philosophy of Law* 110 (1954). This legal expression of a natural linear hierarchy was part of what became known as the "Great Chain of Being," one "of the half-dozen most potent and persistent presuppositions in Western thought." *See generally*, Arthur O. Lovejoy, *The Great Chain of Being* viii (1933). "[A] perfect example of an absolutely rigid and static scheme of things," *id.* at 242, it was "explicitly and vehemently antievolutionary." Stephen Jay Gould, "Bound by the Great Chain," in *The Flamingo's Smile* 281, 282 (1985).

Consequently, Roman law allowed humans to obtain title to any nonhuman animal through "occupancy": seizure of a "thing," whether a human slave or a nonhuman animal that belonged to no one. 2 Patrick Mac Chombaich de Colquhon, *A Summary of the Roman Civil Law Illustrated by Commentaries and Parallels from the Mosaic, Canon, Mohammedan, English, and Foreign Law* 35-38 (1851).[16] *Hominum cause omne jus constituititum,* they wrote ("all law was established for men's sake"), *Dig.* 1.5.2

[16] *See, e.g.,* T. Lambert Mears, *Analysis of M. Ortolan's Institutes of Justinian, Including the History and Generalization of Roman Law* 146-147 (1876); Thomas C. Sandars, *The Institutes of Justinian* 40 (1984); Rudolph Sohm, *The Institutes – A Textbook of the History and System of Roman Private Law* 208 (James C. Ledlie, trans. 1907); Charles Donahue, Jr., *Animalia Ferae Naturae*: Rome, Bologna, Leyden, Oxford, and Queens County, N.Y. in *Studies of Roman Law in Memory of A. Arthur Schiller* 46 (Roger S. Bagnall & William V. Jarris eds. 1986); Dig. 41.1.14 (Neratius, Parchments); Dig. 41.2.3.14 (Paul, Edict book 54).

(Hermogenianus, Epitome of Law, book 1). Writing a millennium and a half before the invention of the scientific method, marinated in the erroneous Great Chain of Being, ignorant of the true capabilities of nonhuman animals, such as chimpanzees, they were wrong.[17]

The great common law expounders, Bracton, Fleta, Britton, and Blackstone merely restated the Roman law on the thinghood of nonhuman animals and their occupation. Henri de Bracton, *On the Laws and Customs of* 39-49 (Samuel E. Thorne, trans. 1968) (echoing Ulpian and Justinian, Bracton classified both nonhuman animals and human slaves as *res* subject to private ownership); 3 Fleta, Books III and IV 1-2 (H.G. Richardson & G.O. Sayles, trans. & eds. 1972); 1 Francis M. Nichols, *Britton* 214-216 (1983); 2 William Blackstone, *Commentaries on the Law of England* *390-*403 (1765-1769). *See Blades v. Higgs*, 11 Eng. Rep. 1474, 1481 (1865) ("there seems to be no difference between the Roman and common law" in obtaining a property interest in wild nonhuman animals). The famous case of *Pierson v. Post*, 3 Cai. R. 174 (N.Y. Sup. Ct. 1805), which noted that the fox had a "natural liberty," implicitly embraced the erroneous Great Chain of Being, and was little more than a disagreement on whether the majority should adopt Republican or Imperial Roman occupancy law. Half a century on, Chief Justice Taney would allude to the Great Chain of Being in the infamous Dred Scott case, when he claimed that blacks had long been "looked upon as so far below [whites] in the scale of created beings."[18]

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[17] The world laughs today at the New York jury that ignored expert scientific testimony to insist that a whale was a fish. D. Graham Burnett, *Trying Leviathan – The Nineteenth-Century Court Case That Put the Whale on Trial and Challenged the Order of Nature* (2007) (referring to the 1818 case of *Maurice v. Judd*).

[18] *Dred Scott v. Sandford,* 60 U.S. (19 How.) 393, 409 (1856).

The law of England, incorporated into New York law, was long *in favorem libertatis* ("in favor of liberty").[19] Francis Bacon, "The argument of Sir Francis Bacon, His Majesty's Solicitor General, in the Case of the Post-Nati of Scotland," in IV *The Works Of Francis Bacon, Baron of Verulam, Viscount St. Alban And Lord Chancellor* 345 (1845) (1608); 1 Sir Edward Coke, *The First Part of the Institutes of the Laws of England* sec. 193, at *124b (1628); Sir John Fortescue, *De Laudibus Legum Angliae* 105 (S.B. Chrimes, trans. 1942 [1545]); *Moore v. MacDuff*, 309 N.Y. 35, 43 (N.Y. 1955); *Whitford v. Panama R. Co.*, 23 N.Y. 465, 467-68 (N.Y. 1861) ("prima facie, a man is entitled to personal freedom, and the absence of bodily restraint . . ."); *In re Kirk*, 1 Edm. Sel. Cas. 315, 327 (N.Y. Sup. Ct. 1846) ("In a case involving personal liberty [of a fugitive slave] where the fact is left in such obscurity that it can be helped out only by intendments, the well established rule of law requires that intendment shall be in favor of the prisoner"); *Oatfield v. Waring*, 14 Johns. 188, 193 (N.Y. Sup. Ct. 1817) (on the question of a slave's manumission, "all presumptions in favor of personal liberty and freedom ought to be made"); *Fish v. Fisher*, 2 Johnson Cas. 89, 90 (N.Y. Sup. Ct. 1800) (Radcliffe, J.); *People ex. rel Caldwell v Kelly*, 33 Barb. 444, 457-58 (N.Y. Sup Ct. 1862) ("Liberty and freedom are man's natural conditions; presumptions should be in favor of this construction") (Potter, J.). New York statutes agree. N.Y. Stat. Law § 314 (McKinney) ("A statute restraining personal liberty is strictly construed"); *Carollo, People ex rel. v. Brophy*, 294 N.Y. 540, 545 (N.Y. 1945); *People v. Forbes*, 4 Parker

[19] References to the overarching value of bodily liberty may be found as early as Pericles' Funeral Oration, Thucydides, *The Complete Writings of Thucydides - The Peloponnesian War*, sec. II. 37, at 104 (1951).

