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TRAVELLING CIRCUSES: ANIMAL SUFFERING

ADI believes, as a result of our empirical evidence resulting from observation data, videotape and photographs, that animal suffering is inherent in the travelling circus environment. We have backed up this evidence with further research through the scientific literature for data on the effects upon animals of transport, confinement, and husbandry practices. We have concluded that travelling circuses present a series of recognised animal welfare problems, including:

- **Excessive periods** of time spent shut inside transporters – whether travelling or not;
- **temporary facilities** lacking space and environmental enrichment for most of the year;
- **travelling whilst sick, injured, or pregnant**, and forced to give birth on the road in a noisy environment;
- **limited exercise enclosures** that are only available to some of the animals –for example too many animals for the space provided; use of the facility on a rota system cannot be maintained; ‘difficult’ animals not being allowed into the enclosure;
- **violence and force being commonplace** – part of the circus culture and husbandry practices – accepted as a means to move animals about;
- **complex or unnatural tricks** (such as hind leg walking) requiring very close control and domination during training, resulting in violence.
- **Inappropriate groupings** and positioning of caging (e.g. mixing of species – or prey species close to predators; herd species kept alone).

Whilst we acknowledge that suffering in both humans and animals is difficult to prove, it should be a reflection of a humane society to allow the potential victims the benefit of the doubt. The following is a brief review of the scientific evidence forming the basis of our opinion.

The effects of transport:

Studies show that ruminants (which includes circus species such as camels, llamas, sheep, goats, African cattle and other ungulates), horses and other domesticated animals suffer during transportation.

Equine expert and animal behaviourist, Paul Greevy, discusses transportation of horses, in his book *'Equine behaviour – a guide for veterinarians and equine scientists'*:

"Horses brace themselves against and in anticipation of the changes in momentum during road transport by adopting certain body postures (notably the base wide stance). Efforts expended by horses as they continually adjust their posture during transit reflect both muscular and emotional stress related to road conditions and the drivers' behaviour. All of these efforts are readily evaluated by monitoring heart rates during transport. Horses have been shown to have higher heart rates in a moving vehicle than in a stationary vehicle, and although heart rates decreased significantly during a road journey, they did not return to resting levels. Transport stress may increase susceptibility to diseases, including an equine herpes virus and salmonellosis infections". (McGreevy, 2003)

There are a multitude of other studies on the transportation of horses and cattle for example, and this data can be read across to the travelling circus situation:

- Transport of horses is associated with lower reproductive rates, increased disease incidence, a temporary reduction in athletic performance and the alteration of many other physiological traits that are indicative with stress.
- Cows were found to show an increase in heart rate and body temperature after long term transportation as well as lowered immunity to disease; another study found cows to have a significant increase in cortisol levels after transport. Cows were also found to have thyroid hormone levels that were higher than the normal physiological range after transportation and therefore concluded to be *"of concern in particular aspects of animal welfare"*.
- Transported sheep show an increase in core body temperature during transport which persists for many hours after the transportation period and an increase in heart rate and plasma cortisol concentrations, which were greatest during the first two hours of a journey. (Friend, 2001, Stull, et al, 2004, Fazio, et al, 2005., Dixit, et al, 2001., Parrot et al, 1998., Parrot et al, 1999.)

Whilst it is a common view that horses and other animals become accustomed to transport, we have not seen any scientific evidence that this is the case. **In ADI's view, the fact that an animal is repeating an experience does not necessarily make it less traumatic, it may in fact sensitise it to the trauma.**

Many of the reference papers we have reviewed for the above describe the effects of a single journey, but one must assume that since multiple and frequent journeys are made by circus animals, some of these effects will be multiplied.

Travelling circus husbandry – the limitations:

It is now widely accepted by the zoo fraternity that environmental enrichment – the process of improving or enhancing animal environments and care within the context of their inhabitants' behavioural biology, i.e. keeping the animals as close as possible to their natural environments (Young, 2003) is essential to the welfare of captive animals. **Environmental enrichment is a dynamic process requiring species-specific modification which, with the best will in the world, simply cannot be provided in a meaningful way in a circus.**

There is good evidence that this is the case in the high level of abnormal behaviour in circus animals, for example elephants. A 2002 paper showed high levels of stereotypic and abnormal behaviours in all the elephants involved in the study, which was undertaken in a circus holding facility. This study showed that stereotypic behaviour differs between individuals and changing the methods of husbandry (i.e. shackling versus unshackling), only reduces stereotypies in some individuals but not in others. For some elephants it was impossible to narrow it down to one underlying cause of stereotypy. Many aspects of the circus environment were found to cause stereotypic behaviours in elephants, such as the lack of social contact, anticipation of food or other significant predictable event, the presence or absence of people, the size of their enclosure and their proximity to other specific individual elephants. It was also observed that as well as stereotypies, some circus elephants show other types of abnormal behaviours, such as an abnormal amount of time being inactive, probably as a result of being confined in an un-stimulating environment (Kirken & Broom, 2002).

