

犬との共生

犬との共生の度合いは、その国の文明度を表すといっても過言ではない。「世界一」の国はイギリスであることに誰も異論はないであろう。一方、日本は？おそらく先進文明国のなかで、かなり低い順位に位置付けられる可能性がある。最近の調査（麻布大学）で、犬を不満なく飼育している家庭は、僅かに20%であった。何が足りないのか？徹底的に明らかにし、真の共生国家を目指したい。

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「犬との共生」

太田光明氏（麻布大学 介在動物学研究室 教授）

《演者》

「人の健康と動物たち」

内山秀彦氏（東京農業大学 バイオセラピー学科助教／ヒトと動物の関係学会理事）

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林良博氏（東京農業大学 農学部教授／農林水産省 生物多様性戦略検討会 座長）

「こころのワクチン」

村田香織氏（もみの木動物病院（神戸市） 獣医師）

「ペットから学んだ異文化」

石山恒氏（マースジャパンリミテッド 副社長）

Workshop IX

ワークショップ IX

“A Good Relationship with Dogs”

The levels of relationship between human beings and dogs reflect the degrees of civilization of the country. The best country in the world must be the United Kingdom. How about Japan? Japan likely ranks relatively low among the developed nations concerning this relationship. According to a survey by Azabu University, only 20% of families keeping dogs are satisfied with the relationship between family members and their dogs. What is wrong? We discuss every issue about keeping dogs.

Organizer: Japan Kennel Club

Supporting Company: Mars Japan Limited

MC / Chairperson:

“Zoonosis: Diseases that transfer between pets and humans in daily life”
Takemi NAGAMURA, President, Japan Kennel Club

Workshop Speaker Abstracts

“The Partnership between People and Dogs in Japan”
Mitsuaki OTA, PhD and DVM, Professor, Azabu University

Speakers:

“The Effects of Animals on Human Health”
Hidehiko UCHIYAMA, Assistant Professor, Tokyo University of Agriculture; Board Director, Society for the Study of Human Animal Relations (HARs)

“The Animal Welfare Act and Dog Welfare”
Yoshihiro HAYASHI, Veterinarian, Professor, Tokyo University of Agriculture; Chairperson, MAFF National Committee for Biodiversity Strategy

“A Mind Vaccine”
Kaori MURATA, Veterinarian, Mominoki Animal Clinic, Kobe City

“Learning About Other Cultures from Pets”
Hisashi ISHIYAMA, Vice President, Mars Japan Limited

社団法人 ジャパンケネルクラブ 理事長・永村 武美
Takemi NAGAMURA, President,
Japan Kennel Club



社団法人ジャパンケネルクラブは、犬質の向上、犬の飼育の拡大・定着及び動物愛護精神の高揚を目的に設立された社団法人であり、この目的を達成するため、純粋犬種の血統登録や展覧会・競技会等を実施する国内最大の愛犬家組織であります。また、FCI(国際畜犬連盟)の加盟団体で、犬を通じた国際交流と連携にも力を注いでおります。FCIが公認している342犬種の繁殖指針とするために犬種標準(スタンダード)が定められており、これに基づいた犬の繁殖評価をする場として、展覧会や競技会を全国各地で開催しております。

昨今、一部の犬種のスタンダードが動物虐待として批判を浴びており、その再検証が必要であると考えられています。即ち、犬種の改良と繁殖のプロフェッショナルというべき会員を多く抱える当団体としては、健全で優良な犬を全国の愛犬家に供給する責務があるからであります。

The Japan Kennel Club (JKC) is an incorporated association that was founded for the purposes of improving the quality of dogs, establishing and expanding dog breeding procedures, and enhancing the spirit of animal welfare. In addition to being Japan's largest organization of dog lovers, the JKC functions as the country's primary registry body for purebred dog pedigrees and as an organizer of exhibitions and competitions, and as a member organization of the Fédération Cynologique Internationale (FCI), it also focuses its energies on promoting international exchanges and cooperation through dogs. The FCI recognizes 342 breeds of dog, each of which has been given its own standard that can be used as a breeding guideline for the breed in question. Moreover, the JKC stages exhibitions and competitions throughout the nation. These events serve as opportunities to conduct dog breed evaluations based on these standards.

Recently, the standards governing some dog breeds have been drawing criticism as a form of animal abuse. The need for further verification of these standards is therefore now

今回、人と犬の共生のあり方をテーマとして行われるワークショップを私共が主催させていただくことは、誠に時宜を得たものであると考えております。

スピーカーとしては、内山先生、林先生及び村田先生、石山様という各分野の第一人者をお招きしております。全国の多くの愛犬家のご参加を心からお待ち申し上げて、私の御挨拶と致します。

being considered. As an organization with many members who are professionals in the improvement and breeding of different dog breeds, we have an obligation to provide dog-lovers throughout the nation with healthy and high-quality dogs.

I believe the present conference is a very timely occasion for us to be holding a workshop on the theme of improved co-existence between people and dogs and better man to animal relationships.

As speakers, we have invited Professor Uchiyama, Professor Hayashi, Dr. Murata and Mr. Ishiyama each of whom is a leading authority in their respective field. I would like to conclude my message by voicing the sincere hope that many dog lovers throughout the nation will participate in this conference.

犬との共生

The Partnership between People and Dogs in Japan

麻布大学 介在動物学研究室 教授・太田 光明

Mitsuaki OTA, PhD and DVM, Professor, Azabu University



犬の祖先オオカミと“人類”との付き合いは、30万年以上も前からと考えられています。いわゆる旧人、ネアンデルタール人の時代です。現代の人類の祖先クロマニヨン人の誕生より前から、“人類”は犬の祖先と何らかの関係を築いていたこととなります。そして、進化を続け、今から15,000年ほど前に“犬の誕生”に至ったのです。オオカミの時代から、狩猟を手伝い、そして人を守ってきたものと思われまます。その進化のプロセスを単純に考えれば、今日のコンパニオンアニマル“家族の一員”としての一つのゴールは自明の理かもしれません。

一方で、人々は、犬との新たな共生を真面目に考え始めました。例えば、「動物の愛護及び管理に関する法律」(動物愛護法)の改正の歴史は、その好例です。1973年の「動物の保護及び管理に関する法律」(動管法)では、動物は“モノ”でした。しかし、1999年の改正法(名称は「動管法」を「動物愛護法」に変更)では、“動物が命あ

るものであることにかんがみ、何人も、動物をみだりに殺し、傷つけ、又は苦しめることのないようにするのみでなく、人と動物の共生に配慮しつつ、その習性を考慮して適正に取り扱うようにしなければならない”と謳っている。これは、明らかに“欧米並み”である。しかし、まだ足りないところがある。

イギリスでは、“犬を飼うとき、必ず家族で Dogs Schoolに通う”、欧米諸国では、“犬はアニマルアシストセラピーに頻繁に用いられる”、そして“犬の母子分離は、生後8週を経ってからである”。なぜ、わが国では、そうならないのでしょうか？ひょっとしたら、日本は真の“島国”かもしれません。

このワークショップでは、“何が足りないのか”を考え、真の文明国家に相応しい“犬との共生”を構築する第一歩としたい。

The relationship between human beings and wolves began more than 300 thousand years ago when Neanderthals were living on Earth. We already had a certain relationship with the wolf, ancestor of our modern-day dogs, even before the first early-modern humans, the Cro-Magnon, appeared. The animal we can define as “a dog” was produced about 15 thousand years ago and, since then, the dog has worked for humans, helping them hunt and guarding them from enemies. When we consider the path of dog evolution, it may be axiomatic that “a dog” should become a family member, as it has become in present times.

For the better future, on the other hand, humans would start to think about new partnership with dogs. For instance, the Act on Protection and Management of Animals, which was established in 1973, was revised twice, in 1999 and 2005. In 1973, under the law all animals were regarded as “things”, not “lives”. However, in 1999 the fundamental principle of the revised Act (renamed to the Act on Welfare and Management of Animals) was explicitly stated as follows: “Recognizing that animals are living beings, no person shall kill, injure, or inflict cruelty on animals unnecessarily, and

when keeping animals, every person shall fully understand their habits and give them proper care so that people and animals can live together.” This Act could really be compared to those of Western countries. However, there are still many points that are inadequate.

In the United Kingdom almost every family with a new dog attend ‘Dog School’ to learn the proper way to look after their animal. In the Western countries, dogs have come to play an important role in supporting human health, both physical and mental, an example being ‘animal-assisted therapy’. In addition, most of the ‘civilized’ countries follow a rule that “separating a puppy from its mother is prohibited before 8 weeks following birth”. This set of conditions is very different to Japan. So, as a people, we must ask ourselves “Why is this so?”.

In this Workshop IX we must take our first steps to improve the situation in Japan, and build a true partnership between humans and dogs.

人の健康と動物たち

The Effects of Animals on Human Health

東京農業大学 バイオセラピー学科 助教／ヒトと動物の関係学会 理事・内山 秀彦
Hidehiko UCHIYAMA, Assistant Professor, Tokyo University of Agriculture;
Board Director, Society for the Study of Human Animal Relations (HARs)



1970年代後半から、欧米諸国では、動物介在活動・療法(AAA/AAT)に関わるさまざまな研究が展開された。なかでも、FRIEDMANNら(1980)は、心疾患で入院した患者の生存率に関して、ペットの飼い主の方が、飼い主でない人よりも退院1年後の生存率が高いことを報告した。これは同時に、ペットとの生活はストレスの軽減に明らかに良いことを示したものである(ANDERSON et al. 1992)。また、Lynette A. HART(1997)は、高齢者には、社交の促進、アイデンティティの確立、ストレスの軽減、そして動機づけをもたらすことから、ペット飼育を勧めている。また、イヌを飼うことによって、病院への通院回数が明らかに減少したとの画期的な報告もある(SIEGEL 1990)。これはストレスの多い生活をおくるイヌを飼っていない老人(70歳以上)と同様な状況のイヌを飼っている老人を比べたとき、1年間に病院に通う回数が明らかに違うことを示したもので、アメリカの権威ある研究機関National Institute of Healthもその効果を公式に認めている。

Since the 1970s, some very interesting research developed in the field of Animal-assisted Activities and Therapy (AAA/AAT) in western countries. For example, in 1980 Friedmann, et al. demonstrated that human patients suffering from heart disease survived longer (by one more year) if they had a dog companion compared to patients without dogs. This means that living with a dog reduces stress in people on a daily basis. In 1997 Hart recommended that elderly people keep pets in order to better develop their social contact, identity, and motivation for life. In 1990, Siegel reported distinct evidence that elderly people over 70 years old who keep a dog tend to make fewer visits to the hospital. These findings have led to the US National Institute of Health allowing medical doctors to prescribe pet-keeping as an alternative to drugs.

The effects of animals on human physical and mental health have been known since the 1950s and from the Olympic achievements of Liz Hartel from Denmark. Despite suffering from polio since 1943 she won a medal at the 1952 Helsinki Olympic Games in the dressage event. Ever since, the idea of rehabilitation through horse riding successfully made its way around the community of therapists. At the 12th Conference

このように動物がもたらす人の健康への良い効果は、ウマでは、“障害者乗馬”として1950年代より広く知られている。2010年7月、ストックホルムで開催された「人と動物の関係に関する国際会議」(IAHAIO Conference)での報告で、ドイツでは約17%の病院で、一般診療としてAATを行っているとのことであった。さらに90%以上の医療従事者がAATの効果を確認していた。わが国との差は歴然である。

わが国でAATが普及しない理由は何なのであろうか？ 1) 国民性の違い、2) 医療従事者がAATの効果を知る機会がない、3) 医学と動物学をコーディネートする専門家がいらない、など多々あろう。しかし、もっとも重要な要因は“科学的な検証がまったく不十分である”ことである。James A. SERPELL教授は、「欧米諸国でも決して普及しているわけではない。その要因は“なぜ効果があるかなど科学的な検証が不十分なためだ”」と述べている。

of IAHAIO held in Stockholm, July 2010, it was reported that about 17% of hospitals in Germany are using AAT as medical treatment and that more than 90% of medical staffs are convinced that AAT has useful effects. However, there has been an alarming difference in acceptance between western countries and Japan.

So why has AAT in Japan never developed? There are probably several reasons including a difference in national traits, the lack of opportunities for medical practitioners to witness the real effects of AAT, and absence of professional individuals that coordinate in both medical and animal fields. However, the most likely reason is that there has been no scientific evidence for the effects of animals on human health. So at this symposium I intend to discuss the mechanisms behind AAT.

動物愛護法とイヌの福祉

The Animal Welfare Act and Dog Welfare

東京農業大学 農学部 教授／農林水産省 生物多様性戦略検討会 座長・林 良博
Yoshihiro HAYASHI, Veterinarian, Professor, Tokyo University of Agriculture;
Chairperson, MAFF National Committee for Biodiversity Strategy



平成 22 年 8 月から 23 年 12 月までの 1 年 5 カ月間、環境省中央環境審議会の動物愛護部会に設けられた「動物愛護管理のあり方検討小委員会」は、25 回の論議を経てようやく報告書を取りまとめ、動物愛護部会に諮ることができた。

動物の愛護及び管理に関する法律は、その立法化から過去 2 回の改正まで、すべて議員立法として提出・成立してきた経緯がある。今回は、内閣による法案提出が噂されたが、結果として従来通りの議員立法になる見通しである。

今回の検討における際立った特徴は、パブリックコメントとして寄せられた意見が、検討の前半部に対して 12 万通を超え、さらに後半部に対しても 5 万通を超えたことであり、多くの人びとが本法の改正に高い関心を寄せたことが示されたことである。しかし、パブリックコメントは改正に熱心な人びとが意見を寄せるのに対し、現

The Subcommittee to study the welfare and management of animals, set up under the Animal Welfare Working Group of Japan's Ministry of the Environment's Central Environmental Council, met 25 times between August 2010 and December 2011. The Subcommittee compiled a report summarizing the discussions held during the 17 month period to the Animal Welfare Working Group.

The passing of the Act on Animal Welfare and Management (Animal Welfare Act), as well as its two revisions, was initiated by lawmakers. Although it was once rumored that the third revision would be submitted by the Cabinet, it will likely be submitted as another lawmaker-initiated bill.

What has been different about this revision (compared to the previous ones) is that the Subcommittee discussions have drawn much attention from the public. More than 120,000 public comments were submitted regarding the interim summary from the first half of the discussions and more than 50,000 regarding the summary of the latter half. The significance of these figures, however, should be treated with some caution because those people who are supportive of the proposed revision are more likely to express an opinion than those who favor maintaining the status quo. The latter tend to show less interest in revision drafts.

状維持を望む人びとはあまり関心を示さない傾向にあることを忘れてはならない。

内容的には、動物取扱業の適正化が焦点となり、深夜生体展示規制、移動販売、オークション等への規制について論議された。とくに幼齢動物を親等から引き離す日齢については意見がまとまらず、三つの案（45 日齢、7 週齢、8 週齢）が併記されることになった。さらに飼養施設の適正化や動物取扱業の業種追加についても検討された。その検討結果については、環境省のホームページで紹介されているので参照されたい。

検討小委員会の座長として痛感したことは、すべての犬種に対応できる科学的データが不十分であることである。人間もそうであるように、犬においても個別性が極めて高く、ひとつの基準に収まらない動物であるといえる。このような状況下では、示された科学的データを尊重しながらも、個別の具体的事例を踏まえて一定の基準作成を目指す必要がある。

The major focus of the discussions concerned the appropriate handling of animals by animal related businesses. The subcommittee recommended strengthening the regulations governing the display of animals late at night, mobile pet shops, and the selling of animals by auction. Regarding the age at which baby animals can be separated from their parents, the subcommittee could not reach an agreement and decided to submit three different viewpoints in their report (namely, at 45 day old, 7 weeks old, and 8 weeks old). Additional topics discussed appropriate animal feeding facilities, further animal handling business categories, and others. The summary of the discussions can be found on the website of Japan's Ministry of the Environment.