Crim. Rep. 611, 612 (N.Y. Sup. Ct. 1860) (statutes must be "executed carefully in favor of the liberty of the citizen").

Accordingly, "Anglo-American law starts with the premise of thorough-going self determination." *Natanson v. Kline*, 350 P.2d 1093, 1104 (Kan. 1960) *decision clarified on denial of reh'g*, 354 P.2d 670 (Kan. 1960). *See, e.g.*, *Thor v. Superior Court*, 5 Cal. 4th 725, 736 (Cal. 1993) (en banc); *Largey v. Rothman,* 110 N.J. 204, 209 (N.J. 1988); *Fain v. Smith,* 479 So. 2d 1150 n.3 (Ala. 1985) (Jones, J., dissenting) (the case echoes Justice Cardozo's sentiment in *Schloendorff v. Soc'y of N.Y. Hospital*, 211 N.Y. 125, 129-30 (N.Y. 1914) discussed *infra*); *Scott v. Bradford*, 606 P. 2d 554, 556 (Ok. 1979). The United States Supreme Court famously held that

> No right is held more sacred, or is more carefully guarded, by the common law, than the right of every individual to the possession and control of his own person, free from all restraint or interference of others, unless by clear and unquestionable authority of law. . . . "The right to one's person may be said to be a right of complete immunity: to be let alone."

Union P. R. Co. v. Botsford, 141 U.S. 250, 251 (1891) (*quoting Cooley on Torts* 29).

The word "autonomy" derives from the Greek "autos" ("self") and "nomos" (law"). Michael Rosen, *Dignity – Its History and Meaning* 4-5 (2012). *See State v. Perry*, 610 So. 2d 746, 767 (La. 1992) ("The retributory theory of punishment presupposes that each human being possesses autonomy, a kind of rational freedom which entitles him or her to dignity and respect as a person which is morally sacred and inviolate"). Its deprivation constitutes a deprivation of dignity, both under the Fourteenth Amendment, *Lawrence v. Texas*, 539 U.S. 558, 574 (2003), and under New York common law, *People v. Rosen*, 81 N.Y. 2d 237, 245 (N.Y. 1993); *Rivers v. Katz,* 67 N.Y.2d 485, 493 (N.Y. 1986); *In re Gabr*, 39 Misc. 3d 746, 748 (N.Y. Sup. Ct. 2013), which "long recognized

the right of competent individuals to decide what happens to their bodies." *Grace Plaza of Great Neck, Inc. v. Elbaum,* 82 N.Y.2d 10, 15 (N.Y. 1993). *See, e.g., In re M.B.*, 6 N.Y.3d 437, 439 (N.Y. 2006); *Rivers,* 67 N.Y.2d at 492; *Schloendorff*, 211 N.Y. at 129-30.[20]

New York common law so powerfully values autonomy that it permits competent adults to decline life-saving treatment, though it may lead to death, *In re Westchester County Med. Ctr. ex rel. O'Connor*, 72 N.Y.2d 517, 526-28 (N.Y. 1988) ("*O'Connor*"); *Rivers,* 67 N.Y.2d. at 493; *People v. Eulo*, 63 N.Y. 2d 341, 357 (N.Y. 1984); *Matter of Storar*, 52 N.Y.2d 363, 378 (N.Y. 1981), *cert. den.*, 454 U.S. 858 (1981). This "insure[s] that the greatest possible protection is accorded his autonomy and freedom from unwanted interference with the furtherance of his own desires." *Rivers,* 67 N.Y.2d at 493. It guarantees one the right to defend oneself against criminal charges without counsel. *In re Kathleen K.*, 17 N.Y.3d 380, 385 (N.Y. 2011) ("respect for individual autonomy requires that he be allowed to go to jail under his own banner if he so desires and if he makes the choice with eyes open"). It permits a permanently incompetent, once-competent human to refuse medical treatment, if he clearly expressed his desire to refuse treatment before incompetence silenced him, and no over-riding state interest exists. *Matter of Storar,* 52 N.Y.2d at 378. Even the never-competent who will never be competent, such as the severely mentally retarded, the severely mentally ill, and the permanently comatose, possess common law autonomy that equals that of the competent. *See Rivers,* 67 N.Y.2d at 493 ("This right [to have the final say in medical treatment

[20] This common law right under New York law is co-extensive with the liberty interest protected by the Due Process Clause of the New York Constitution. *Matter of Fosmire v. Nicoleau,* 75 N.Y.2d 218, 226 (N.Y. 1990); *Rivers,* 67 N.Y.2d at 493.