Stereotypies provide good examples of behavioural problems and underlying welfare problems. They are particularly evident in 'wild' species but also seen in domestic animals, such as farm animals and horses. The cause of stereotypies can be multi-factorial but is generally related to environmental frustration and unpredictability, and thus a lack of environmental control. (Maas, 2000). Such is inherent in circus life.

Stereotypies provide good indicators of long-term coping problems and have been described for example battery hens, pigs (Fraser, 1975), circus tigers (Nevil & Friend, 2003) horses (Brion, 1964) and autistic children and prisoners (Levy 1944), as well as many other species in farms, zoos, laboratories and other captive situations. A study of circus tigers showed that whilst travelling, the animals showed a wide range of coping strategies and instances of stereotypic behaviours such as pacing, increased as transport duration increased (Nevil & Friend, 2003).

The disruption of normal behavioural patterns is likely to leave animals inherently vulnerable to stress and disease.

For example, McGrevy, 2004, describes how the timing of sleep is very important in horses and that by preference horses would sleep in the early afternoon and therefore

it is generally advised that there should be a minimum of activity at this time. But in the circus, transport, training and performance do not take this into account.

A study undertaken in 2000 describes how transport conditions cause severe fatigue in horses, so much so, that the study had to be terminated early, as the animals were not deemed fit to continue. Behaviours observed in this study included, closing of eyes, lower head carriage, less social interaction and less response to stimuli. (Friend, 2000).

Close Confinement in travelling circuses

Increased levels of aggression are frequently exhibited in many species of animal, subject to an environment of close confinement, or when animals are not given enough opportunity for exercise.

Farmed deer are found to show increased levels of aggression between individuals, when housed indoors compared to outside and it is suggested that this because they are unable to maintain their desired social spacing. It was also shown that deer housed indoors spent less time feeding and more time showing abnormal behaviours such as chewing on their enclosure. It was concluded that the indoor housing of deer compromises them socially and puts limitations on their natural foraging behaviour. (Pollard & Littlejohn, 1998).

Circus animals are not only subject to conditions of close confinement in their everyday living quarters but also whilst being transported. A study of horses being transported in groups recorded, *“Many incidences of aggressive horses repeatedly biting an adjacent horse in an apparent effort to get the horse to move away.”* In most situations of confinement it is impossible for animals to move away from one another, making submissive animals particularly vulnerable of attack by more dominant individuals. It was concluded that *“high stocking densities create a situation of constant struggle for the horses”*. (Collins, et al, 2000).

Improper Social Groupings & Lack of Conspecifics

Changing social groupings and dynamics, removing an animal for training, performance or transport leads to periods of social isolation.

Often individual animals are exchanged between circuses or lent to another circus for a season resulting in long term disruption of social groups. Animals that are social such as elephants are often kept in isolation, such is the case with Anne the elephant, and animals which are solitary such as tigers are often kept in groups (Nevill & Friend, 2003).

A study on circus tigers in 2003 described how circuses often transport tigers in groups and that severe fights can break out. The paper describes how ‘major movement’ in the back of the truck could be felt by the driver in the cab thus

indicating that the tigers were fighting. Whenever this happened, the method of stopping the fight was ‘sudden application of the breaks’ which would cause the fight to cease until the truck could be stopped to separate the tigers (Nevill & Friend, 2003).

A 2002 study on circus elephants found that “*the limited opportunity for social contact was the principle causal factor in the female Asian elephant’s stereotypy.*” (Kirkden & Broom, 2002).

Detrimental effects of social deprivation have been widely documented in many other animal species, for example in one study a group of piglets were divided into three different treatment groups, allowing differing degrees of social interaction. Results of the study included several differences in behaviour seen in both semi and fully isolated piglets compared with piglets housed in groups; increased frequency of sitting and decreased time spent active, increased frequency of escape attempts, decreased frequency of play and increased frequency of pawing behaviour, lower degree of interest in novel objects (Herskin & Jensen, 2000)

This evidence proves that animals, whether exotic or domesticated, are likely to be suffering as a result of living in a travelling circus, where–

- living space is necessarily limited to the back of a lorry;
- where exercise enclosures, if erected, are frequently not used by some (or all) of the animals due to time restrictions in the working day;
- where animals are vulnerable to abuse due to inadequately trained staff and staff working under time pressure.

It is important to note that **the balance of this evidence suggests that the horse is a sentinel for suffering**, since horses have had a long-established relationship with humans, and there is clear evidence of the suffering of horses in all aspects of circus life. Therefore, how much more will other species more inherently frightened of humans suffer?

We have seen no evidence that animals don’t suffer as a result of the conditions imposed on them in circuses. If others have it, let them produce it.

Animal Defenders International
London
020 8846 9777
www.ad-international.org

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