As the Chair of the Subcommittee, I am acutely aware that there is not enough scientific data that we can apply to all kinds of dogs. Like humans, dogs have great individuality and one standard approach cannot cover all kinds of dog. It will therefore be necessary to establish a certain standard based on, not only scientific data, but also on specific examples.

こころのワクチン

A Mind Vaccine

もみの木動物病院（神戸市）獣医師・村田 香織

Kaori MURATA, Veterinarian, Mominoki Animal Clinic, Kobe City



近年人間社会でもさまざまなこころの病がクローズアップされている。人間が人間社会で生活する場合でさえ、職場や学校に馴染めないなどの適応障害が生じる。動物でありながら人間社会で生活するペットは、本来のその種の社会とは全く異なる価値観の世界で生きていかなければならない。動物としてごく自然な行動も人間社会では受け入れられないことが少なくない。

長年ペットの問題行動のカウンセリングを行っているが、飼い主が犬を擬人化して自己流のしつけをしていたり、不適切なアドバイスや間違った情報に惑わされ、問題を悪化させていることが多い。また子犬の時期の社会化不足が原因と思われるケースも目立つ。

子犬の時期に十分な教育の機会を与えられないまま成長し、人間社会に適応しなければならない犬達は日々ストレスを強いられる。彼らが人間社会で幸せに暮らすためには、順応性の高い子犬の時期に人間社会に適応でき

るように社会性を身につけさせ、飼い主と信頼関係を築いておく必要がある。

問題行動を持つ成犬の治療に比べると子犬の時期にこれを予防しておくことの方がはるかに少ない努力で大きな成果を生む。また成犬の問題行動の治療は非常に忍耐が必要であるが、子犬の教育は毎日のようにその成長を実感できる楽しい作業である。非常に柔軟な頭を持つ彼らは、適切な行動を学習するのも早い。

問題行動を予防し、飼い主とペットが楽しく幸せに暮らすための教育を私は「こころのワクチン」と呼んでいる。心身ともに健康でしあわせな犬は飼い主のこころを明るくし、周囲の人にも快く受け入れられる。

伝染病のワクチンと同じく、すべての動物病院でこのこころのワクチンを接種する事ができれば幸せな飼い主と犬を増やし、結果的に不幸になる犬を減らすことができるだろう。

In recent years, there has been an increasing focus on various kinds of mental illness. In today's complex society, people are subject to a high incidence of adjustment disorders that may prevent them from fitting in comfortably at work or school. Meanwhile, the pet animals that live in human society are forced to conform to a world defined by a totally different sense of values than they would follow naturally in the wild. Indeed, completely natural behavior exhibited by pet animals is often found to be totally unacceptable in human society.

I have been counseling people about the problematic behavior of pets for many years, and during that time I have found that in a great many cases, dog owners tend to personalize their dogs and impose their own style of discipline. As such they often make problems worse after being swayed by inappropriate advice and incorrect information. Also, I have noticed that if there is a lack of socialization at the time when a dog is a young puppy then this can result in problems later on.

Puppies that grow up without the opportunity to receive sufficient training and that subsequently have to adjust to living in human society undergo a variety of stresses. In order for them to live happily in human society, they need to build up a relationship of mutual trust with their owners. They should also

be made to master sociability during their puppy period, while they are still highly adaptable.

Compared with treating adult dogs that exhibit problematic behavior, preventing problematic behavior during the puppy period produces major results with much less effort. Also, the treatment of problematic behavior in adult dogs requires a lot of patience whereas, by contrast, training puppies is a pleasant task and the animals' progress clearly perceivable on a daily basis. Puppies have very flexible minds, and they learn appropriate behavior very quickly.

I have coined the term "mind vaccine" to describe this kind of training in order to prevent problematic behavior and enable pets and their owners to live together pleasantly and happily. A dog that is healthy and happy both mentally and physically will lighten its owner's heart and it will also gain the willing acceptance of the people surrounding it.

In the same way as a vaccine can prevent the development of an infectious disease, if dogs can be inoculated with a mind vaccine at a veterinary hospital, this will increase the number of happy owners and dogs and consequently decrease the number of unhappy dogs.

ペットから学んだ異文化

Learning About Other Cultures from Pets

マースジャパン リミテッド 副社長・石山 恒
Hisashi ISHIYAMA, Vice President,
Mars Japan Limited



ペット産業に従事して29年になる。勤務している会社が多国籍企業で、会議等で30カ国に旅をした。何故そんなに多くの国々に行く必要があるか疑問に思うかもしれないが、7億匹もの犬や猫が世界で飼われていて、色々な国のペット事情を理解することが世界の事業活動に重要であった。1980年代日本でも、ペットフード産業が開花し始め、弊社でも海外の成功事例を日本市場に導入したのだが、そこで多くの文化的相違に直面した。海外で多くの犬種が存在するのに何故日本やアジアでは少ないのだろうか。日本で古くから飼われている犬は柴犬の相似形にすぎず、この違いはどこから来るのか。それを理解する為に、世界各地の博物館と美術館をよく訪れた。博物館は、何千年もの人類の変遷の歴史を、数時間で見て取れ、時代時代の生活を教えてくれる。イギリスの絵画で分るのだが、17世紀から近代に至るまでの貴族の家族絵には必ずと言っていいほど足元に犬がいる。

I have been working in the pet food industry for 29 years. In the course of my work for a multinational company, I have visited more than 30 countries to attend conferences, etc. It may seem surprising to have to visit so many places but, as there are around 700 million pet dogs and cats around the world, and as our company is active worldwide, it is important to understand the situation for pets in different countries. In Japan of the 1980s, the pet food industry began to flourish and our company introduced products that had proven successful internationally for the new market. Nevertheless, we did face a number of cultural differences.

In spite of the fact that around the world there is a great variety of dog breeds, why is it that only a relatively few varieties are popular in Japan and other Asian countries? It seems that most of the dog breeds kept in Japan since ancient times are similar in appearance to the small Shiba. So I asked myself 'how could this difference from the West have arisen'? To answer this question, I paid frequent visits to museums and art galleries around the world. Within just a few hours of looking at museum collections we can see a fascinating history of how human beings have changed over the course of several thousand years. This teaches us something about the lives people led in different periods. For instance, if you view English portraits of aristocratic families that were painted between the 17th century and the present era, you

だが日本の鎌倉時代からの鹿、猪狩りの絵を見ても、犬の本質的な特徴が描かれたものは殆ど無い。

農耕生活に犬が余り必要でなかった日本やアジア地域と、犬の存在が絶対的に必要であったヨーロッパ狩猟民族との違いなのだろうか。そうでない日本では犬はペットと言うより愛玩犬と言う表現が最適かもしれないと思うようになった。日本語には静的、動的状況を述べる形容詞や副詞、動詞が極端に少ない。もちろん広い語源を持つ英語は遥かに語彙が豊富であるが、状況を的確に伝へ、役割分担と時(季節)と位置の明確さが必要な「狩猟」と、余り動的状況の伝達と役割分担を必要としない「農耕」の違いから、このような言葉の違いの発展につながったのではないかと、ペット産業を通じてふと思った。

今回のパネルディスカッションではいろいろの国のペット事情を通して討議に参加したい。

are almost certain to see one or more dogs at their feet. However, if you look at Japanese pictures that depict deer or boar hunting from the Kamakura Period, there are almost no examples that show the essential features of dogs.

I suggest this is due to a difference between Japan (and the Asian region) on the one hand, where dogs were not so necessary for agricultural life and Europe, on the other, where they were absolutely essential for activities such as hunting. I have come to think that, in Japan, where working dogs are less important, the expression "favorite dog" is more appropriate than "pet". In the Japanese language, the number of adjectives, adverbs and verbs for expressing static or dynamic situations is extremely small. Of course, the English language, with its wider range of word origins, has a far larger vocabulary. But even so, it may be that a word such as "hunting", which conveys the situation vividly and requires further clarity only in terms of role-sharing, season and location, compares differently to a word like "agriculture", which is not required to convey a dynamic situation or role-sharing. Through my work in the pet industry I have felt that this kind of cultural difference has led to the development of such linguistic differences.

I look forward to participating in the panel discussion by commenting on the different pet situations in various countries.



WS9-Record

WS9- 記録集

社団法人 ジャパンケネルクラブ 理事長・永村 武美
Takemi NAGAMURA, President,
Japan Kennel Club



In the UK, people have a consciousness of their nation being a leader. For instance, they call their dog organization “The Kennel Club”, while here in Japan we call ours “The Japan Kennel Club”. In a broadcast from two years ago in January, the BBC criticized certain rules within the Club’s standards that can be judged as tantamount to animal abuse. One typical example related to bulldogs which, in most cases, are unable to give birth naturally. A Cesarean section needs to be performed in order to deliver the puppies. The BBC criticized this practice as animal abuse.

As you may know, the world’s largest dog show, Crufts, is organized by the Kennel Club. The show is held in March every year. Being a very traditional and high-caliber dog show, there is always some prince or other member of the Royal Family in attendance. However, in the wake of the BBC’s broadcast, the Royal Family has let it be known that none of its members will be attending Crufts in the future. The Kennel Club also suffered other set-backs including the withdrawal of several pet food makers from their sponsorship of Crufts.

The Club took the criticism about its dog breed standards sometimes amounting to animal abuse very seriously. It decided to make changes to the standards in the interests of breeding healthier dogs. As a result, with considerable effort, the club has made significant modifications relating to nearly 20 dog breeds.

On the other hand, The FCI (Fédération Cynologique Internationale: the world’s largest international canine organization, with over 80 member countries) holds standards for some 350 breeds. The FCI has decided that the country of origin for each breed should set the

standards for that respective breed. As many breeds of dog are native to the UK, including the bulldog, the FCI has accepted the modified standards. At the same time, it has appealed to dog show judges not to give too much attention to certain exaggerated body features when they are making their assessments. So, overall, there is a movement in judging for considering overall canine health and giving the top marks to the healthiest individuals. So we are now, at least, in an era in which our work as a kennel club is no longer limited to checking that dogs are of pure stock, improving breeds, and issuing pedigree certificates.

It is against this background that I am chairing today’s workshop. In this booklet, it states that Prof. Ohta of Azabu University is scheduled to deliver a talk at today’s workshop. However, as Prof. Ohta is unavailable today, Prof. Uchiyama, also of Azabu University, has kindly agreed to talk to us in his place. After Prof. Uchiyama’s talk, there will be two other speakers, namely, Prof. Hayashi of Tokyo University of Agriculture and Mr. Ishiyama, the Vice President of Mars Japan Limited, which is sponsoring this conference. These speakers will provide us with today’s topics.

We are allocating 30 or 40 minutes for each speaker to deliver their talks and then we will move on to free discussion plus a Q&A session, which will take up the final hour. I would like to take this opportunity to thank everybody in advance for your cooperation. So, Prof. Uchiyama, please start your talk.

人の健康と動物たち

The Effects of Animals on Human Health

東京農業大学 バイオセラピー学科 助教／ヒトと動物の関係学会 理事・内山 秀彦
Hidehiko UCHIYAMA, Assistant Professor, Tokyo University of Agriculture;
Board Director, Society for the Study of Human Animal Relations (HARs)



Hello everybody. I am Hidehiko Uchiyama.

I used to belong to Azabu University but I have since moved, from this year, to Tokyo University of Agriculture. While at Azabu University I studied under the guidance of Prof. Mitsuaki Ohta for over ten years. Today, I'd like to talk about what I was taught in those years, and also about the things I believe I should try to tackle from now on.

The subject of my talk today is “the effects of animals on human health”. Under this theme, I intend to talk mainly about the current state of animal-assisted therapy, or AAT, in this country.

The foundation of AAT at the academic level is the subject of anthrozoology, which is the scientific study of the relationships between humans and other animals, or human-animal interaction. I would like you to understand that AAT is essentially a variant, or in other words, an application model of anthrozoology.

I would like to talk about the historical side of studying human-animal interaction. Perhaps this will basically be a brush-up story for you. It concerns an association that goes by the long name of “the International Association of Human-Animal Interaction Organizations” and is better known by the acronym IAHAIO. The President of this association is Dr. Rebecca Johnson. IAHAIO was founded in 1990 as an international organization to bring together national associations and related organizations interested in advancing the understanding and appreciation of the links between animals and humans.

Relationships between people and animals began to become a topic in the 1980s, a few years before the IAHAIO was established. The real starting point in the field was marked by the Dundee meeting held in 1979. Here, specialists in education, psychology and veterinary science gathered and discussed the idea of holding a conference for the purpose of seriously considering human-animal interaction and the effects animals have on people. This movement eventually led to the establishment of the IAHAIO in 1990.

The IAHAIO holds conferences at three-yearly intervals. These conferences have taken place in Geneva in 1995, Prague in 1998, Rio de Janeiro in 2001, Glasgow in 2004 and Tokyo in 2007. I suppose some of you may have been among the participants. I took part in the Tokyo conference and the Stockholm conference, which was held in 2010. At the Stockholm event, a wide range of research and activities related to human-animal interaction were introduced.

In addition, in 1991, an organization called the International Society for Anthrozoology, or ISAZ, was established as a support organization for the scientific and scholarly study of human-animal interactions. ISAZ has held an annual conference each year since 1992, and its 2011 conference met in Indianapolis. This organization also publishes a quarterly academic journal entitled *Anthrozoös*. In 2006, another organization called the International Society for Animal-Associated Therapy, or ISAAT, was formed. This organization has the mission of certifying educational institutions involved in AAT (animal-assisted therapy), AAA (animal-assisted activities), and AAE (animal-assisted education).

The attitude in the West towards proceeding with human-animal interaction and animal-assisted therapy is based on the pragmatic standpoint of making positive use of animals in human health. As was announced at the Stockholm conference, approximately 17% of hospitals in Germany now have an AAT department and 95% of medical professionals including general practitioners recognize the efficacy of AAT. I myself consider this efficacy to be a powerful fact that has not yet been realized in Japan.

So, how has the subject of human-animal interaction been developing in Japan? The Society for the Study of Human Animal Relations, or HARS, was established in 1995. Currently, HARS and the Japan Animal Hospital Association, or JAHA, are participating in the IAHAIO as representative Japanese national members. In 2008, a society called 'Nihon Dobutsu Kaizai Kyoiku Ryoho Gakkai' was established in the same field, and this year it was certified as an NPO. So the movement is gradually gaining ground. However, in the West, a movement that was considering human-animal interaction seriously had already gained momentum by the 1980s. So simply stated, regarding AAT and human-animal interaction, Japan is lagging behind the West by 15 or 20 years.

At this point, I believe I should introduce you to anthrozoology, which serves as the basis for studying human-animal interaction. Yesterday, Dr. Rebecca Johnson talked about this research field so there may be some overlap between our accounts. But I intend to go into a great deal of detail.

This slide shows the survival rates of patients with cardiac diseases following discharge from hospital. This is a famous research paper by Friedman. In the actual paper, a table of tests is shown. This shows the results made into a figure, comparing pet owners with non-pet owners. Furthermore, it compares owners who keep dogs with owners of other animals, and shows the survival rates of cardiac disease patients one year after being discharged from hospital. Cardiac disease patients tend to be physiologically weak. Even when only experiencing mild stress levels their blood pressure can rise and put a burden on the heart sufficient to kill

them.

It is plainly obvious that the survival rates of cardiac disease patients differ significantly between those who have pets and those who don't. And of course, pet owners have better health results overall. In particular, since dog owners go for walks with their dogs, they benefit from the exercise effect. Friedman made a comparison between dog owners and owners of other pet animals, but even those keeping animals other than dogs showed significantly higher survival rates than non-pet owners. This research is considered to be the fundamental basis on which the study of human-animal interaction rests.

J.M. Segal studied the relationship between owning a dog and stress as measured by the average number of hospital visits people made. This research looked at elderly people. Of course, when people get old, their physical functioning tends to deteriorate. In addition, many older people become lonely after they are separated from their spouse or their friends. On this basis, elderly people can be divided into those facing many kinds of social stress and a group with low stress, comprised of elderly people in general. When these people are further classified into dog owners and non-dog owners, we find a self-explanatory result which is illustrated by the average numbers of hospital visits made by members of each group.