decisions] extends equally to mentally ill persons who are not treated as persons of lesser status or dignity because of their illness") (*citing Superintendent of Belchertown State School v. Saikewicz,* 373 Mass. 728 (Mass. 1977)); *Delio v. Westchester County Medical Center*, 129 A.D.2d 1, 15 (N.Y. App. Div. 2d Dep't 1987) ("As noted in . . . [*Saikewicz*] the 'value of human dignity' extends to both competent and incompetent patients"); *Matter of Mark C.H.,* 28 Misc. 3d 765, 775 n.25 (N.Y. Sur. Ct. 2010) ("Like persons suffering from mental illness, courts 'must recognize the dignity and worth of such a person' with mental retardation or developmental disabilities") (*quoting Saikewicz,* 373 Mass. at 746); *In re New York Presbyterian Hosp.,* 181 Misc. 2d 142, 151 n.6 (N.Y. Sup. Ct. 1999) (*Saikewicz* "recognized that the right to refuse medical treatment 'must extend to the case of an incompetent as well as a competent patients because the value of human dignity extends to both'").[21]

Kiko's undoubted capacity for autonomy is expressly set forth in great detail in the expert Affidavits attached to the Habeas Petition and summarized in the Statement of Facts. Chimpanzees' most legally significant cognitive ability is "autonomy," which subsumes many of their other numerous complex cognitive abilities. These include, but

[21] The New York common law rule that third parties may end life-saving medical treatments of the never-competent is grounded in the biological fact that the never-competent lack the ability, have always lacked the ability, and always will lack the ability, to choose, understand, or make a reasoned decision about medical treatment. *In re M.B.,* 6 N.Y.3d at 440; *Matter of Storar*, 52 N.Y.2d at 380. The common law right to decline life-saving medical treatment is personal, not exercisable by a third person. *O'Connor*, 72 N.Y.2d at 526-28; *Eulo,* 63 N.Y.2d at 357. "[I]t is inconsistent with our fundamental commitment to the notion that no person or court should substitute its judgment as to what would be an acceptable quality of life for another." *O'Connor,* 72 N.Y. 2d. at 530. *But see id.* at 537 (Hancock, J. concurring) (criticizes *Storar* as it "ties the patient's right of self-determination and privacy solely to past expressions of subjective intent"); *id.* at 540-541 (Simons, J., dissenting) (criticizes *Storar's* refusal to adopt a substituted judgment rule). In 2002, the legislature adopted a substituted judgment rule, SCPA 1750(2).

are not limited to, their possession of an autobiographical self, episodic memory, self-determination, self-consciousness, self-knowingness, self-agency, referential and intentional communication, empathy, a working memory, language, metacognition, numerosity, and material, social, and symbolic culture, their ability to plan, engage in mental time-travel, intentional action, sequential learning, mediational learning, mental state modeling, visual perspective-taking, cross-modal perception; their ability to understand cause-and-effect and the experiences of others, to imagine, imitate, engage in deferred imitation, emulate, to innovate and to use and make tools.

In June 2013, the NIH recognized that chimpanzees possess the capacity for choice and self-determination. *See* Accepted Recommendation EA7 of The Working Group on the Use of Chimpanzees in NIH-Supported Research within the Council of Councils' Recommendation, which states: "The environmental enrichment program developed for chimpanzees must provide for relevant opportunities for *choice and self determination*." (*NIH Decision* at 10-11) (emphasis added). There the NIH noted, "A large number of commenters who responded to this topic strongly supported this recommendation as a way to ensure both the complexity of the captive environment and chimpanzees' ability to *exercise volition with respect to activity, social grouping, and other opportunities*." *Id.* (emphasis added).

Autonomous, possessed of self-determination and the ability to choose, and dozens of allied complex cognitive capacities, Kiko is entitled to common law personhood and the common law right to bodily liberty protected by the New York common law writ of habeas corpus.

2. Kiko is a common law person entitled to the common law equality right to bodily liberty that the common law writ of habeas corpus protects.

In addition to being entitled to common law personhood and the right to bodily liberty as a matter of common law liberty, Kiko is entitled to them as a matter of common law equality. Equality has always been a vital New York value, as a matter of constitutional law, statutes, and the common law.[22] Article 1, § 11 of the New York Constitution contains both an Equal Protection Clause, modeled on the Fourteenth Amendment to the United States Constitution, and an anti-discrimination clause not found in the United States Constitution. "[T]he principles expressed in those sections [of the Constitution] were hardly new." *Brown v. State*, 89 N.Y.2d 172, 188 (N.Y. 1996). As the Court of Appeals explained:

> The Equal Protection Clause of the Fourteenth Amendment had been thoroughly debated and adopted by Congress and ratified by our Legislature after the Civil War, and the concepts underlying it are older still. Indeed, cases may be found in which this Court identified a prohibition against discrimination in the Due Process Clauses of earlier State Constitutions, clauses with antecedents traced to colonial times (*see* [citation omitted] Charter of Liberties and Privileges, 1683, § 15, reprinted in 1 Lincoln, Constitutional History of New York, at 101).

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[22] Equality is an important value in Western jurisprudence. *See Vriend v. Alberta*, 1 R.C.S. 493, 536 (Canadian Supreme Court 1998) (Cory and Iacobucci, JJ) ("The concept and principle of equality is almost intuitively understood and cherished by all"); *Miller v. Minister of Defence*, HCJ 4541/94, 49(4) P.D. 94, ¶6 (Israel High Court of Justice 1995) (Strasberg-Cohen, T., J.) ("It is difficult to exaggerate the importance and stature of the principle of equality in any free democratic society"); *Israel Women's Network v. Government*, HCJ 453/94. 454/94, ¶22 (Israel High Court of Justice 1994) ("The principle of equality, which . . . 'is merely the opposite of discrimination' . . . has long been recognized in our law as one of the principles of fairness and justice which every public authority is commanded to withhold") (citation omitted); *Mabo v. Queensland* (no. 2), 175 CLR 1 F.C. 92-014, ¶29 (Australian Supreme Court 1992) ("equality before the law . . . is [an] aspiration[] of the contemporary Australian legal system"). *See also* Alexis de Toqueville, *Democracy in America*, Book II, Chapter 1, at 65 (Digireads.com Publishing 2007) ("Democratic nations are at all times fond of equality . . . for equality their passion is ardent, insatiable, incessant, invincible; they call for equality in freedom; and if they cannot obtain that, they still call for equality in slavery"); United States Declaration of Independence (July 4, 1776) ("all men are created equal")

Id. New York equality values are embedded into its common law. For example, under the common law, such private entities as common carriers, victualers, and innkeepers may not discriminate unreasonably or unjustly. *See, e.g., Hewitt v. New York, N.H. & H.R. Co.,* 284 N.Y. 117, 122 (N.Y. 1940) ("a carrier should not 'be permitted to unreasonably or unjustly discriminate against other individuals . . . where the conditions are equal. So far as reasonable, all should be treated alike'") (*quoting Root v. Long Island R. Co.*, 114 N.Y. 300, 305 (N.Y. 1889)); *New York Tel. Co. v. Siegel-Cooper Co.*, 202 N.Y. 502, 508 (N.Y. 1911) ("A common carrier . . . may not, where the circumstances and conditions are the same, unreasonably or unjustly discriminate in favor of one against the other") (*quoting Lough v. Outerbridge,* 143 N.Y. 271, 278 (N.Y. 1894)); *People v. King,* 110 N.Y. 418, 427 (1888) ("By the common law, innkeepers and common carriers are bound to furnish equal facilities to all, without discrimination, because public policy requires them so to do").

> The origins of the duty to serve and the recent direction of the case law suggest that a basic concern for individual autonomy animates the duty to serve. This concern recognizes the vulnerability of individuals to the arbitrary and unreasonable power of private entities. Realizing the importance to the individual of some goods, services, and associations, the duty to serve seeks to limit the power of the controlling entities by allowing exclusion only when based on fair and reasonable grounds.

Note, *The Antidiscrimination principle in the Common Law,* 102 HARVARD L. REV. 1993, 2001 (1989).

This principle of common law equality, which forbids discrimination founded on unreasonable means or unjust ends, has been extended to prohibit racial discrimination. *Odom v. E. Ave. Corp.*, 34 N.Y.S.2d 312 (N.Y. Sup. Ct. 1942) *aff'd*, 37 N.Y.S.2d 491 (N.Y. App. Div. 4th Dept. 1942) (blacks may sue restaurants that refused them service).

"New York has led in the proclamation and extension of its liberal policy favoring equality and condemning [racial] discrimination." *In re Young,* 211 N.Y.S 2d 621, 626 (N.Y. Sup. Ct. 1961). The common law reaches the conduct of private organizations that arbitrarily refuse admission to an applicant. *Ascherman v. St. Francis Memorial Hospital,* 45 Cal. App. 3d 507, 511 (Cal. App. 1st Dist. 1975); *Pinsker v. Pac. Coast Soc. of Orthodontists,* 12 Cal. 3d 541, 548 (Cal. 1974) (en banc). This principle was embraced as public policy by New York statute. *Fritz v. Huntington Hospital,* 39 N.Y.2d 339, 344 (N.Y. 1976) (arbitrary rejection of a membership application prohibits rejection pursuant to an unfair procedure as well as an improper reason).

The Petitioners' affidavits attached to the Habeas Petition and summarized in the Statement of Facts demonstrate that genetically, physiologically, and psychologically, Kiko's interest in exercising his autonomy, choice, and self-determination is as fundamental to him as it is to a human being. Recall the United States Supreme Court's admonition that "[n]o right is held more sacred, or is more carefully guarded, by *the common law*, than the right of every individual to the possession and control of his own person[.]" *Botsford,* 141 U.S. at 251 (emphasis added). On this ground alone, this Court must hold that, as a matter of New York common law equality, Kiko is entitled to bodily liberty, and his right is protected by the common law writ of habeas corpus.

However, New York equality is not merely a product of its constitutions, statutes, and common law operating independently. Two decades ago, Chief Justice Kaye confirmed that the two-way street between common law decision-making and constitutional decision-making had resulted in a "common law decision making infused

with constitutional values." Judith S. Kaye, *supra*, at 747.[23] In harmony with the common law equality principles that forbid private discrimination founded on either unreasonable means or unjust ends, the New York common law of equality embraces, at minimum, its sister fundamental constitutional equality value - embedded within the New York and the United States Constitutions - that prohibits discrimination based on irrational means or illegitimate ends.[24] *Romer v. Evans*, 517 U.S. 620, 633 (1996) ("Equal protection of the laws is not achieved through indiscriminate imposition of inequalities") (*quoting Sweatt v. Painter,* 339 U.S. 629, 635 (1950); *Shelley v. Kraemer*, 334 U.S. 1, 22 (1948)).

Common law equality decision-making differs from constitutional equal protection decision-making in that it does not involve judicial review of a governmental classification. It has nothing to do with a constitutional "respect for the separation of powers." *Cleburne v. Cleburne Living Center, Inc.*, 473 U.S. 432, 441-42 (1985). Instead it applies constitutional equal protection values to an evolving common law. The outcomes of similar common law and constitutional cases may therefore be dramatically different.