I have written that early prevention and health maintenance are important ways of limiting increased medical expenses that can be expected due to the aging society. Even among the elderly, in the low-stress group there is not a great difference in the hospital visit frequency between pet owners and non-pet owners, but when elderly people are under very strong social stress, the number of hospital visits made by pet owners is significantly lower than the number made by those who don't keep pets.

This next slide shows the results of a survey into the emotional states of elderly women. The subjects of this survey were classified by group into those who kept pets and those who didn't, and also into those who lived

with their families and those who lived alone. When these groups were compared, the results that emerged were very clear. The group that kept pets reported a reduced feeling of loneliness, improved control over their emotional ups and downs, a greater capacity to see things optimistically, and less susceptibility to becoming disturbed or unsettled.

This is a similar piece of research. This survey classified the subjects into those who kept pets and those who didn't, and compared their daily level of spiritual elevation, daily problems, satisfaction with life, sense of positive hope, etc. The results show that people who associated with pets on a daily basis ranked higher across the board.

This next piece of research, by James Serpell, is very interesting. It looked at the relationship between the incidence of health problems and pet dog and cat ownership. The health problems examined included minor headaches and stomachaches that happen on an everyday basis. During the first month after a group of previously non-pet owners acquired a pet, they reported a highly significant reduction in the occurrence of minor health problems. Actually, the group that acquired a cat showed a slight improvement over the first six months, but for the group that acquired a dog this improvement was maintained throughout the first ten months. This research demonstrated that daily health problems tend to decrease when people keep a cat or a dog.

All of this research says positive things about pet ownership. But is this really the case? Just the other day, I read a book entitled *Some We Love, Some We Hate, Some we Eat* by Harold Herzog. Maybe some of you have read it too. In that book, there are lots of reports concluding that animals have good effects on people both psychologically and physically. Also, there are a few reports stating that having pets doesn't have any effect the health at all. In the book it also states that the author asked Friedman, who I introduced earlier, "what effects do animals have on people?" Friedman answered, "animals certainly have a good effect on people, but they are not a cure-all."

Now, let's look at what kind of changes happen to pet owners' bodies as a result of keeping, or being in contact with, their animals as measured by the number of hospital visits they make or the changes in health problems they experience.

The research shown in this slide was conducted by Anderson. These readings show the maximum (systolic) and a minimum (diastolic) pressure. These are the measures figures for plasma triglycerides, which indicate the blood viscosity, and for plasma cholesterol. These are the figures for the male group. The white ones are for the group that didn't keep pets and the yellow ones are for the group that did keep pets. Among male pet owners, systolic blood pressure, plasma cholesterol and plasma triglycerides values were low. Among females up to the age of 39, there wasn't much difference between those who kept a pet and those who didn't. But for women over 40, we can see a clear difference in the values of these indicators.

At this point, stress becomes a keyword. What kinds of bodily reactions occur due to stress? When a person feels the effect a stressor, what kind of reaction does the nervous system produce? These are autonomic reactions. On the right side is the hypothalamic-pituitary-adrenal axis (HPA axis) pathway, which eventually leads to the secretion of that well-known hormone cortisol. Also involved are hormones such as corticotropin-releasing hormone (CRH) and adrenocorticotrophic hormone (ACTH). The nervous system responds to stressors very quickly. The mechanism is complicated. I teach this to students, but it is difficult to get them to understand. Such a reaction occurs in response to such and such a stressor, for example, when you do some exercise, or when you apply yourself to some task that is a little hard, such as studying, or doing some chores that daily living requires. So it is better if you don't think that it is bad for these reactions to occur. Actually, it is necessary for these reactions to take place on a daily basis.

However, when this kind of thing happens continuously over a long period, cortisol tends to be secreted for a longer time in response to each new stressful incident,

and the sympathetic nervous system goes into a state of protracted strain. This is the stress state.

Motooka's research involved measuring the state of the parasympathetic nervous system by analyzing the variability of the heart rate. This is because in order to ease stress, we should pay attention to the parasympathetic nervous system, which works in parallel with the sympathetic nervous system as part of the autonomic nervous system. Heart rate variability analysis looks at the action of the autonomic nervous system in real time by analyzing the heart wave interval, which is the interval between successive R waves. [An R wave is an upward deflection displayed on an electrocardiogram (ECG).]

This is called the high frequency component, or HF. It is an indication of the work carried out by the parasympathetic nervous system. For instance, walking the dog enhances parasympathetic nervous system activity. The action of the system is much more pronounced when walking with a dog than when walking alone. When the parasympathetic nervous system is working actively it means that the sympathetic nervous system is in a relaxed state. This slide shows that the effect produced by walking the dog daily becomes successively greater on the first, second and third days, etc. This is the result of comparing the parasympathetic nervous system in those who keep, and those who don't keep, a dog at home. As you can see clearly, the action of the parasympathetic nervous system is enhanced in those who keep a dog at home.

So far, we have looked at a variety of studies. Healy created a very convenient and very clear conceptual diagram to show that dogs have a positive effect on people's health by considering the mental, physical and psychological aspects of health, and he mapped out a health chain in dogs and their owners. Dog owners increase the amount of exercise they take, of course. And when their exercise increases, people can sleep better. Their physical health improves, and this means they have a lower absentee rate from work. Moreover, one of the social effects of keeping a dog is that when people enjoys themselves with a familiar partner they

do feel healthier. And when a person feels healthier, the number of hospital visits is lower as a matter of course. This figure shows a chain linking dog-ownership with owner health very clearly.

At this point, I am going to change the subject. So far, I have been talking about various research findings, but now I would like to tell you about the IAHAIO 2007 Tokyo Declaration. It begins: "Given the scientific and medical evidence proving the beneficial effects to human health and well-being that arise from interactions with companion animals, given the biological and psychological evidence for the innate affinity of humans to nature, including other living beings and natural settings,"

From this standpoint it continues: "the members of the International Association of Human-Animal Interaction Organizations unanimously approved the following resolution and guidelines for action at the IAHAIO General Assembly held on October 5, 2007 in Tokyo, Japan. It is a universal, natural and basic human right to benefit from the presence of animals. Acknowledgement of this right has consequences requiring action in various spheres of legislation and regulation. IAHAIO urges all international bodies and national and local governments..." And then it lists the following stipulations.

The first stipulation is: "To enact housing regulations which allow the keeping of companion animals if they can be housed properly and cared for adequately, while respecting the interests of people not desiring direct contact with such animals." This is followed by: "To promote access of specially selected and trained, healthy, and clean animals to medical care facilities to participate in animal-assisted therapy and/or animal-assisted activities." The third stipulation is: "To recognize persons and animals adequately trained in and prepared for, animal-assisted therapy, animal-assisted activity and animal-assisted education," and the fourth is: "To allow the presence of companion animals in care/residential centers for people of any age who would benefit from that presence. The fifth and final item on the list is: "To promote the inclusion

of companion animals in the school curricula according to the 'IAHAIO Rio Declaration on Pets in Schools'." However, let's consider the actual situation at present. Let's try to visualize it. Already five years have passed since this declaration was issued but, so far, it seems that not even one of these stipulations has been realized completely. Despite such a clear and concise declaration being issued there has been little progress. Although there is no doubt that things are moving forward little by little, nothing significant has been achieved yet.

Healy, who I mentioned a little earlier, carried out a large-scale survey on pet keeping and human health in three countries simultaneously, namely Australia, China and Germany. The survey revealed that the number of annual hospital visits paid by pet owners was 15 to 20% less than the number of visits paid by people who don't keep pets. When this is converted into health care costs, pet ownership is estimated to save the equivalent of 754.7 billion yen in Germany and 308.8 billion yen in Australia. This research is comparatively recent. In Japan too, given the advance of the aging society, rising health care costs are unavoidable. In this context, the positive effect of keeping animals as pets is worth highlighting.

In Japan, research has become an important tool in the drive to expand the positive health effects of contact with animals as widely as possible and also to broaden the spread of AAT, AAE and AAA. So I would like now to consider the direction that this research is taking in Japan. It starts from the point that the health effects animals bring to people have already been demonstrated scientifically and it goes on to examine this subject in more depth so as to discover in what ways animals affect human health. I think this is a very important subject.

We need to pursue more deeply the mechanisms by which these various changes occur, and we need to further our research into the significance of better relationships between people and animals. Also it is essential to conduct this research based on a scientific approach containing both quantitative and qualitative analysis, and using methods by which reproducibility

can be achieved. As I wrote in my summary, James Serpell has said that there have been relatively few scientific studies on this subject. So this is a matter of some concern in Western countries as well.

In our approach, oxytocin came up as one of the substances related to human health. Oxytocin is a hormone that, among other things, stimulates the production of breast milk, although men produce oxytocin as well as women. In mother-child relationships oxytocin concentrations are observed to rise. Beyond its role in milk production oxytocin has long been regarded as a mysterious hormone. Indeed, in recent years it has also been called the 'happy hormone'. Several researchers have been studying oxytocin with the idea that it can serve as a measure of the positive relationship between people and their dogs.

Let's look at a concrete research paper and its results. In one experiment, 55 "pairs" each consisting of a dog and its owner interacted in a room for 30 minutes. The oxytocin concentration in the owners' urine was measured both before and after the interaction period. In the case of the 13 owners who reported that their relationship with their dog was good, the oxytocin concentration rose significantly. Conversely, in the case of the 42 owners who reported their relationship with their dog was not good, the oxytocin concentration in their urine did not change. However, even among this latter group of owners, when they practiced eye-contact training (a basic form of dog training) in some cases their oxytocin concentration did increase.

Earlier, I said that we should adopt an approach to how we build good relationships between people and animals. In this experiment, among the 55 dog owners, only 13 reported having a good relationship with their dogs. That is about 23% of the total. We can't say anything for certain because the experiment was only carried out with 55 dog owners. Still, I think we should take note of what the results suggest about people who have good relationships with their dogs.

Something else to which I have been paying attention is brain activity measurement using NIRS (Near Infra-Red

Spectroscopy), a technique that Hitachi Ltd. has named 'optical topography'. Optical topography systems are groundbreaking measurement devices that have been attracting a lot of attention recently. They are capable of measuring the activity of the cerebral cortex, other parts of the brain, and changes in nerve activity.

Originally, optical topography systems were huge and expensive devices. But recently they have become quite compact and easy to use. It was difficult to employ the earlier optical topography systems for animal-related experiments. This is the screen of the measurement device. A band is first wrapped around the subject's head and then the waveforms from each brain measurement site are shown on the screen. There are 16 channels and 16 spots, in either blue or red, and these waveforms are displayed for each measurement site. Optical topography measures the changes in oxygenated and deoxygenated hemoglobin at each of these sites.

This is a video I recorded of an NHK Special documentary on the treatment of depression. The program shows this device being used. Let us look at the video for a short while. (Video projection)

As you saw, the subjects are provided with various kinds of stimulation. For example, they can be asked to think about a word. They can be given a different subject and the changes in their brain activity can be observed as they think about it. It can be used as one index in depression testing. When a mentally healthy person undergoes this test while being monitored by optical topography, the indications rise significantly when the subject is asked to think about one particular word. But in the case of a depressed person the indications do not rise very much. This is especially conspicuous in the case of the frontal lobes. I suppose that since this particular experiment was shown on television, there might have been some exaggeration, but in the most advanced research quantification of the results may have progressed.

I carried out the following experiment personally. There were five subjects, represented here as Mr. A, Mr. B,

etc. I was studying the kinds of change that can be observed in brain activity when the subjects touched a dog, looked at a dog, touched a cat, or looked at a cat, respectively. At this point, a dog or a cat was brought in. When the dog or cat appeared, just by seeing the dog, this person's brain activity went up this way. Then it rose like this when they touched the dog. In the case of cats, the changes were even more significant. Someone's brain activity went up by this much when they saw the cat, and by this much when they touched the cat. This experiment was performed with only a small number of subjects, so we can't conclude anything from it unless we analyze the results in detail. However, the changes were observed for sure. But in the case of one person brain activity did actually decrease.

I have been thinking about what it is about animals that are good for human health and how, by using such monitoring devices, we can discover at what point and by what mechanism the effects of animals appear. I have personally experienced using this device, and I would like to show you what happened. Unfortunately, it is rather difficult to see. Time is shown along this axis. This is one minute. Changes in brain activity are shown here. Now, it's going up a little. I must have had a thought about something. This is such a sensitive machine, so it is rather difficult to use. At this point, a dog appeared. Let us look at a video as I issue various commands to the dog.

(Video projection)

This was a very good dog. He obeyed me well which pleased me. Look at this channel 7. You can see the indication is up. I think it suggests that when a dog obeys my commands, or when communication with the dog goes well, the indicator goes up.

My guess is that, from these experiments, we can come to an understanding of what it is about human-dog interaction that most influences human brain activity. It might be the 'contact with', 'issuing commands to', or simply 'touching the animal'. Also, regarding my background, I am not a dog trainer and I don't have much experience with dogs. When people such as dog trainers who are used to handling animals took part in

this experiment, the changes in brain activity that were observed were not very large.

Here are the results of my experiment. You can see this part rises in a vague way. But even though I only underwent this experiment for one or two minutes, a significant change is visible.

From this point, represented by the dotted line, the dog appeared. This is the part where I am giving commands. Channel 7 is this part. Seeing this alone, I think the experiment is very interesting. I intend to continue this research.

This is an overview of animals appearing in AI (artificial intelligence) studies, based on a collection of study results published over the past ten years. The results show that, in the overwhelming majority of cases, dogs were used. AI studies commonly use pet dogs as subjects of study while ordinary dogs are used for AAT. Not many cats appeared in these studies. I have also looked at research published in *Anthrozoös* over the past decade. Here too, dogs made up the overwhelming majority of study subjects although there are a few studies using dolphins and horses. Cats appeared rarely. However, if we think paradoxically, we should consider experiments using horses and cats as well.

This scene shows a compact optical topography system. The device is placed on the subject's back and the band tied around the subject's head. This is the point in the middle of an experiment. The researchers are paying attention to changes occurring in brain activity when the subject gets onto a horse and how this change differs from what is observed during interaction with other animals.

When I obtain new research results I would like to report them to you. For now, that completes my presentation. Thank you very much for your attention.