For example, in *Hernandez v. Robles*, 7 N.Y.3d 338 (N.Y. 2006), the Court of Appeals affirmed the constitutionality of New York's Domestic Relations Law that limited marriage to opposite-sex couples. "*The critical question [was] whether a rational legislature could decide that these benefits should be given to opposite-sex couples, but not same-sex couples.*" *Id.* at 358 (emphasis added). The Court held that the legislature

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[23] Among Chief Justices Kaye's examples was the doctrine of fairness and equality as applied to the duty of private persons, such as innkeepers, victuallers, and common carriers, to serve the public on a nondiscriminatory basis. *Id.* at 748.

[24] The New York Equal Protection Clause "is no broader in coverage than the federal provision." *Under 21, Catholic Home Bur. for Dependent Children v. City of New York*, 65 N.Y.2d 344, 360 n.6 (1985).

could rationally conclude that same-sex relationships are more causal or temporary, to the detriment of children, and rationally assume children do best with a mother and father at home. *Id.* at 359, 360. In the face of a dissent that concluded, "I am confident that future generations will look back on today's decision as an unfortunate misstep," *id.* at 396 (Kaye, C.J., dissenting), the majority "emphasize[d] . . . we are deciding only this constitutional question. *It is not for us to decide whether same-sex marriage is right or wrong.*" *Id.* at 366 (emphasis added). *See People v. Reilly,* 381 N.Y.S.2d 732, 739-40 (N.Y. County Ct. 1976) (in engaging in constitutional review, "[t]he question of the wisdom or the appropriateness in adopting a classification is a matter of no concern to the courts.").

In contrast, the wisdom and appropriateness of adopting a classification is a matter of great concern to a common law court. A common law court *should* decide what is right and wrong. Its job is precisely to do the "right thing." This Court *should* recognize Kiko's common law personhood. This Court *should* determine that any classification of a chimpanzee as a "legal thing" invokes an illegitimate end. This Court *should* decide Kiko has a common law right to bodily liberty sufficient to entitle him to a writ of habeas corpus and a chance to live the rest of his life in a legitimate sanctuary designated by NAPSA, where he will be surrounded by other chimpanzees with whom he will live in society, have regular and routine access to the outdoors, receive appropriate veterinary treatment, be able to climb high and at will, and be able to live the autonomous, self-determining life of which he is capable and for which he longs.

Kiko's common law classification as a "legal thing," unable to possess any legal right, including the right to bodily liberty that the writ of habeas corpus is intended to

protect, rests upon an illegitimate end. *Affronti v. Crosson*, 95 N.Y.2d 713, 719 (N.Y. 2001), *cert. denied,* 534 U.S. 826 (2001). *See, e.g., Goodridge v. Department of Public Health*, 440 Mass. 309, 330 (Mass. 2003) (*quoting English v. New England Medical Center*, 405 Mass. 423, 429 (Mass. 1989); *Cleburne,* 473 U.S. at 452 (Stevens, J., concurring)).

> This theory of [Fourteenth Amendment Equal Protection] rationality as governing the relation between means and end assumes that all legislation must have a legitimate public purpose or set of purposes based on some conception of the general good. Without such a requirement of legitimate public purpose it would seem useless to demand even the most perfect congruence between means and ends, for each law would supply its own indisputable - and indeed tautological fit: if the means chosen burdens one group and benefits others, then the means perfectly fits the end of burdening just those whom the law disadvantage and benefitting just those it assists.

Laurence H. Tribe, *American Constitutional Law* 1440 (second ed. 1988).

In *Romer,* the United States Supreme Court struck down the so-called "Amendment 2," because its purpose of repealing all existing statutes, regulations, ordinances, and policies of state and local entities that prohibited discrimination based upon sexual orientation, was illegitimate. 517 U.S. at 626 (*quoting Evans v. Romer*, 854 P. 2d 1270 (Colo. 1993)). It violated federal equal protection because *"[i]t is at once too narrow and too broad. It identifies persons by a single trait and then denies them protection across the board."* *Id.* at 633 (emphasis added). This statute was "simply so obviously and fundamentally inequitable, arbitrary, and oppressive that it literally violated *basic equal protection values*." *Equal. Found. of Greater Cincinnati, Inc. v. City of Cincinnati*, 128 F.3d 289, 297 (6th Cir. 1997), *cert. denied*, 525 U.S. 943 (1998) (emphasis added). *See Mason v. Granholm,* 2007 WL 201008 (E.D. Mich. 2007) (noting that *Romer* found that Colorado's Amendment 2 was "at once too narrow and too broad.

It identifies persons by a single trait and then denies them protection across the board," the Court struck down an amendment to the Michigan Civil Rights Act that prevented prisoners from suing for a violation of their civil rights while imprisoned as violating federal equal protection); *Goodridge,* 440 Mass. at 330 (same-sex marriage ban impermissibly "identifies persons by a single trait and then denies them protection across the board").

As it would be a tautology for the Federal Equal Protection Clause to fail to demand that a legitimate public purpose or set of purposes based on some conception of the general good be the legislative end, it would be a tautology to determine whether class members are similarly situated for all purposes. The true test is "whether they are similarly situated *for the purposes of the law challenged.*" *Kerrigan v. Commissioner of Public Health*, 289 Conn. 135, 158 (Conn. 2008) (*quoting Stuart v. Commissioner of Correction,* 266 Conn. 596, 601-602 (Conn. 2003)) (emphasis added).

Denying Kiko his common law right to bodily liberty solely because he is a chimpanzee is also a tautology. "'[S]imilarly situated' [cannot] mean simply 'similar in the possession of the classifying trait.' All members of any class are similarly situated in this respect and consequently, any classification whatsoever would be reasonable by this test." *Varnum v. O'Brien*, 763 N.W. 2d 862, 882-83 (Iowa 2009) (citations omitted). The "equal protection guarantee requires that laws treat all those who are similarly situated with respect to the purposes of law alike." *Id.* In *Goodridge,* the Supreme Judicial Court of Massachusetts swept aside the argument that the legislature could refuse gays the right to marry because the purpose of marriage is procreation, which they could not accomplish. 440 Mass. at 330. This argument "singles out the one unbridgeable

difference between same-sex and opposite sex couples, and transforms that difference into the essence of legal marriage." *Id.* at 333. *See Miller*, HCJ 4541/94, ¶6 (Dorner, J.) ("in the absence of [criteria determining whether a difference is a relevant difference], there is a danger – which has frequently been realized – that the criteria applied in each case will reflect the degrading stereotypes which the prohibition of discrimination was originally intended to prevent").

No one doubts that, if Kiko were human, this Court would instantly issue a writ of habeas corpus. There can equally be no doubt that Kiko is imprisoned for a single reason: despite his capacities for autonomy, self-determination, self-awareness, and dozens of allied and connected extraordinarily complex cognitive abilities, he is a chimpanzee. Possessing that "single trait," he is "denie[d] . . . protection across the board." *Romer*, 517 U.S. at 633.

Homo sapiens membership has been laudably designated a sufficient condition for legal personhood. Even the permanently comatose and anencephalic of our species humans are entitled to fundamental legal rights under international and American law. *See* Steven M. Wise, *Hardly a revolution – The eligibility of nonhuman animals to dignity rights in a liberal democracy*, 22 VERMONT L. REV. 793, 846-68 (1998). However, "the thesis that humans should be ascribed rights simply for being human has received practically no support from philosophers." Daniel Wikler, "Concepts of Personhood: A Philosophical Perspective," in *Defining Human Life: Medical, Legal, and Ethical Implications* 13, 19 (Margery W. Shaw and A. Edward Doudera, eds. 1983).[25]

[25] *See* L.W. Sumner, *The Moral Foundation of Rights* 206 (1987) ("it is quite inconceivable that the extension of any right should coincide exactly with the boundary of our species. It is thus quite inconceivable that we have any rights simply because we

The sole argument for discriminating against chimpanzees *because they are chimpanzees* to the extent of permanently disqualifying them from legal personhood has been put forward by Judge Richard A. Posner. Writing with his usual candor and flair, he has argued that the invidious discrimination against, and enslavement of, any nonhuman descends from

> a moral intuition deeper than any reason that could be given for it and impervious to any reason that you or anyone could give against it. Membership in the human species is not a "morally irrelevant fact," as the race and sex of human beings has come to seem. If the moral irrelevance of humanity is what philosophy teaches, and so we have to choose between philosophy and the intuition that says that membership in the human species is morally relevant, then it is philosophy that will have to go.[26]

But, as Judge Posner's nod toward outmoded racial and gender discrimination implicitly acknowledges, when "philosophy goes," invidious discrimination and slavery enter. Who can read the famous case of *State v. Mann*, 13 N.C. 263, 265-66 (N.C. 1829) without experiencing moral revulsion, anger, and disgust at the words of the majority who overturned the conviction of a white man for beating his slave nearly to death:

> The end [of slavery] is the profit of the master, his security and the public safety; the subject, one doomed in his own person, and his posterity, to

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are human"); Christina Hoff, "Immoral and moral uses of animals," 302(2) *New England Journal of Medicine* 115, 115 (Jan. 19, 1980) ("It is sometimes asserted that 'just being human' is a sufficient basis for a protected moral status, that sheer membership in the species confers exclusive moral rights . . . The principle appears evident to us because it is embodied in the attitudes and institutions of most civilized communities. Although this accounts for its intuitive appeal, it is hardly an adequate reason to accept it. Without further argument the humanistic principle is arbitrary. What must be adduced is an acceptable criterion for awarding special rights. But when we proffer a criterion based, on say the capacity to reason or to suffer, it is clearly inadequate either because it is satisfied by some but not all members of the species *Homo sapiens*, or because it is satisfied by them all – and many animals as well").

[26]Richard A. Posner, "Animal Rights," *Slate*, http://www.slate.com/articles/news_and_politics/dialogues/features/2001/animal_rights/_3.html (June 12, 2011) (last visited on August 24, 2013).

> live without knowledge, and without the capacity to make any thing his own, and to toil that another may reap the fruits. What moral considerations shall be addressed to such a being, to convince him what, it is impossible but that the most stupid must feel and know can never be true--that he is thus to labour upon a principle of natural duty, or for the sake of his own personal happiness, such services can only be expected from one who has no will of his own; who surrenders his will in implicit obedience to that of another. Such obedience is the consequence only of uncontrolled authority over the body. There is nothing else which can operate to produce the effect. The power of the master must be absolute, to render the submission of the slave perfect.