人の健康と動物たち
 ～わが国の動物介在療法の現状～

東京農業大学 農学部バイオセラピー学科
 内山秀彦

【Slide 1】

1979年 Dundeeミーティング
 1990年 IAHAIO設立
 1995年 ジュネーブ
 1998年 プラハ
 2001年 リオ・デ・ジャネイロ
 2004年 グラスゴー
 2007年 東京
 2010年 ストックホルム

【Slide 5】

動物介在療法の基盤
Anthrozoology
 (人と動物の関係学)

動物の人の健康への影響

【Slide 2】

1991年 International Society for
 Anthrozoology (ISAZ)
 ヒト(人)と動物に関する国際学会(個人
 が会員): 学術的な側面を追求: 毎年
 開催(今年はインディアナポリス)

2006年 International Society for
 Animal-Assisted Therapy
 (ISAAT): AAT/AAA/AAEに関わる教育機関
 の認定等

【Slide 6】

人と動物の関係学
 Anthrozoology

その歴史

【Slide 3】

欧米諸国の姿勢
 動物の人の健康への利活用を
 積極的に行う(実利主義)

ドイツでは、約17%の病院で、「動物介在療法
 科」を持つ。医師など医療従事者の95%が「動
 物介在療法」の効果を認めている。
 (IAHAIOストックホルム大会、2010)

【Slide 7】

International Association of
 Human-Animal Interaction
 Organizations
 (IAHAIO, アイアハイオ)
 1990年設立

人と動物の関係に関する
 国際組織(公式和名)

【Slide 4】

わが国のヒト(人)と動物の関係学

1995年 ヒトと動物の関係学(HARs)
 日本動物病院福祉協会(JAHA)とともに
 IAHAIOのナショナルメンバー

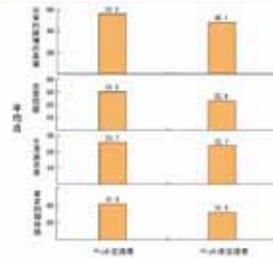
2008年 日本動物介在教育・療法学会
 (現在はNPO法人)

【Slide 8】

人と動物の関係学の 基盤になった研究

【Slide 9】

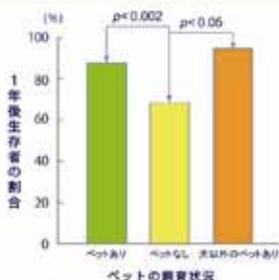
5. 動物がもたらす人の健康への良い効果～ペットとの交流～



日常的精神の高揚、日常の問題、生活の満足度、肯定的精神状態に関する
ペット交流者と非交流者の平均点 (Miller et al., 1992)
ペット交流者の方が得点が高い

【Slide 13】

1. 動物がもたらす人の健康への良い効果～心疾患の患者さんへ～

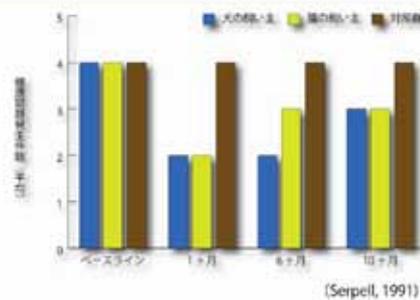


心臓疾患患者の退院後の生存率 (Friedmann et al., 1980)

ペットを飼っている人の方が飼っていない人と比べると、1年後の生存率が高い

【Slide 10】

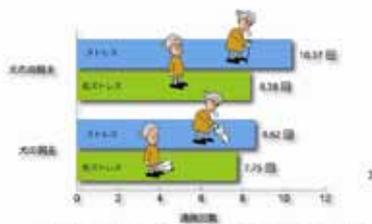
4. 動物がもたらす人の健康への良い効果～ペットを飼うこと～



犬や猫を飼うと日常的健康問題が減少する

【Slide 14】

2. 動物がもたらす人の健康への良い効果～高齢者と合併症～



犬を飼うこととストレスの軽減と関連した平均入院回数 (Serpell, 1990)

急速な高齢化による国民医療費の増大に対して、早めの予防、健康維持が重要

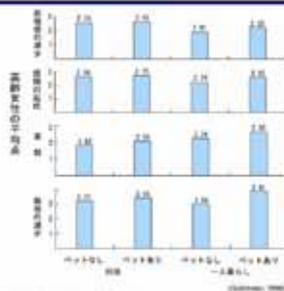
【Slide 11】

動物（ペット）の飼育、
あるいは動物とのふれあいによって

人のからだにどのような
変化が起きているのか？

【Slide 15】

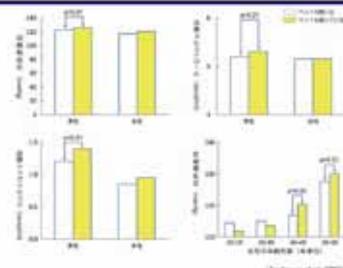
3. 動物がもたらす人の健康への良い効果～高齢者～



高齢女性の感情評価
一人暮らし、他の人と同居、ペットあり、なしの効果
ペットを飼っている人の方が得点が高い

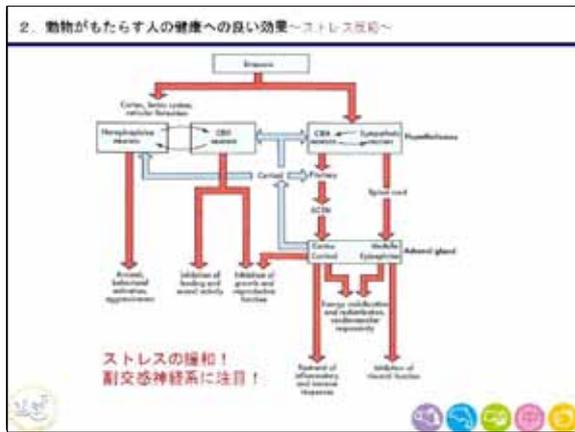
【Slide 12】

1. 動物がもたらす人の健康への良い効果～生理的効果～



男性のペットの飼い主は、収縮期血圧と血漿コレステロール、血漿トリグリセリド値が低い。40歳以上の女性において、ペットを飼っている人の方が収縮期血圧が低い。(Anderson et al., 1992)

【Slide 16】



【Slide 17】

IAHAIO2007東京宣言

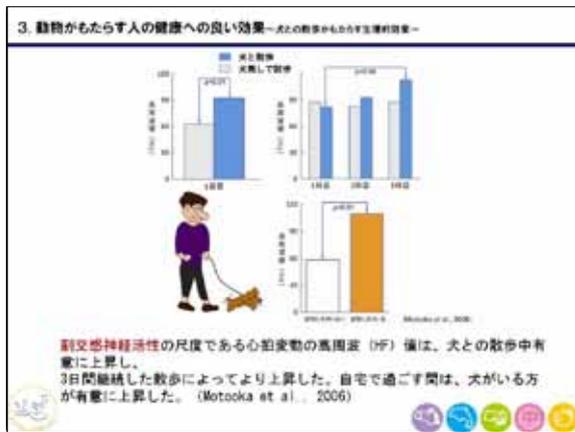
コンパニオアニマルとの交流が人の健康と福祉に良い影響を与えることは、科学的および医学的に証明されており、人は生まれながらに他の生き物や草木など自然に親しみを覚えることも、生物学的および心理学的に証明されています。

かかる観点から、IAHAIOメンバーは、2007年10月5日、東京で開催された総会において、以下の決議および指針を満場一致で承認しました。

「人が動物の存在から恩恵を受けることは普遍的かつ自然な基本的人権である」

この権利を広く享受するために、様々な分野の法律や規則に関する取り決めが必要となります。そのためIAHAIOはすべての国際機関、国家および地方行政機関に以下のことを要請します。

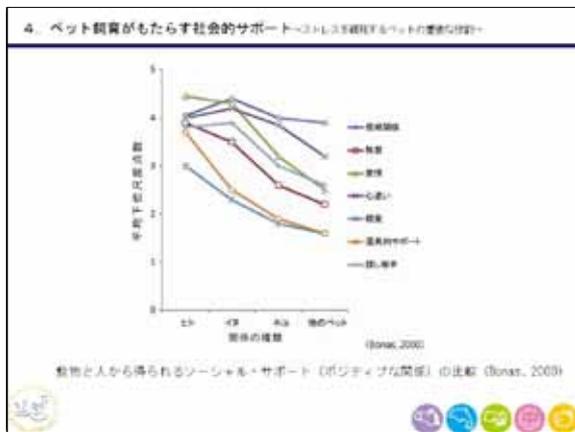
【Slide 21】



【Slide 18】

1. 動物との直接的な接触を望まない人の権利も尊重しながら、適切に飼育されているコンパニオアニマルの同居を認める住宅規則を制定すること。
2. 動物介在療法や動物介在活動のために、特別に選ばれ訓練された健康で清潔な動物が医療施設に入れるように推進すること。
3. 動物介在療法、動物介在活動、動物介在教育を実施するために適切に訓練された人と動物を認めること。
4. 動物がいることによって恩恵を受けることができるあらゆる年齢層のケアセンターや入居施設において、コンパニオアニマルの存在を認めること。
5. IAHAIOリオ宣言（動物介在教育実施ガイドライン）に基づき、学校カリキュラムにコンパニオアニマルを介在させることを推進すること。

【Slide 22】



【Slide 19】

HEADEYさんらは、同時に、ドイツ、オーストラリア、中国の3カ国でペット飼育と人の健康に関する大規模な調査を実施し、ペットを飼っている人は飼っていない人に比べて年間で医療機関に通う回数が15%～20%少なかったという結果を得た。

彼らの試算によれば、ドイツで約7,547億円、オーストラリアでは約3,088億円の医療費減に相当する。(2006、2007、2008)

【Slide 23】



【Slide 20】

わが国の研究の方向

- ・動物の何が人の健康に影響を及ぼすのか？
- ・人のからだにどのような変化が起こるのか？
- ・より良い人と動物の関係とは何か？

科学的なアプローチ

【Slide 24】

1. 「幸せホルモン」について

オキシトシンは母と子の関係にも重要なことから、「幸せホルモン」とも知られているが、実はこのホルモンが人と動物の深い関係の鍵になる。

具体的に、オキシトシンは動物の社会的行動、特に「愛情」や「絆」を促進する作用がある。また、動物のストレスを軽減し、健康を維持する効果も示されている。さらに、動物の学習能力を向上させる効果も示されている。

このとき、オキシトシンの作用は動物の「絆」を促進するだけでなく、動物の「絆」を維持することにも役立つ。さらに、動物の「絆」を促進することによって、動物の「絆」を維持することにも役立つ。

この結果は、オキシトシンが動物の「絆」をもたらし、動物が人の健康にどのように関わるかを明らかにする第一歩になる。

【Slide 25】

NHKスペシャル 「ここまで来た！うつ病治療」

【Slide 29】

新たな脳計測手法

NIRS (Near-Infrared Spectroscopy, 光トポグラフィ (日立製作所商標登録))

NIRS: 近赤外分光法を用いて、大脳皮質の神経活動に伴い変化するヘモグロビンの相対的変化量を多点で測定し、画像化する脳機能画像診断法である。

【Slide 26】

イヌ見る (Dog watching) waveforms for subjects A through E.

イヌ触る (Dog touching) waveforms for subjects A through E.

ネコ見る (Cat watching) waveforms for subjects A through E.

ネコ触る (Cat touching) waveforms for subjects A through E.

【Slide 30】

より広範囲で高精度な脳機能計測を実現

近赤外光イメージング装置 OMM-3000シリーズ

OMM-2001外装型

脳内の光伝播の模式図

＜脳機能計測タイプ＞
 脳機能計測タイプ
 脳機能計測タイプ
 脳機能計測タイプ

【Slide 27】

Advertisement for Spectratech Inc. NIRS devices.

【Slide 31】

Spectratech Inc. NIRS software interface showing brain activity maps and waveforms.

【Slide 28】

Spectratech Inc. NIRS software interface showing multiple channels of brain activity data.

【Slide 32】

動物愛護法とイヌの福祉

The Animal Welfare Act and Dog Welfare

東京農業大学 農学部 教授／農林水産省 生物多様性戦略検討会 座長・林 良博
Yoshihiro HAYASHI, Veterinarian, Professor, Tokyo University of Agriculture;
Chairperson, MAFF National Committee for Biodiversity Strategy



Today, I am going to talk about the Animal Welfare Act, or to give it its full name, the 'Act on Welfare and Management of Animals', for which revision recommendations were submitted on December 21, 2011. This law was previously subject to major revisions in 1999 (when its name was changed from the 'Law Concerning the Protection and Control of Animals'). In addition, a stipulation had been added that the law was to be reviewed at five-yearly intervals. So it was revised again in 2006 when heated discussions once again took place. This time around the plan is to present a bill with major revisions to the Diet in the form of a "lawmaker-initiated bill" during 2012.

At the Ministry of the Environment (MOE) there is a council called the Central Environmental Council and within this council is a section called the 'Animal Welfare Section'. I am the chief of this section. At our 26th section meeting on July 15th 2010, we decided to set up a subcommittee to examine the rights and wrongs about revisions to the Animal Welfare Act and to begin deliberations on the subject. As the Central Environment Council is a large organization it was further agreed that anything decided at the subcommittee level would be considered as a Section decision. In turn, things decided at Section level would be considered as having been decided by the Council. This put the subcommittee in a very important position. Also, the arrangements were to be set up in such a way that the Section Chief became the Chair of the subcommittee.

So the subcommittee began work in August 2010 and completed its first round of deliberations in December 2011. Within the space of 17 months, we held a total of 25 meetings. One extraordinary feature

of the subcommittee was that so many members of the public wished to observe its meetings that access had to be determined by drawing lots. Also, when the subcommittee invited the public to make comments, 120,000 comments were received for the first half of the proceedings and 50,000 comments for the second half. Although the MOE has a large number of councils and committees, no other committee has received so many comments.

In this sense, we can accurately state that a great many people have taken an interest in the Animal Welfare Act. We began our studies in connection with the latest revision of the act in August 2010 and first attempted to assess awareness for the act. According to our survey, the ratio of respondents who knew that the legislation existed was 67% and the ratio claiming to know the content was 24%. So, while a great many people had comments about the proceedings, from the standpoint of the nation as a whole, the number of comments was not very high. Nevertheless, the fact that 67% of the general public knew the name of the act shows that, even then, a considerable number of people were taking an interest in its revision.

In Japan, the ratios for spaying and neutering operations are currently 42% for dogs and 83% for cats. This is a controversial matter, in particular because the rate for cats is quite high.

Compared with four decades ago, the number of dogs and cats abandoned and taken to local public health centers has declined significantly. Back in the 1970s, the number of abandoned dogs alone amounted to 700,000 per year. Japan is the only country in the

world to have reduced the number of abandoned dogs and cats to just a tenth of the 1970s level. The actual published figures depend on how the statistics are interpreted. For example, in the U.S., between 800,000 and 1.2 million cats are destroyed each year. Just as in Japan, these are mainly kittens. As for dogs, according to Dr. Benjamin L. Hart, probably 5 million dogs in the U.S. are abandoned by their owners and destroyed every year. I think that Japanese people are somewhat averse to the idea of killing animals. However, in Japan, even today, over 200,000 cats are destroyed annually. These are mainly kittens because a great many cats give birth to unwanted offspring. It is for this reason that I believe the Japanese people are becoming more aware of the need to spay or neuter their own pets.

There is currently a debate going on about the advantages and disadvantages of issuing animals with an official identification (IDs). From my point of view, IDs are necessary in order to give animals "citizenship", or perhaps I should say they are necessary for instilling recognition that animals have a certain social status. In any case, it is a major advance that the number of animals with an ID increased from 60,000 at the end of 2006 to 330,000 in 2010.

As a result of the revisions to the Animal Welfare Act in 2006, the number of traders subject to the regulations governing animal handling businesses has, as of 2010, expanded dramatically and the number of registered facilities have increased 1.7 times.

Next, I'd like to talk about promoting appropriate treatment for experimental (laboratory) animals and industrial (farm) animals. It is difficult for the MOE to become involved in these two issues because the Ministry of Health, Labour and Welfare (MHLW) and the Ministry of Education, Culture, Sports, Science and Technology (MEXT) have jurisdiction over experimental animals. Likewise, the Ministry of Agriculture, Fisheries and Forestry (MAFF) has jurisdiction over industrial animals. The prevailing attitude in officialdom is that if there is a governing agency for a specific issue, we should leave all matters related to that issue to the agency concerned and not attempt to touch

such matters. Nevertheless, we have given some consideration to the issues mentioned. For example, we conducted a questionnaire and carried out a review of standards. This is one of the merits of having legislation reviewed every five years.

Now, I will tell you briefly about what we discussed during our first 25 meetings at the Central Environmental Council and what we submitted in our report. Firstly, a major focus of our discussions was the subject of animal handling businesses. Based on our discussions, we produced a report recommending that late-night sales be prohibited. Essentially, we urged that the display and sale of puppies and kittens should be prohibited after 8 pm. But we decided it would be unrealistic to try to prohibit all animal-related activities after 8 pm. As the Director of the Japan Kennel Club, Nagamura-san, has said people of today are busy, myself included. I come home at 11 pm after which I take my dog for a walk. If that sort of behavior were to be prohibited, it would be a very bad thing for dogs.

Concerning this issue, our main question was, knowing that there are buyers who visit pet shops while drunk, would it be acceptable to restrict the shopping convenience to such people in order to reduce the stress placed on the animals, particularly where these animals were young dogs and cats?

The same reasoning also applies to mobile retailers (sales vans, etc.). In many of the more mountainous regions of Japan where most of the local residents are elderly people, there are mobile shops that travel around selling daily goods. Because these shops help to support the lives of the elderly, these retailers should not be subject to regulation per se. But because we see no end to the examples of mobile retailers selling animals in a way that negatively impacts the health and safety of these animals, the subcommittee reported that some sort of regulation is required to deal with such cases.

Another thing we looked at was 'Internet Retailing'. The Internet is a very convenient method for people wanting to buy an animal from excellent breeders located far

away. But in principle, pet sales not permitted except when the selling is conducted face-to-face. The Internet is a very good way to exchange information between people located far away from each other. But it is not permissible for people to sell a pet animal without the buyer seeing it first or without there being a face-to-face explanation about the animal being given to the purchaser.

These days, the scale of the auction business has become huge, so we also reported that it is necessary to improve transparency and thoroughly disclose information about auction markets.

A major task that had remained from the time of the previous revision was deciding the minimum age at which puppies and kittens could be sold. Our recommendations were based on debating how long puppies and kittens need to stay with their mother in order to experience sufficient maternal love and attention and obtain the initial education they need from their mother. We gave this discussion a very high priority.

There was quite a diversity of opinion on the issue. The thinking on the animal industry side, including the pet retailers, was that the minimum age should be 45 days. At present, the industry is employing a self-regulated minimum age of 40 days and they believe 45 days is a figure they can aim at in the future.

Meanwhile, Dr. James Serpell, who was mentioned earlier by Professor Uchiyama, has published accurate data resting on a scientific foundation suggesting that seven weeks should be the minimum age for separating puppies and kittens from their mothers. Also, within the developed world, there are some countries and states that use eight weeks as the minimum age. I don't know the rationale behind settling on eight weeks, but perhaps it has been implemented on an experimental basis. This issue has been passed down to us named as "the eight weeks of age problem". As chair of the subcommittee, I felt that seven weeks of age was the best figure, because it was backed by a scientific rationale.

Another reason is that there are six or seven guide dog associations in Japan established as foundations, although the number of dogs managed by each is not particularly large. Guide dog associations entrust puppies to ordinary families (puppy workers) for a certain period. When the dogs are returned, they select those they consider to have the aptitude to be a guide dog and then train them up. In Japan, puppies are usually handed over to puppy workers at the age of 50 days. This is just over seven weeks of age. If a minimal legal limit of eight weeks of age were to be established, these associations would have to delay the time they hand over the puppies to the puppy workers.

In the National Diet, however, the Democratic Party of Japan is sticking with eight weeks of age, while the Komeito political party say that seven weeks is good, so I don't know how things will finally be decided. There is also a possibility that the minimum age may differ according to the breed of dog. The JKC recognizes approximately 150 breeds, and the development of puppies does differ according to the breed. It would be quite rough if we were to simply group all breeds together and employ a common standard to cover them all. I think the best way would be to tentatively decide on a general minimum age of seven weeks, then single out specific breeds for which a higher minimum age is required. After that, before the next revision of the law five years from now, we should acquire scientific data to provide a reason for raising the minimum age to eight weeks and then revisit this issue at the time of the next revision. To decide to establish a minimum age of eight weeks just because certain other countries have done so is not an appropriate way for a sovereign nation to determine legislation.

Regarding limitations on breeding dogs and cats, an opinion was raised that for protecting breeding dog health, stricter controls should be exercised over irresponsible breeders who currently use high breeding frequencies and short breeding intervals. On the other hand, another opinion was expressed that optimum breeding frequencies and intervals should differ according to the breed, because some breeds can breed more frequently without problem while others

cannot. So it is difficult to regulate breeding in a single uniform way. The subcommittee came to recognize that we should leave breeding regulations unchanged and treat it as an animal welfare issue. Accordingly we decided not to submit any concrete proposals regarding maximum breeding frequencies at this time.

Another issue on which we were unable to set numerical values was the standardization of rearing facilities. I will talk more about this later but, in order to guarantee the five freedoms for animals, it is important that animals can move about freely and be free from hunger and thirst. To this end, breeding facilities need to be set up in a way that matches the requirements of specific dog or cat breeds. We found this it difficult to make a scientifically based judgment on this issue. So in its report the subcommittee recommended that an expert committee comprised of specialists in ecology, etc., should discuss the issue. I expect that the MOE will establish such a committee.

Although the subcommittee was comprised of 16 members, these people came from a variety of other fields and most were not experts on the subject at issue. That is why our report recommended that a specialist committee be established as a future task.

Over the course of our work we examined a great many points. Firstly, we studied the addition of other kinds of business. We received insistent appeals from operators of animal carcass cremation and burial services who told us they wanted to be registered as animal handling businesses. Usually, businesses in most industries dislike being registered. My impression was that the reason why these operators also want to be registered as animal handling businesses is to be socially authorized. However, Article 2 (Fundamental Principle) of the Animal Welfare Act begins with the phrase, "In light of the fact that animals are living beings." With this in mind, the majority of subcommittee members took a negative stance on the issue, believing that such companies, although they do handle animal carcasses, are unsuitable to be classified as animal handling businesses.

The majority opinion was that it was more meaningful to discuss this issue as a hygiene issue than an animal handling business issue. On the other hand, some members did argue that if Japanese pet owners were asked if it would be acceptable to dispose of their dead pet's carcass in the same way as raw garbage, perhaps 90% of them would disagree. Obviously, people are emotionally attached to their pets in the same way that they are attached to human family members. They remain so even after their pets have died. This being the case, rather than handling the carcasses as raw garbage, the view was expressed that disposal should be regulated under the Animal Welfare Act and the companies performing this disposal should be accepted as animal handling businesses. While holders of this opinion were in the minority this time, the argument may be brought up again in future.

Also, the opinion was voiced that amphibians and fish should be added to the classes of animals covered by the Animal Welfare Act. Currently, the act applies only to mammals, birds and reptiles. Its scope does not extend to amphibians, fish or invertebrates. Under the current legal situation, if somebody were to tear a live frog limb from limb, they would not be liable to prosecution under the law. The subcommittee agreed that it would be natural to include amphibians and fish under the scope of the Animal Welfare Act but the majority opinion was that it would be premature to include these classes at present.

However, there is the problem of many cases in which amphibians and fish raised as pets are abandoned because their owners are no longer able to take care of them. As a result they live here and there in the wild as alien species. In particular, exotic freshwater fish proliferate in rivers and lakes across the country causing environmental problems. During the subcommittee meetings, the opinion was expressed that traders in live amphibians and fish should be controlled under the Animal Welfare Act in order to crack down on the situation. However, the majority opinion was that this issue should be discussed from the standpoint of biodiversity in Japan and the preservation of native species rather than from an animal welfare standpoint.

So it should not be an issue to which the Animal Welfare Act is applied.

The issue of whether the Animal Welfare Act should be extended to cover the raising of experimental animals was subject to a lively debate in which the pros and cons were hashed out. As I mentioned earlier, without more sufficient time to discuss such issues in depth, this subcommittee cannot solve the problems related to experimental animals and industrial animals. Our discussions remained bogged down on the pros and cons behind the issues.

Next, we talked about homes for old dogs and cats, which is another problem. It is younger women who most frequently say that they would worry about their pet, and would want a pet care service to take over after they die. So they make arrangements to transfer ownership of their animals while they are still alive. But the operators of these facilities ask for significant amounts of money, and their industry is expanding rapidly. The subcommittee concluded that such businesses should be subject to regulation as animal handling businesses.

Moreover, animal welfare organizations frequently handle live animals, as do organizations that find foster families for animals, and carry out other activities. But although these organizations handle animals, we agreed that they require a different response.

There are also vocational schools raising a large number of dogs and cats for educational purposes rather than for profit per se. If we include trimming schools, there must be over one hundred such places in Japan. We concluded that it is necessary to consider putting these vocational schools into the same framework as businesses from the perspective of how the animals are treated under their roof.

On the other hand, ways to ease restrictions were also on our agenda. Simply strengthening regulations may only result in local government personnel becoming too busy to the point of exhaustion. Of course, it would be wonderful if the local government departments

responsible for implementing the regulations could increase their staff numbers or budgets, but in the present financial climate, this would be difficult.

Accordingly, we believe that instead of pushing for uniform regulation across the board, it would be better to use more flexible strategies to deal with highly professional operations such as animal hospitals, zoos and aquariums.

However, for some species, there are some things that must be more strictly explained. When importing various species from overseas and selling them in Japan as pets, it is necessary to increase the traceability of each individual animal with a clearly stated 'country of origin'. Also, such animals sometimes need extra special attention.

There are some animals for which more detailed explanations are needed, but then again, does a species such as the Mongolian gerbil really need the same degree of detailed explanation as a dog? Accordingly, explanations that differ according to the species or breed are required.

Another item on the subcommittee's agenda was the increasing of penalties. Although penalties for various offenses under the act had already been raised during the previous revision, nobody was opposed to further increases. In the old days, regardless of how bad the animal abuse case, the maximum fine was 50,000 yen. This was the same level of penalty as a minor offense such as urinating in the street.

Under the previous revision, the maximum fine for abusing an animal was increased to 1 million yen and, in addition, prison terms were introduced. However, within the Invasive Alien Species Act, which is under MOE jurisdiction, the penalties for some offenses can carry prison terms of up to three years and fines of up to 3 million yen for individuals (or 100 million yen in the case of corporations).

It is noteworthy that more severe penalties were instituted when the Food Sanitation Act was revised

recently. So I think it is possible that the penalties for animal abuse will also be increased. In reality, a balance should be maintained between the penalties imposed under different laws. From the standpoints of both ordinary and legal commonsense, penalties related to animal welfare offenses should not be markedly different or unreasonably low. While we were unsure of what result might be achievable, the subcommittee did agree that the penalties for these offenses should be increased.

It is difficult to apply such legislation to the handling of experimental animals or industrial animals. At the previous revision, it was decided to adhere to the '3Rs' of 'replacement, reduction and refinement', thereby reducing the number of experiments that need to employ animals. Instead alternative methods should be used. Major pharmaceutical makers and the cosmetics industry practice the 3Rs by installing councils to oversee the policy. At universities, there are medical and agricultural departments that have installed councils. However, liberal arts faculties also occasionally perform animal tests and some of these departments have not installed appropriate councils.

In addition, some food makers perform animal tests, but it is difficult to grasp the extent. So on the subcommittee, opinions were expressed that it would be good to introduce a notification or registration system.

In Japan the welfare of experimental animals is carried out under a system of voluntary controls. But in many other countries their welfare is evaluated by external inspectors, etc. Among the subcommittee members two opposing opinions were voiced. The first was that, as there have been requests from universities and research institutions that conduct animal experiments but which make efforts to observe the 3Rs, so we should respect their efforts and maintain a wait and see attitude, at least for the time being. The other opinion was that, whatever these institutions may say, it is generally doubtful whether fairness can be guaranteed by voluntary controls alone, and animal experimentation cannot be treated as an exception. So this issue will be

discussed again in the future.

Concerning industrial animals, there was an opinion that the five freedoms should be more clearly stated. However, the subcommittee concluded that, since the five freedoms apply not only to industrial animals but to all animals kept by humans, it would be more appropriate to clearly state the five freedoms as a philosophy applied to animals as a whole.

With that, I complete my summary of the subcommittee's discussions on eight major tasks applicable to the revision of the Animal Welfare Act.

Thank you very much for listening.

The Animal Welfare Act and Dog Welfare 動物愛護法とイヌの福祉

Yoshihiro HAYASHI,
Professor,
Tokyo University of
Agriculture
東京農業大学教授
林 良博

【Slide 1】

動物愛護管理法の改正の効果(平成22年時点)

- **動物取扱業の規制対象業種の拡大**
改正動物愛護管理法によって動物取扱業の登録施設数が**約1.7倍に増加した**
(平成17年度末:19,893 → 平成21年4月1日:36,101)
- **実験動物の適正な取扱いの推進**
国内の実験動物を取り扱う施設に対して、「実験動物の飼養並びに苦痛の軽減に関する基準」等の遵守状況について実態を把握するため、アンケート調査を実施された。
- **産業動物の適正な取扱いの推進**
環境省において「産業動物の飼養及び保管に関する基準」(昭和62年10月9日総理府告示第22号)の見直しについて検討された。

【Slide 5】

中央環境審議会動物愛護部会(第26回)が、**平成22年7月15日(木)**に、環境省第一会議室において開催され、(1)動物愛護管理基本指針の点検 報告のあと、**(2)小委員会が設置された。**

The Subcommittee to study the welfare and management of animals was set up under the Animal Welfare Working Group of Japan's Ministry of the Environment's Central Environmental Council on **July 15th, 2010.**

【Slide 2】

答申1:動物取扱業の適正化

- **深夜販売を禁止。**夜8時以降の幼齢動物(イヌ・ネコ)の展示販売を禁止。
- **展示販売時間の総量を規制。**十分な休息時間をとることが必要。動物へのストレスを軽減するためには、購入者の利便性を制約することは許容される。
- **移動販売は、動物の健康と安全に支障をきたす場合には、なんらかの規制が必要。**
- **インターネット販売は、対面販売や現物確認の義務化が必要。**
- **オークションは、市場の公開等の透明性を確保。**

【Slide 6】

動物愛護管理のあり方検討小委員会は 25回の検討を重ねた

The subcommittee met 25 times between August 2010 and December 2011.

すなわち、第1回の平成22年8月から、最終回(第25)回の平成23年12月まで、**17カ月間に25回開催。**2時間の開催時間も、途中から2.5時間に延長

【Slide 3】

答申2:犬猫の幼齢動物の販売日齢

- この課題は、前回の法改正から宿題となっていたものである。
したがって、**検討の優先順位は高い。**
- 今回、具体的な数値を答申した。
45日齢、7週齢、8週齢の三案。
(民主党は8週齢、公明党は7週齢を支持)

【Slide 7】

動物愛護管理法の認知度(平成22年度時点)

- 現時点の「動物愛護管理法」の認知度は約67% ※。法律の内容まで知っている人の比率は約24%にとどまっていた。
- 犬猫の不妊・去勢措置の実施率は、犬で約42%、**猫で約83%**であった。
- 動物ID普及推進会議(AIPO)へのマイクロチップの登録数が、**約33万件に増加**(H18年度末:6万件)。

※環境省による一般市民を対象としたアンケート調査(平成21年度に実施)、インターネットによる無作為抽出調査。サンプル数2,505

【Slide 4】

答申3:イヌ・ネコの繁殖制限

繁殖を業とする事業者に対する規制。
母体を健全に守るために、繁殖回数および繁殖間隔の規制が必要である。
一方、品種の違いによって一律の規制が困難であるという意見もある。

答申4:飼育施設の適正化

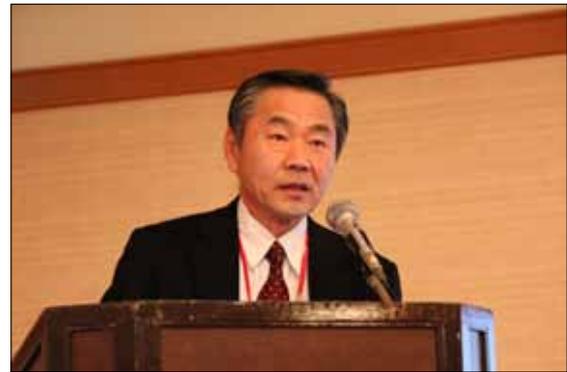
動物種や品種に合わせた飼育施設が必要。
数値基準は、可能な限り、**科学的根拠に基づく必要。**
専門家で構成される委員会 で論議すべき。

【Slide 8】

答申5:業種追加の検討

- 動物の死体火葬・埋葬業
動物が命あるものという定義からみて、現状では**否定的意見が大勢**。
- 両生類・魚類販売業者
時期尚早との意見が大勢。
- 実験動物生産業者については、**賛否両論を併記**。
- 老犬・老猫ホームは、**登録が必要**。
- 動物愛護団体は、**他とは異なる対応が必要**。
- 専門学校等の教育目的の団体は、なんらかの形で**枠組みに入れること**を検討。

【Slide 9】



答申6:緩和すべき事項

- 年1回の研修は、動物病院や動物園・水族館など専門性の高い業種については、ある程度の工夫が必要。
- 動物種によっては、さらに厳格な説明すべき項目がある半面、少ない説明で十分な場合があるとの意見があり、きめ細やかな説明項目の設定を検討する。

【Slide 10】

答申7:罰則の引き上げ

前回の改正でも罰則を引き上げたが、

- **環境省で所管している外来生物法**では、個人懲役3年、罰則300万、法人1億円。
- 他の法律、たとえば食品衛生法も改正時に**厳しい罰則を定めた**という経緯がある。
- 動愛法も、再度引き上げることが必要。

【Slide 11】

答申8:実験動物と産業動物の福祉

- 前回の法改正で3Rを導入した結果、大学、製薬メーカー、化粧品業界などは、協議会を設けて**3Rを遵守している**。
- しかし大学でも様々な学部があり、食品メーカーなどでも実験動物を用いているところがあり、全体が把握できていない状況がある。
- 届出制、あるいは登録制を導入するか、それ以外の何らかの仕組みをつくるのか、今後の検討が必要。
- 「**五つの自由**」の概念を、産業動物に限定せず、動物全体に対する理念として明記する。

【Slide 12】

こころのワクチン

A Mind Vaccine

もみの木動物病院（神戸市）獣医師・村田 香織

Kaori MURATA, Veterinarian, Mominoki Animal Clinic, Kobe City



I am Kaori Murata, of the Mominoki Animal Clinic in Kobe City, and I am very happy to be here with you today.