"[M]oral intuition deeper than any reason that could be given for it and impervious to any reason that you or anyone could give against it" has been odiously used as a sword to cut down the legitimate claims of blacks, Chinese, women, and others. *Dred Scott,* 60 U.S. at 407-09 (blacks were of "an inferior order" and "far below whites in the scale of created beings"); *Mayor and Council of Columbus v. Howard*, 6 Ga. 213, 220 (Ga. 1849) (black slaves "need a higher degree of intelligence than their own, not only to direct their labor, but likewise to protect them from the consequences of their own improvidence"); *People v. Hall,* 4 Cal. 399, 405 (Cal. 1854) (Chinese, "whom nature has marked as inferior, and who are incapable of progress or intellectual development beyond a certain point," could not testify against whites); *In re Goodell*, 39 Wis. 232, 240 (Wis. 1875) (woman was unfit "by nature" to practice law).

The sole purpose in classifying Kiko as a "legal thing" is the illegitimate, odious one of enslaving him. Speaking of Jerom, a young chimpanzee infected with an HIV virus that killed him, Professor Laurence H. Tribe observed, "Clearly, Jerom was enslaved." Laurence H. Tribe, *Ten Lessons Our Constitutional Experience Can Teach Us About the Puzzle of Animal Rights: The Work of Steven M. Wise*, 7 ANIMAL L. 1, 7 (2001). *See also Nairn,* A.C. 147 at 166. Clearly, Kiko is enslaved.

But New York courts have loathed slavery for over one hundred and seventy-five years. In what has been called "one of the most extreme examples of hostility to slavery in Northern courts," Paul Finkleman, *Slavery in the Courtroom* 57 (1985), the Court of Appeals recalled the *Somerset* holding "that a state of slavery could not exist except by force of positive law . . . and [so] it became impossible to continue the imprisonment of [Somerset]." *Lemmon,* 20 N.Y. at 605. In language as blunt as Lord Mansfield's, Justice Wright explained why: human slavery

> is repugnant to natural justice and right, has no support in any principle of international law and is antagonistic to the genius and spirit of republican government. Besides liberty is the natural condition of men, and is world-wide: whilst slavery is local and beginning in physical force, can only be supported by positive law. "Slavery," says Montesquieu "not only violates the laws of nature and of civil society; it also wounds the best forms of government; . . . [Negro slavery] never had any foundation in the law of nature, and was not recognized by the common law . . . slavery originates in the predominance of physical force, and is continued by the mere predominance of social force, the subject knowing or obedient to no law but the will of the master . . . . a status which the law of nations treats as resting on force against right . . .

Id. at 617-18, 631. *See also Jack v. Martin,* 14 Wend. 507, 533 (N.Y. 1835) (Sen. Bishop) ("Slavery is abhorred in all nations where the light of civilization and refinement has penetrated, as repugnant to every principle of justice and humanity, and deserving the condemnation of God and man").

The NhRP agrees that humans who have never been sentient nor conscious nor possessed of a brain *should* have basic legal rights. But *if* humans bereft of autonomy, self-determination, sentience, consciousness, even a brain, are entitled to personhood and legal rights, *then* this Court must either recognize Kiko's just equality claim to bodily liberty or reject equality entirely. Abraham Lincoln understood that the act of extending

equality protects it: "[i]n *giving* freedom to the slave, we *assure* freedom to the free, honorable alike in what we give, and what we preserve." 5 *Collected Works of Abraham Lincoln* 537 (Roy P. Basler, ed. 1953) (annual message to Congress of December 1, 1862) (emphasis in the original). The act of denying equality in order to enslave, based on a single trait, jeopardizes the equality of everyone.

Judge Posner's rejection of even the *possibility* of a chimpanzee's legal right is not merely invidious, it is dangerous because, if he is wrong – and history says he is - he commits a severe error of *exclusion*, that derives entirely from an irrational bias that strips its victims of every possible legal right, including their liberty and lives. In contrast, if Lord Mansfield's and Justice Wright's condemnations of human slavery were wrong, at worst they committed minor errors of *inclusion* that erroneously granted a right to those who did not deserve it.

Kiko faces an ancient discrimination created and sustained by nothing more than Judge Posner's eloquently-conceived, but morally and legally flawed, "moral intuition." Courts "kn[o]w times can blind us to certain truths and later generations can see that laws once thought necessary and proper in fact serve only to oppress." *Lawrence*, 539 U.S. at 579. The purpose of equal protection review is "to protect constitutional rights of individuals from legislative enactments that have denied those rights, even when the rights have not yet been broadly accepted, were at one time unimagined, or challenge a deeply ingrained practice or law viewed as impervious to the passage of time." *Varnum,* 763 N.W. 2d at 876. "It is revolting to have no better reason for a rule of law than that so it was laid down in the time of Henry IV." *People v. Liberta,* 64 N.Y.2d 152, 167 (N.Y.

1984) (*quoting* Oliver Wendell Holmes, Jr., *The path of the law*, 10 HARV. L. REV. 457, 469 (1897)). Equal protection

> can only be defined by the standards of each generation. *See* Cass R. Sunstein, *Sexual Orientation and the Constitution: A Note on the Relationship Between Due Process and Equal Protection*, 55 U. Chi. L.Rev. 1161, 1163 (1988) ("[T]he Equal Protection Clause looks forward, serving to invalidate practices that were widespread at the time of its ratification and that were expected to endure."). The process of defining equal protection . . . begins by classifying people into groups. A classification persists until a new understanding of equal protection is achieved. The point in time when the standard of equal protection finally takes a new form is a product of the conviction of one, or many, individuals that a particular grouping results in inequality and the ability of the judicial system to perform its constitutional role free from the influences that tend to make society's understanding of equal protection resistant to change.

Varnum, 763 N.W. 2d at 877-78.

Finally, it is important to emphasize what the NhRP is *not* seeking. The NhRP claims only Kiko's common law right to bodily liberty that the common law writ of habeas corpus protects. Once deemed a common law "person" who possesses the fundamental right to bodily liberty sufficient to trigger the protection of the common law writ of habeas corpus, what, if any, other common law rights Kiko possesses will differ along the same three axes as do the legal rights of humans.

First, Kiko might possess *fewer* legal rights than others. A severely mentally limited human may not be able to participate in the political process, but would still have the right freely to move about. Similarly, Kiko cannot participate in the political process, but may have the right to move about.

Second, Kiko might possess *narrower* legal rights. A severely mentally limited human might not have the right to move about freely in the world at large, but would have the right to move within the confines of her home. Similarly, Kiko may not move

freely throughout the country. But he can move within the confines of the sanctuary in which he will be placed by NAPSA, as he would have had the right to move freely about in his natural habitat.

Third, Kiko might possess only partial elements of a complex Hohfeldian right.[27] A profoundly mentally limited human may possess a claim-right to bodily integrity, but lack the power-right to waive it, as in an inability to consent to a risky medical procedure or the withdrawal of life-saving medical treatment. Similarly, Kiko may possess an immunity-right of bodily liberty, but lack the power-right to enforce it. *See* Steven M. Wise, *Hardly a revolution – The eligibility of nonhuman animals to dignity rights in a liberal democracy*, 22 VERMONT L. REV. 793, 868-73, 908-09 (1998).

In *Byrn*, the Court of Appeals noted that human fetuses are considered "persons" for some purposes in New York, including inheritance, devolution of property, and wrongful death, while not being "persons in the law in the whole sense," such as being subject to abortion. 31 N.Y.2d at 200. Courts across the United States commonly hold that an entity may be a legal person not "in the whole sense," but for some purposes. *See, e.g., Summerfield v. Superior Court,* 698 P.2d 712, 723 (Ariz. 1985) (en banc); *O'Grady v. Brown*, 654 S.W.2d 904, 909 (Mo. 1983) (en banc). Fetuses have been classified as "persons" within the meaning of the Due Process Clause of a state constitution, *Mallison*

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[27] Wesley Hohfeld, whose analysis of legal rights remains "the standard model," emphasized that a legal right must involve two legal persons, and identified four types of legal rights, liberties (Isaiah Berlin would famously identify two prominent liberty-rights, negative, or "freedom from" and positive or "freedom to"), Isaiah Berlin, "Two concepts of liberty," in *Four Essays on Liberty* 121-122 (1969), claims (exemplified by contracts), immunities (such as the Thirteenth Amendment to the United States Constitution's prohibition of slavery), and powers (the power to sue being the most important), along with their correlate no-rights, duties, disabilities, and liabilities. *See* Wesley Newcomb Hohfeld, *Fundamental Legal Conceptions as Applied in Judicial Reasoning* (Walter Wheeler Cook ed., 1919).

v. Pomeroy, 291 P.2d 225, 228 (Ore. 1955), but not of the United States Constitution. *Roe*, 410 U.S. at 158. They may be "persons" within the meaning of a state's wrongful death statute, *Stidam v. Ashmore*, 167 N.E.2d 106 (Ohio Ct. App. 1959), but not within the meaning of that state's vehicular homicide statute, *State v. Dickinson*, 275 N.E.2d 599, 602 (Ohio 1971). They may be persons in equity, *Wallis v. Hodson*, 26 Eng. Rep. 472, 473 (Ch. 1740), but not under the common law. *Dietrich v. Inhabitants of Northampton*, 138 Mass. 14 (Mass. 1884).

V. CONCLUSION

When a 2005 case demanding a writ of habeas corpus pursuant to the Brazilian Civil Procedure Code was filed on behalf of a confined chimpanzee named Suica in Salvador, Brazil, the trial judge noted the matter "is worthy of discussion, as this is a highly complex issue requiring an in-depth examination of 'pros and cons.'" *See In Favor of Suica*, annexed to the Habeas Petition as an attachment to the affidavit of Steven M. Wise. Because Suica died on the eve of the judge's decision, he was required by statute to dismiss the case.

Kiko is alive and this Court has the opportunity to examine the matter that is so worthy of discussion. Kiko is possessed of autonomy, self-determination, self-awareness, and the ability to choose how to live his life, as well as dozens of complex cognitive abilities that comprise and support his autonomy. He is entitled to legal personhood under EPTL § 7-8.1 and, as a matter of common law liberty and equality, which entitle him to a writ of habeas corpus. He is further entitled to his bodily liberty, and immediate discharge from his decades-long imprisonment.

This is a matter of life or death for Kiko. Nearly half the chimpanzees in New

York State have died over the last eight months. It is fundamentally a matter of fairness, justice, liberty, equality, and humanity. Professor Osvath made it clear that every day of Kiko's perpetual imprisonment is hellish, that as chimpanzees "have a concept of their personal past and future and therefore suffer the pain of not being able to fulfill one's goals or move around as one wants; like humans they experience the pain of anticipating a never-ending situation." (Osvath Aff. at ¶16).

Kiko cannot be released to Africa. But he can be released from his imprisonment in New York. This Court should order him discharged from the Respondents' control and evaluated by NAPSA forthwith, then delivered into the permanent care of one of their extraordinary sanctuaries forthwith, there to spend the rest of his life living like a chimpanzee, amongst chimpanzee friends, climbing, playing, socializing, feeling the sun, and seeing the sky.

Dated: December 2, 2013

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