I've been listening to what everyone has been saying over the past two days, and I have been very impressed by all the passionate interest shown in the various subjects under discussion. This is a really wonderful conference, and I would like to express my gratitude to Knots and to all the people involved with organizing the event for their splendid efforts. Thank you very much.

At Mominoki Animal Clinic, in addition to making ordinary veterinary examinations, I have been involved for many years in counseling about pet behavioral problems, mostly concerning dogs but also including cats on occasion. In fact, a lot more people are troubled by dog problem behavior than with cat problem behavior. Today, we have listened to various stories about the benefits of keeping pets, although nobody can know in advance whether living with a pet will be good for their health. Perhaps surprisingly, it can become a constant worry or headache. In some cases pets are abandoned for precisely this reason, and in other cases keeping pets may cause trouble for the neighbors. Over many years, I have been tackling the behavioral problems of adult dogs. Treatment can take a great deal of effort and in a significant number of cases the animals cannot be cured completely. But in any event, treating them takes time and perseverance. Comparatively speaking, it is much easier to prevent problem behavior from emerging by properly training dogs when they are still puppies. This yields much more fruitful results with much less effort.

In a way, preventing problem behavior is similar to

infectious disease prevention. We've all heard about a lot of frightening infectious diseases that, once we are infected there is a chance we may die, and in order to be cured we may have to undergo a very long period of treatment. However, if we are inoculated against such diseases in advance with a vaccine, we can be protected against the risk of infection. So, in order to protect against dog problem behavior (and cat problem behavior too), I attempt to build strong ties and good relationships between animals and their owners. This kind of thing, which includes puppy and kitten training, can be called a "psychological vaccine".

In the course of my work I constantly talk with pet owners, and I invariably tell them that if they are keeping pets, they should follow three rules. The first rule is that owners should enjoy life with their pets. The second rule is that the pets should be happy. And the third rule is that keeping pets should not cause trouble for the surrounding people. I ask pet owners to follow these three rules. These are the activities of the Japanese Animal Hospital Association's (JAHA) Companion Animal Partnership Program (CAPP). Dr. Shibanaï first started conducting these activities in Japan about 20 years ago. These pets make the surrounding people happy rather than causing them trouble. If pets can reach this stage, this is a very nice way of curing them of bad behavior.

There are three steps we need to take in order to live happily by following these rules. Today, Mr. Nagamura, President of the Japan Kennel Club is here with us. Following on from this morning's talk about matching owners with pets, if you are going to choose a pedigree dog, particularly in consideration of your own lifestyle

and living environment, the selection of the breed is very important.

To fulfill the second rule requires that we satisfy the needs of our pets, including by feeding our dogs and cats suitable food, giving them sufficient exercise and opportunities for play. On top of this, I think it is essential to provide pets with education and training so that they can live happily in human society.

Now, it's clear that there are many unhappy pets just as there are unhappy owners, and also that many pet owners struggle with all kinds of problem behavior. I think that the short cut to reducing such problems relates to increasing the number of happy pets and owners bound together by strong mutual ties. What animal hospitals can do towards starting this off is to hold "puppy classes". There are lots of other things we can do as well, but puppy classes are a good beginning. So that's where we have started.

Today we don't have a lot of time so I can't go into much detail, but I would like to talk simply about two things dogs learn together with their owners at these puppy classes. Puppies' brains are extremely malleable and, with the right kind of training, they learn suitable behavior very rapidly. But they can also learn unsuitable behavior just as easily. It seems that the owners and dogs continue to build extremely good relationships after the classes are finished. The owners who visit our hospital for disease prevention or treatment purposes have built up very good relationships with their pets. They look so happy together it makes me smile when I see them. I always feel it is very important to educate puppies.

Today I would like to talk in particular about two of these practices. First of all, there is the matter of socialization. For example, dogs should be able to enjoy interacting with people other than their owners. If the dogs cannot achieve this then at least I would like to see a situation where the dogs are OK and calm with other people.

Secondly is the matter of other dogs. Ideally dogs can

enjoy interacting or playing with other members of their species. Even if that is too much to expect, it is still greatly preferable if they can be trained to be at ease and relaxed around other dogs.

There's a saying about the future that 'darkness is one step ahead'. Last year Japan experienced a major earthquake disaster and for anyone like me who has had a certain amount of life experience, this saying has been engraved on our hearts many times. Whenever something untoward happens, I recall this saying, and pets, whose life spans are very short compared with ours, also have a variety of experiences during their lives. From the pets' point of view, we humans are simply another species of animal. And while they live among us in human society, they lack the means to obtain the verbal information we enjoy. So if a dog's life is like a human life, the darkness really is one step ahead.

For example, in the case of communication between people, if you say to your mother, "From tomorrow, I'll be going away for a week on a short trip with my friend, OK?" your mother is unlikely to be worried. But if you go away on a trip without your dog, as far as your dog is concerned, you have simply disappeared. A dog doesn't know when its owner will return. There is absolutely no way that you can convey the information of your return date to the dog. During the course of their lifetime, perhaps well over ten years, dogs have to accept all kinds of change within their living environment. In order for them to be able to accept these changes contentedly, it is vitally important that they are properly educated when they are puppies.

For instance, there may be times when their owner has to go into hospital. And there are all kinds of other reasons why a person may no longer be able to keep a dog. If this occurs, it is much better for a dog if it can get on well with other dogs, animals and people. Likewise, if it can live happily with a new family, or within a group living at an evacuation center if needs be. If a dog is unable to do this, it is likely to be very unhappy if separated from its original owner.

This is a photo showing the staff and animals at our hospital. If people and dogs (and in some cases cats) can get along well with each other like this, then these animals will be able to live safe and secure lives. This is one of the chief aims of the education and training we give to puppies.

These puppies have come to the hospital for counseling. Now I'd like to show you a video I took at my own home. It's a video of some dogs that had not learned to socialize properly.

(Explanation while showing video)

We kept this dog for a while. The surrounding dogs are my own and my staff's dogs, and this dog is afraid of them. So it is being kept in a cage. It constantly exhibits menacing behavior to the others so they are barking in turn, not because they are mean, but because they are afraid. The other dogs are socialized animals so they consider this dog to be a problem dog. Yet they don't fight back against it or anything like that. They do have a little trouble, but as such non-socialized dogs come to us quite often, the socialized dogs are now more used to this kind of thing. Dogs are animals that have an extremely strong instinct for sociality so after several days living together they usually get along with each other very well.

The dog on the opposite side is another dog that can't deal with other people. It is barking aggressively at the visitor but it had grown used to the surrounding dogs by this time. This dog, a Border Collie, is barking at this person so we do give it a caution. But when the person backs away, the dog quickly follows after them. Dogs that are easily scared often seem to behave like that. An easily scared dog will chase after a person moving away from them but will then run away scared if the person re-approaches. This is not a bad dog by any means, it is only that it didn't properly learn how to socialize with people as a puppy. It doesn't know the ways in which people and dogs communicate. We get consultations on this kind of thing a lot.

So, how can you make your dog act more friendly towards other dogs and people? Puppy class first of all

recommends to get various people to give the dog its favorite food while it is still a puppy. This will increase its sense of security. In this way, you can prevent the problems I mentioned earlier such as inappropriate barking at visitors. In puppy class, the participating owners and staff practice feeding the puppies their favorite foods. We tell the participants to first open their hand, then place the food on their palm, then offer it to the puppy. Many people hold the food between the tips of two fingers which sometimes means the puppy will unintentionally bite the fingers as it takes the food. This of course causes physical pain and fear to the giver. So we ask our participants to use their palm.

By nature, dogs do not really like being patted on the head, as most of you are probably aware. They are especially uncomfortable if it happens without warning from a person they are unfamiliar with. However, people in general do like to touch dogs on the head. So if possible it is preferable, from the standpoint of the dogs' future happiness within human society, if they are trained using rewards to accept being patted on the head.

If you have a dog that leans its head away because it doesn't like to be patted on the head, it can be trained to accept a pat by holding a reward in one hand and then touching the dog's head while allowing it to eat the reward. This training can be carried out by a number of people in turn, such as veterinarians, veterinary nurses, etc.

We also set aside time for communication between dogs by making time for them to interact with each other and for puppies to enjoy playing together.

By giving puppies socialization training like this consciously, we can achieve a lot to make it easier for dogs to live comfortably in human society.

Everybody, I've got something now that I'd like to ask you to think about. Take a look at these two photographs. Which do you think is the best photo from the standpoint of socialization? First, raise your hand if you think the photo on the left is best. Now,

raise your hand if you think the photo on the right is the best. I see that more people think the one on the right is the best. This is a picture that would make anyone smile—showing children with beaming faces as they hug puppies. Here are the puppies and here are our staff. These photos show puppies getting rewards from the staff, and occasionally the staff members pass the rewards to children so that they can give them to the puppies.

This is the right way. Indeed, this way is overwhelmingly better. In my opinion, the photo on the right side shows that it is best not to do this training too suddenly. Humans are animals that only hold small children in the course of raising them. They also like to hold stuffed animal toys and small live animals. So these children enjoy holding puppies. However, from the puppies' standpoint children are strangers who are much bigger than them as well as being monster-like in their behavior. Some are very loud and some treat animals roughly. In most cases, to be lifted into the arms of such children is a terrifying experience for a puppy.

So, don't pick up the animals. But how about reward-giving? Getting treats is a pleasant experience for dogs, of course. In this photo, first, the staff member tells the child that the dog is allowed to eat the reward, confirming also whether the dog should eat it when the reward is handed or after being held by the child. It is important to do things in this order.

I often explain it to pet owners as follows; when somebody moves in next door, if they say "nice to meet you... this is just a small token" and bring you a present of something nice to eat, you are likely to be pleased with them.

Conversely, if the people moving in next door come up to you and touch you without warning, you will probably not like it at all. In a similar way, a puppy will regard a pat on the head or a food present from a stranger as very different things.

From a human standpoint, some may wonder "why

not?" But I ask you to please consider such things when you are trying to socialize your dog. Actually, a lot of people who come to us say such things as "I tried hard to make my dog get on with other people, but the dog just became afraid of them."

Recently, so much information has become available and many more people are aware of the importance of dogs being socialized. However, some of them run into trouble when trying to follow this trend. The reason is that, knowing of the need for socialization, the owner and their dog may participate in a dog run to train the dog to be unafraid of other dogs. But this experience in itself can result in the dog coming to dislike other dogs. Another problem, as encountered by many owners and dogs, is that an owner may let their dog be petted by many other people in an attempt to socialize them. Instead the dog may start growling. So when owners do attempt to socialize their dogs, they have to do it right.

If any of you have dogs that will not accept rewards from anyone other yourself, please visit us for consultation. If you let other people touch your dog without proper knowledge, the results could be counterproductive.

This photograph shows our dogs in contact with children. As I told you earlier, most dogs don't like to be surrounded by a group of children or by children with loud voices wanting to pick them up. In the case of large dogs bigger than the children, this is usually OK, but small dogs and puppies generally don't like to be treated this way. Whatever the case, I urge everyone to ensure that the contact between dogs and children is a pleasant experience for both sides. For instance, if you let a child give your dog a reward, check how he or she is reacting. You can also let dogs demonstrate any special tricks they know, or let children play with them with the help of a toy.

These photos show our dogs enjoying contact with children. Here the dogs are performing. This is fun for them, and for the children, because they get a reward. So our dogs love children. But if this play ends up like the example I showed you earlier, there might be the

opposite effect, so please be careful when trying this out yourself.

It is ideal if puppies have the opportunity to attend a “puppy kindergarten”. This is our puppy kindergarten. Recently, the number of such facilities has been increasing and they can be very effective if run on the basis that they exist to provide various kinds of contact opportunity. If you have a puppy that can’t socialize with other dogs, or a puppy that has excess energy, I recommend you to take it along to a puppy kindergarten.

Another purpose of puppy class is to help dogs become accustomed to being examined and remain calm. Most dogs don’t like going to an animal hospital. Now, I will show you a video about some dogs that have visited our hospital.

(Explanation while showing video)

This dog is so angry that we can’t get it onto the examination table. They use an “Elizabethan” collar and make every effort but the vet and nursing staff cannot get it up onto the table. Even the owner is unable to put the dog onto the table by carrying it. Although we tried hard, we didn’t succeed in getting this dog onto the examination table. So you can see how tough our job can be.

This next one is the same. We have to muzzle this dog because it bites. But things don’t go smoothly. Nowadays we tell owners to first get their dog used to wearing a muzzle and then bring it to the hospital. That way we can avoid this kind of trouble.

The dog at the bottom is an in-patient. Whenever I tried to open the door before treatment, the dog would get angry like this. If things remained as they were, I would not be able to make a thorough examination. As was mentioned earlier, when a dog is under long-term stress its immune function can be compromised and it loses its appetite. This undermines the effectiveness of the medical care we provide. Moreover, I think it is very hard for an owner to watch while their pet is placed under this much stress. If I were in that situation, I

would really hate it. I have had many cases where owners cannot stand the idea of their pet being under such heavy stress. So they hesitate to bring the animal to the vet and let matters rest until the animal develops a more serious condition.

The main reason why dogs can become aggressive isn’t that they are spoiled or that they think they are superior to others, as is often said, but simply because they are scared. First, a dog’s trusted owner suddenly takes it to an unfamiliar place, where a person dressed in white pushes it down on a table and places a stethoscope on its chest. The dog has no idea why this is being done. It’s the same with an otoscope. The dog doesn’t understand what it is. Then, right after that they are likely to experience some painful procedure. It is only natural that some dogs become aggressive in these circumstances due to fear and insecurity.

I talk in various forums, so some of you may already have heard what I am going to say next. About ten years ago, I learned a lot from the experience of one of my patients, a Golden Retriever. This dog, a bitch, came to our place for counseling because she had a problem. She would growl or become aggressive whenever unfamiliar people or dogs came too close. The reason was that she had been entrusted to a breeder to be bred from. Her behavior had become like that after the time at the breeders. We knew this because she had never acted like this prior to that time. So we know that she must have had a very traumatic experience while she was at the breeder’s.

Of course, the underlying problem was that this dog had not been sufficiently socialized. I felt a lot of anger toward the breeder with thoughts that the breeder must have done something bad, although I didn’t know what it was. As a result the quality of life for the dog and also her owner was severely eroded.

But then I had a sudden “aha” moment and the scales, as they say, fell from my eyes. I realized that we must be doing the same thing at our hospital. Working as a veterinarian, although what we were doing was ordinary veterinary medical practice, we were also

causing trauma to our animal patients.

Actually, quite a few pet dogs are brought to us for counseling because they begin to behave aggressively as a result of their experiences while being treated at the animal hospital. For example, there was a Border Collie that suffered bleeding when it had its nails cut in hospital. Ever since, this dog had become aggressive so the owner brought it in for counseling. The dog shown here is a male Labrador Retriever puppy. He had been neutered but when it came to the time for the vet removed the stitches he became violent. He would not turn over, so had to be overpowered and held down by several male vets. Since that time, this dog would habitually attack whenever he saw unknown males. He was brought to us for counseling too.

Dogs can't understand what we do in the course of medical practice. They interpret any kind of physical discomfort we cause them as abuse. In many cases the medical treatment itself is experienced as a form of abuse by the dogs. I now realize that, depending on how we treat our canine patients, we may well be inflicting trauma on them.

To prevent this, it is very important to establish a positive environment before we do anything that a dog may find unpleasant. To experience such a positive environment, it can be very effective for a young dog if they attend puppy classes first. While there they can spend time pleasantly with the staff of the animal hospital. Next, I will show you how delightfully dogs visit our hospital.

(Explanation while showing video)

I was very glad to see this dog come to our hospital with such evident pleasure. Since we don't have a lot of time, I'll skip through this quickly. This dog also came to visit us very happily. In the case of Japanese dogs, unless they attend puppy classes regularly, they are liable to grow up as 'hospital haters'. This puppy is a Rottweiler and, as you can see, it voluntarily goes up onto the examination table. With the English Sheepdog I showed you earlier, we had to try very hard just to get it on the examination table. This dog came in for

stitches removal after spaying surgery. I was careful not to turn the patient over suddenly and remove the stitches. Instead, I took a little time to give the dog a treat which only took 30 seconds or so. These dogs don't like to be handled quickly or roughly.

This dog has come to a standstill in front of our hospital during a walk because it actually wants to go into the hospital. The owner had only been taking it for a walk and passing by the hospital, but the dog is determined to go inside. So I told them they had better come in and let me at least weigh the dog. That is how much the dog wanted to come inside. Conversely, in the old days, owners would often tell us how their dog would freeze when arriving near the hospital and realizing that this was the destination. Such dogs would even try to go home, so it was hard work just to get them into the hospital building. Nowadays we have the opposite situation with the dogs so eager to come in that their owners have to stop them. I'm glad to see this change.

This dog has moved away, but I received a New Year's card from the owner. The message on the card said, "I feel sorry for Kei-chan (the dog's name) because she can't visit your hospital any more." It made me happy to think that the hospital is loved so much.

This is a dog that graduated from our puppy class. He is visiting the hospital to make a blood donation. The dog thinks the hospital is a pleasant place, so he is well behaved as we collect the blood. Owners would not find it acceptable if we had to collect blood by putting their dog under anesthetic or forcefully holding it down. They would be less likely to allow their dog to donate blood for the benefit of some other dog. But in this case we have won the owner's full cooperation because the dog visits the hospital so happily.

So far, I have talked about the desirability of socializing pets and getting them used to visiting an animal hospital. Another important thing I would like to bring to your attention is 'handling'. By this I refer to training pets so that the owner and the vet can touch the animal anywhere. People should train their pets so that it can accept necessary care. This is also a very important

consideration.

This shows the English Sheepdog puppy introduced earlier undergoing sedation. The dog had slipped on a wooden floor and hurt its leg. As it needs to undergo an x-ray we have to sedate it in order to keep it still. The hair on the soles of its feet had grown long which is why it had slipped. But because the owner had been unable to touch the dog's feet, they had been unable to cut the hair.

Here, we are cutting the dog's nails. With this dog, even nail cutting requires sedation. The dog's ear had also become inflamed with Otitis externa due to a fungal infection but the owner had not even been able to apply eardrops at home. If a dog gets into such a state, both the owner and the dog are bound to be distressed. According to the owner, when the dog was small, they had been able to do anything to the dog. The owner had forcefully carried out ear cleaning, nail cutting, etc., even when the dog disliked them.

It is obvious that if an owner forcefully does certain things to a dog when it is a puppy, which it finds unpleasant, it is more than likely to challenge its owner when it grows bigger. It may even start threatening people who attempt to do these things. After a dog learns that it can protect itself by showing its teeth and growling, it may habitually bite people when placed in an unpleasant situation. So we shouldn't encourage dogs to learn to do that sort of thing.

That is why it is important not to do things forcefully. Instead we must gently accustom dogs to accept things while they are still puppies so that they learn to accept the daily care they will need as pets.

This dog has come in for dental scaling. Because it would turn angry when anybody touched its mouth the owner had been unable to brush its teeth. So we had to put it under anesthetic, at which time we noticed that it had a tumor.

This dog is a similar case. The owner couldn't touch its mouth, but it was losing its appetite and so it was

brought along to the hospital. The dog has already developed quite severe periodontal disease. It is a little difficult to see in this picture but this part here is a tumor. The owner had discovered it the day before and brought the dog to the hospital. In the case of the Japanese shiba dog breed, this part is not normally noticeable in healthy individuals. So unless the owner regularly touches their dog or checks its tummy by turning the animal over, a disease may remain unnoticed until it develops to the stage shown here. Accordingly, in order to detect a disease at an early stage, it is very important that owner and dog have time for real contact which should include touching the dog's body and various forms of care.

Unfortunately, in the case of the previous dog, the cancer had already spread to other parts of its body. The question is, in order to make the early detection of disease easier, how can we train dogs to allow people to touch them more thoroughly? This is actually unexpectedly easy to accomplish. So I would like puppy owners to try it. And even if you have an adult dog, you can still train them if you take a bit of time. The method I often use in puppy class is to use dry food. General nutritional food is OK. You should practice touching your dog's body while giving it dry food. The dog is concentrating mostly on the food so does not mind being touched at the same time. In this way, the dog gets used to being touched. The next step is to deliver the food after the touch and with practice you will be able to touch the dog anywhere.

Here, an owner is using food as a reward after touching the dog. Many dogs dislike having their ears, eyes, tail or feet touched. But if you practice, it is very easy to condition the dog to allow you to touch in these places. This method is introduced in detail in my book *A Mind Vaccine*. Please read it if you are interested.

First, practice touching the dog, and then provide the dog with food. In this way, the dog won't care about being touched at all. During handling, touch the dog's body to let them get used to being touched. Do this, not by forcefully holding them down, but by pleasantly and gently associating touch with their favorite things.

This is an effective way for you to train your dog for handling.

This dog has developed periodontal disease. The owner hadn't noticed the problem yet even though it had reached this stage because the owner never touches the dog. By contrast, this dog has clean teeth. Do you know what percentage of dogs and cats over three years of age have periodontal disease? How many people think it's 50%? I'm sure you already know this, but it's actually about 80% or more. Unless pets receive proper dental care, we can consider that almost all dogs and cats will develop periodontal disease.

Periodontal disease is not only a problem for the mouth area. The bacteria causing the disease also spread via the bloodstream. These can have a variety of negative consequences for the internal organs including the liver, heart and lungs, as well as on the joints. So, and this applies to people as well, periodontal disease affects much more than just the teeth. This is why dental care is very important. How many of you here today keep a dog as a pet? Please raise your hands. And how many of you brush your dog's teeth? Thank you. I'm happy that so many of you are doing this. Brushing your pet's teeth is also a good way of helping prevent zoonotic infections, which we have been hearing a lot about at this conference.

In our profession we cannot avoid being bitten by dogs or cats from time to time. But if we are bitten by an animal which has periodontal disease we may develop a fever and the area around the wound can swell up. This is because large numbers of bacteria live on the animals' teeth and gums. So please try to give your pet proper dental care. However, even the owners who are aware of the importance of dental care often find that their pet will not allow them to brush their teeth. But if the owner can get the pet used to teeth-brushing from the time when they are a puppy or kitten, then most pets will consent.

It is not an easy thing to brush an animal's teeth perfectly. It is a technique that requires continuous training. If the owner can at least take a look inside the

mouth of their pet, it can make an enormous difference. Simply doing this can enable them to discover if anything abnormal is going on at an early stage.

This puppy was forced to submit to having its teeth brushed by its owner, with the result that it became like this. To avoid having your pet become like this, practice touching the pet's mouth using food. In order to brush the teeth, you will need to pull back the animal's lips, something which needs to be practiced properly. When the pet begins to allow you to do this with ease, you can start using the toothbrush for the first time. Pay close attention to this. Limit the time you apply the toothbrush to the teeth to just one second. Don't scrub the teeth suddenly. Brush for just a second. Then give the animal a reward. If you try to brush the pet's teeth insistently, the pet will hate it. So perform brushing little by little and associate the brushing with a reward. Don't keep brushing for a long time.

Next, this video shows animals that will consent to being brushed more. These are our own dogs. They look like they enjoy having their teeth brushed very much. If your pet tries to run away when it sees a toothbrush, you are brushing in the wrong way. It is very important for pet owners to perform tooth brushing in a way that their pets accept happily. If the pets can accept it happily, then tooth brushing becomes a peaceful experience for the owners too. Owners should not let tooth brushing become an occasion for fighting. Although I am very busy, I love this time. When I brush an animal's teeth, I become calm, relaxed and happy. Perhaps the oxytocin is flowing.

If we practice little by little, anybody can brush an animal's teeth. Perhaps those of you who put your hands up when I asked if you brushed your pets' teeth are enjoying this activity, and your pets are enjoying it too. Neither owners nor pets can continue doing something indefinitely if they don't enjoy it.

Although this video only last for two minutes, I actually perform tooth brushing for approximately five minutes. This is our puppy kindergarten. Our staff are telling the dogs that they are about to get their teeth brushed. The

dogs look as happy as if they were going to be given food. This is how it should be when dogs are shown a toothbrush. The dogs are eagerly awaiting their turn for the treatment, as if to say, "My turn! My turn!" That's because they find brushing to be a pleasant experience.

This is my dog getting its teeth brushed by my daughter. The dog is completely relaxed. It is not good when a dog doesn't trust its owner. But when there is a total relationship of trust between owner and pet, the pet can relax. In that way, the time they spend together will be a comfortable time for the dog and a happy time for the owner. So it is extremely important to establish a relationship of trust between owner and pet.

This is the final picture for today. These are my pets. As I said regarding socialization, by giving pets the experience of contact with other animals and people while they are still puppies or kittens, we can help both people and pets live together in a friendly atmosphere like this. So, while it is still a puppy or kitten, please give your pet the education it needs. That way it can live happily within human society. Or, in other words, give your pet a mind vaccine.

Thank you very much for listening.

こころのワクチン —子犬に教える、人と幸せに暮らす方法—



第2回神戸アニマルケア国際会議
2012年2月19日 神戸ポートピアホテル
もみの木動物病院 村田香織

【Slide 1】

社会化

- ・家族以外の人と楽しくふれあうことができる(または一緒にいても落ち着いていられる)
- ・他の犬と楽しく遊ぶことができる(または一緒にいても落ち着いていられる)



【Slide 5】

ペットの飼い主が守るべき3つのルール

- 1) 飼い主がペットとの生活を楽しんでいること
- 2) ペットが幸せであること
- 3) 周囲の人に迷惑かけていないこと



【Slide 2】

社会化トレーニングの必要性 社会化不足の犬は・・・



【Slide 6】

ルールを守り、幸せに暮らすための3つのステップ

- 1) 適切なペットを選ぶ
- 2) ペットのニーズを満たし、信頼関係を築く
- 3) 共に暮らしていく上で必要なしつけをする。



【Slide 3】

やってみよう! 知らない人からご褒美をもらう

パーの手で 頭を撫でる—ご褒美



【Slide 7】

パピークラスはこころのワクチン

- 社会化**
人や動物、日常生活レベルの刺激の中で安心していられる
- ハンドリング**
日常のケアや動物病院での診察を受け入れることができる
- リーダーシップ**
人間社会のルールを守り快適に暮らせる
- 子犬特有の問題行動の対処と予防
- 正しい食事管理や健康管理



【Slide 4】





【Slide 8】



【Slide 12】



【Slide 9】



【Slide 13】



【Slide 10】



【Slide 14】



【Slide 11】



【Slide 15】



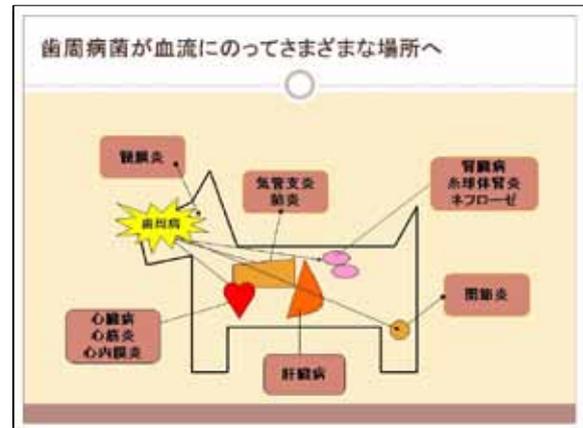
【Slide 16】



【Slide 20】



【Slide 17】



【Slide 21】



【Slide 18】



【Slide 22】



【Slide 19】





【Slide 23】



【Slide 24】



【Slide 25】



【Slide 26】

ペットから学んだ異文化

Learning About Other Cultures from Pets

マースジャパン リミテッド 副社長・石山 恒
Hisashi ISHIYAMA, Vice President,
Mars Japan Limited



Hello everybody. For the next 30 minutes, I would like to talk about pets from a somewhat different point of view to that of today's other speakers.

I have been working in the pet food industry for the past 30 years. The company I currently work for sells a huge amount of pet food all over the world. Over the course of these 30 years I have attended numerous conferences around the world and I paid repeated visits to approximately 30 countries to attend product development meetings. In the course of my travels I have met a great number of people and had countless opportunities to see how people relate to their pets in different ways and in different places.

These days, in many countries that were not previously among the pet food industry's target markets, as average incomes have risen and more people have begun to keep pets, a growing number of animals are being kept as pets. So the size of the pet food market is expanding. Countries such as Russia and China have not yet grown into such large pet food markets, but as their national income levels rise, they will become huge markets. Anticipating the future value of such markets, my company is now selling pet food in over 100 countries and producing pet food at 62 factories dotted around the globe. Each year worldwide - mainly in America, Asia and Europe - we sell a total of about ten times the volume of pet food that the Japanese pet food industry sells

Overall, in retail price terms, the world pet food market is worth approximately 7 trillion yen. According to research conducted by my company, the total number of dogs or cats kept by people is estimated at about 700 million worldwide. These numbers have been

continuously expanding up to now, and we consider it to be a trend that will continue for the foreseeable future. For example, in the United States, about 170 million pet dogs and cats are now being kept, and this number is continuing to increase.

On this map, the locations marked in red represent the places I have visited on business trips, and those marked in blue represent the places I have lived during the course of my work. The reason why I have been running around the world so much is that the pet food industry has become enormous. The industry started over a century ago in the United States and over 80 years ago in Europe. In Japan, it began to develop about 40 years ago.

As in any business, when a company tries to develop a new market, the usual method is to introduce products that have already been successful in existing large markets. I think major representative Japanese companies such as Sony and Toyota operate in this way. This is an easy method when dealing with functional products. But in the case of some products, such as pet foods, which combine functional and cultural attributes, a number of things can occur that impede cultural transfer.

In the figure shown here, the items along the axis on the right are products sold according to their function without much consideration to cultural differences. Examples of such products include cars, watches and cameras. In the case of cars, there are some slight differences and functionally modifications for use in countries with left-hand or right-hand drive traffic systems and to meet the requirements of various other

national laws. And where consumer tastes differ from country to country, product design may be varied to reflect these differences. But even so, the structural parts of cars do not change very much.

However, pet food is a product that belongs squarely on the left side of the figure. The bottom of the left side is set at zero and the top at 100, so you can see that culture exerts a considerable influence over pet food. For instance, many Japanese people tend to keep small dogs. From a global perspective, both the overall numbers and the ratio of very small dogs kept in Japan are high. The kind of food that dogs prefer to eat does not differ very much from country to country, but this isn't the case with cats. For example, in Germany approximately 80% of cats prefer to eat meat, but in Japan the corresponding ratio is less than 5%. There is a tendency for people to choose food for their pets based on what has been given to similar animals in their country traditionally, and also based on the common idea that food nutritious enough for people must be sufficiently nutritious for pets too. Likewise, each country's culinary culture is reflected in the design of its pet food.

In Western-style meals, meat is considered to be the central item, but in Japanese-style meals, vegetables and fish generally play this role. So although the wild ancestors of dogs and cats would not have eaten vegetables at all, in Japanese pet food, both dog food and cat food contains vegetables. However, cats would never eat vegetables on their own initiative, and if the carbohydrate content of the food was too high, they would not be able to digest it. In ways such as this, a country's culinary culture has a large influence on the design of its pet food.

When I put vegetables into pet food for the first time in 1987, the president of our US headquarters, who was on a visit to Japan, asked me, "When was the last time you saw a dog walking into the garden to eat the vegetables?" Then I replied, "No, I've never seen a dog go into a vegetable patch, but nor have I ever seen a cat go into a pond, swim around and catch a fish. But 95% of cats in Japan love fish." The foods that have

traditionally been given to pets in a given country and the way pets have lived there have a major influence on pet food design.

In this next figure, the bottom axis is a chronological record, showing how long it takes for pet food to provide the necessary calories to maintain a dog or cat's life. The United States is at the top. Pet food was put on sale first in the US and then introduced into the UK, and the last of the second group of countries where it was introduced were Germany and France. This figure shows that pet food consumption spread rapidly once the products and communication methods improved.

The horizontal axis bar shows how long it took to reach the same level of calorie adequacy in different countries. The figure shows that the newer the market, the faster pet food popularization occurred in line with improved products and communication methods. For example, communication with consumers was originally conducted via magazines and the radio. In the 1950s, the first television advertisements were aired. This led to a dramatic leap forward in the effectiveness of pet food advertising.

In order to transfer successful cases into new markets, we generally translate the stories of how the pet food became popular with consumers in successful countries. The stories are used in the new countries. In this translation process, what methods of persuasion do we have to include? We try to differentiate the product itself from the alternatives, explain the benefits it offers and why the product provides these benefits. I personally had a lot of difficulty carrying out this task in the Japanese language.

This was because the Japanese language doesn't have a wide range of comparative adjectives or verbs. In English, it is easy to say "good", "better", and "best", or "strong", "stronger" and "strongest". But in Japanese, we can only really say "better" and "stronger". So in Japanese, there is no practical method of comparison apart from to modify nouns by attaching an adjective or adverb. In the case of verbs too, there are no comparatives. In Japanese, we rarely make use of

comparative expressions and there are few absolute expressions either. The Japanese language has plenty of static expressions, but is relatively poor in terms of dynamic expressions.

I was bothered about where this difference in expressive style came from, and it took me three years before I came to a satisfactory conclusion. There are very few books in Japan that mention this sort of subject. The only one I could find was a book on the subject of comparative pet cultures, written by Giichi Kamo, a former president of Otaru University of Commerce. I couldn't find anything else. There were no books by Westerners who study the Japanese. Accordingly, I decided to find out for myself why this difference existed. So whenever I had a chance to make a business trip to Europe, I made a point of visiting the museums and art galleries in that place.

If you visit art galleries in particular, and you view pictures of members of the aristocracy painted in the eighteenth century, you will almost always find a realistically painted dog standing or sitting at the subject's feet. However, if we look at traditional Japanese ukiyo-e illustrations or hunting scenes, we very rarely come across depictions of dogs. And even when dogs do appear, they are never drawn in realistic proportions as they are in Western painting. This led me to think more about whether differences in the development of Western countries and Japan contributed to this result, or whether it was due to more fundamental differences between hunting peoples and agricultural peoples.

When I thought about this more deeply, I noticed that agricultural people tend to mostly work alone. Almost the only time they work in groups is when they are planting rice. On the other hand, hunting people work mostly as a team. In the hunting lifestyle, at certain times of the year, certain animals pass through certain places, and if the hunters do not work as a team, they would not be able to survive the winter. They would die from hunger due to food shortage. If you think about it, many Western sports that come from Northern Europe are team sports. Both soccer and rugby are

team sports in which each player's role is clear. On the other hand, most Japanese sports are undertaken alone or else one-on-one and there is a strong emphasis on harmony and coordination. Among hunting people, there is usually a person who takes a leadership role. Often this leader makes the decisions and his or her subordinates follow them. In Western countries, when a company is recruiting new employees, the company always tests candidates on their leadership qualities. It is generally considered that those lacking leadership qualities are inferior. I conclude that the differences between Japanese and Westerners stem largely from such differences in culture and in the process of social development.

Just now, I mentioned rice cultivation. At that time, I showed a figure. When one plants rice, if it takes a month for a person to plant an entire field moving from the left side to the right, it will be difficult to judge when the time is ripe to harvest at the various parts of the crop field. But if everybody plants a single paddy field of rice together, then they at least know that the correct harvesting time for all the rice will be the same.

I thought that the differences between how people in various countries treat cats and dogs have come about through culture and history. For this reason, 27 or 28 years ago, I concluded that the Japanese do not necessarily have to follow the Western style in their treatment of these pets.

For hunting people, it is important to know what kinds of animals are moving at what times, and it is necessary to formulate clear instructions about the roles and responsibilities of each member of the team. Also, working dogs are necessary. But in Japan, throughout the country's long history, people have rarely needed dogs in the course of their everyday lives. As an exception to this general statement, dogs were used by hunting communities in places such as Tohoku, and also by the Ainu in Hokkaido. I think much the same can also be said of the rest of Asia. A look at the different breeds of dog serves to illustrate this point. Currently, 389 dog breeds are approved by the FCI and almost all of these breeds originated in Europe.

By contrast, almost all native Japanese dogs are close relatives of the Shiba, which is hardly a special breed. These facts tend to support my theory.

Western people are very precise in their thinking, especially about the roles played by organizations and about responsibilities and instructions. They are generally much better at organizing things than we Japanese are.

In addition, over the past 30 years, perceptions toward animals have changed greatly in Japan, which means there has been a considerable shift in the relationships between people and dogs and cats. At the start of the 1980s, there were about 4.7 million dogs kept in Japan. At present, there are more than 10 million. So there has been an enormous increase in numbers over the past 25 years.

In the 1980s, the main reasons given by Japanese pet owners for buying pet food were price, taste and nutrition. Since then, their reasons for purchasing have changed greatly. This figure shows along the vertical axis how ordinary pet owners regard their relationship with their dog, for instance, as a family member, as a pet, or just an animal. In the old days, most dogs were kept outside, and many owners simply regarded them as animals. Some people did regard them as pets but very few thought of them as family members. However, according to a similar survey carried out recently, many dog owners now regard their dogs in the same way as they do their human family members. So nutrition has become a very important key driver for pet food purchasing. This is because the number of purebred small dogs kept as pets has increased significantly, and also because an overwhelming number of pet dogs are now kept inside the house.

In this conceptual diagram, small breeds are shown bottom right. This is an example from Australia. About 15 years ago, the average weight of dogs in Australia was about 25kg, but now it is down to 15kg. I think this is because, originally, the basic meaning of dogs in Western countries was as working animals. But as

culture has developed, the original role for dogs has mostly disappeared and the relationship between dog owner and dog has changed accordingly.

Also, 30 years ago, purebred dogs accounted for about 40% of pet dogs and the rest were mongrels. These days over 70% of pet dogs are purebred.

Let me tell you another interesting thing. Compared with pet owners in Western countries, Japanese pet owners try harder to maintain the health of their dogs and cats. On the average, Japanese pet owners take their animals to a veterinarian for a health examination 4.6 times per year. In the US, the corresponding figure is 2.1 times per year. These days, at least 91% of Japanese pet owners visit a vet at least once a year, whereas as recently as 30 years ago the rate was 45%. In the US, the number of owners who take their pet to the vet at least once a year is 81%. Accordingly, based on this data, we can say that compared with pet owners in other countries, Japanese owners tend to have the closest relationships with their dogs as family members.

This figure shows the results of two surveys that were conducted using the same methodology. The first was carried out 30 years ago and the second one two years ago. In these surveys, people were asked why they bought pet food and what was important when a dog became a member of the family. In 1982, the top reasons for buying pet food were that it seemed tasty and that it served its purpose in feeding pets. Today, however, 'peace of mind', 'safety', 'trustworthiness' and 'health' are the most important criteria, as you can see from this figure.

If we look at this on a country-by-country basis, the results are also very interesting. Our company conducted essentially the same survey in the UK, France and Germany. Although there were some slight differences in the questions asked, we can make a comparison with results obtained in the Japanese surveys. What the results reveal is that while in Japan, 'peace of mind' and 'safety' are considered the most important points, in Europe, the 'tastiness' is a very important reason for purchasing pet food. So it seems

that Japan's development process has been different compared to European countries. I feel that, to some extent, the ways in which people and dogs interact are different.

Next, I would like to speculate about the pet food industry in the future. As the number of single people increased and as the social advancement of women progressed in the West, the number of pet cats has increased significantly. Social advancement has gone hand-in-hand with later marriage, a reduced birth rate, smaller families and greater longevity. Also, internet-based communications in place of face-to-face meeting is contributing to a sense of increased alienation. Even within a single office, people are relying more and more on email for communication. When people speak face to face, their conversations tend to develop in various directions, but when exchanges are limited to email, one-way opinions and one-way responses are exchanged with little or no expansiveness. This has led people to become increasingly isolated socially.

Moreover, I am sure that many people are using Amazon and Rakuten on-line shopping to buy goods. These online retailers are so convenient that there is no longer any need to visit bricks and mortar shops. Technology will continue to progress and we will become even more out of touch with the natural world. Economic and social life is now going on 24 hours a day, and more and more people are living in high-rise apartment or condominium buildings. As a result of all these changes, human relations are becoming more and more diluted. The idea of close relations between near neighbors begins to sound like a very old-fashioned story, and people are suffering a sense of isolation. People these days are also tending to marry later, or to remain single, and to divorce in greater numbers than before. It would be wonderful if people could live together with others until the end of their days. But in many cases people have to live alone for long periods.

This sort of situation can act as a spur to animal companion activities. I have read several books about how to develop such activities, but relationships between animals and people have not yet been

systematically analyzed academically. Certainly, activities such as those conducted by the IAHAIO (International Association of Human Animal Interaction Organizations) have been ongoing for the past 30 years so far, but compared with human medicine I think the development of this field is 40 to 50 years behind the times.

So as to improve this situation, in future society, we need to raise recognition for the social importance of companion animals. Moreover, we need to promote the social acceptance of companion animals, as well as their training and vaccination. Indeed, we have to push these things forward rapidly from now on. We also have to promote the need for pet owners to take proper responsibility and adopt an appropriate manner. Otherwise, even when people are eager to live with companion animals, if this activity leads to social friction, not many people will affirm companion animal activities. I believe these things are important for us.

Major environmental changes may occur for short periods with increasing frequency in the future. As Charles Darwin argued in *On the Origin of Species*, it is not the most intelligent of the species that survive, nor is it the strongest. It is the one most able to adapt to changes in the environment. Today, with major changes occurring socially, people are suffering increasingly from isolation. Human relationships are becoming less and less substantial. In view of these various social phenomena, I believe that the importance of companion animals will continue to increase.

Thank you very much for listening.

ペットフードから学んだ異文化

石山恒

1

【Slide 1】

機能と文化

100%

0%

文化

機能

8

【Slide 5】

技術利益障壁

フラット化する世界:
安い労働市場と市場を求めて

9

【Slide 2】

認識の違い (1987)

“Ishi when was the last time you saw a dog walking into a garden and eating vegetable”

“John when was the last time you saw a cat swimming in a pond and catching fish”

どこの国の犬も肉を最も好むが猫は必ずしもそうではない

- ドイツ: 80%
- 日本: 5%

9

【Slide 6】

30年の間仕事で訪れたり居住した国々

10

【Slide 3】

成功事例の移転とスピード

充足率(%)

時間

- 製品の改良
- コミュニケーションの改善(方法、質)

10

【Slide 7】

成功事例の移転

市場

印改選

7

【Slide 4】

成功事例の移転

- 差別化
- 約束
- 説得

11

【Slide 8】

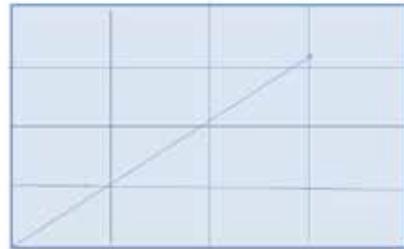
成功事例の移転

- 比較級の欠落
- 相対的 vs 絶対的
- 動的と静的表現
- 形容詞: より良い vs Good, Better, Best
より強い vs Strong, Stronger, Strongest
- 動詞: より好む vs Prefer

12

【Slide 9】

稲作: 和と村八分



13

【Slide 13】

成功事例の移転

なぜ

13

【Slide 10】

狩猟: 指揮と役割分担



17

【Slide 14】

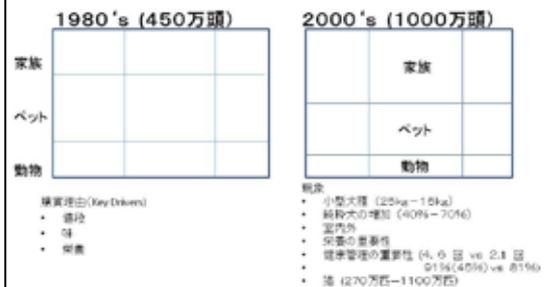
答えを求めて

- 本 (ペットの比較文化論: 加茂儀一“家畜文化史” — 法政大学出版局)
- 博物館 (大英博物館)
- 美術館

14

【Slide 11】

認識の変化



14

【Slide 15】

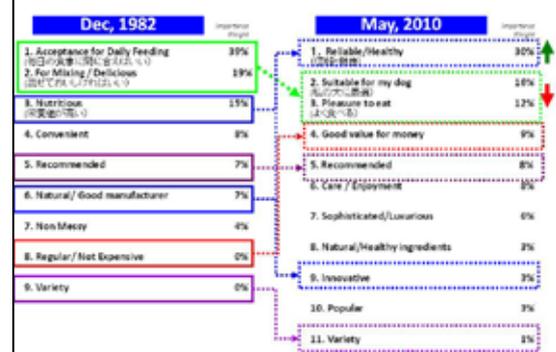
農耕と狩猟

- | | |
|-----------|-------------|
| 農耕 | 狩猟 |
| • 個人 | • チームワークと役割 |
| • 和と調整 | • リーダーシップ |

15

【Slide 12】

購買理由の変化



17

【Slide 16】

国別の購買理由

	Japan (2010)	UK (2004)	France (2005)	Germany (2005)
# of attribute	40	25	21	22
# of Drivers	11	7	5	5

	%		%		%
1 Suitable for my dog/Easy to eat	24	Enjoyment	29	Health	29
2 Reliable/Healthy	24	Safe	20	Quality / Expertise	20
3 Additive Free	19	Quality/Health	16	Appearance	16
4 Care/Enjoyment	16	Natural Appearance	16	Quality / Expertise	16
5 Economical	16	Pack	16	Texture	16
6 Special Care	16	Variety	16		

【Slide 17】



社会の変化

社会トレンド

- ・ 独身層の増加
- ・ 女性の社会進出
- ・ 猫の増加
- ・ 高齢
- ・ 少子化
- ・ 小家族化
- ・ 長寿
- ・ インターネット
- ・ コミュニケーション(faceto face, 発展性減少)
- ・ 物販 (情報、社会インフラ)
- ・ 技術発展
- ・ 自然からの乖離
- ・ 24時間
- ・ 高層住宅

起こりうる現象と課題

- ・ 人間関係の希薄化(向こう三軒両隣り)
- ・ 孤独化(単身、高齢)
- ・ コムパニオンの渴望
- ・ 学問的体系づけ
- ・ 社会認識
- ・ 環境整備
- ・ 法規制
- ・ 社会の受け入れ(種、予防注射)
- ・ 飼い主の責任とマナー

【Slide 18】

“It is not the strongest of species that survives, nor the most intelligent....It is the one that is the most adaptable to change.”

Charles Darwin

【Slide 19】

有難うございました

【Slide 20】



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毎日の歯みがき習慣を、楽しくしましょう。