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### **Ruth Harrison's later writings and animal welfare work.**

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Ruth Harrison was my good friend during the last 25 years of her life. She was not involved in the animal production industry but she appreciated the pressures on those who were in the industry. She was not involved in politics but she knew how to present information for political decision makers. She was not a scientist but she understood the importance of science and strongly supported a scientific approach to animal welfare.

Ruth had always intended to write a second book and, at her request, her later published works and public addresses are being compiled as a book by sisters, Marlene and Diane Halverson, her American friends. I shall focus here on some prescient messages from Ruth's writings since *Animal Machines* and on her other work, in particular at the Council of Europe.

One of the key ideas put forward in *Animal Machines* (Harrison, 1964) was that some farming systems pushed animals outside their range of effective biological functioning, forcing them to try to adapt in ways that were difficult or impossible for them. Ethologist, W.H. Thorpe, like Ruth Harrison, was a member of the Brambell Committee (1965) and his explanations of animal needs fitted well with the views presented by Ruth Harrison. Some of the needs of animals are common to many species of animals, including humans. Others are specific to the kind of animal, so pigs need to root with their noses when exploring and searching for food and hens need to have a nest when they are about to lay an egg. If needs are not fulfilled, the welfare of animals is poor, as demonstrated by attempts to cope with the problems that are associated with abnormal behaviour and physiology.

Thorpe's concept of needs (1965) was developed by Harrison (1967, 1970, 1980), referring first to the needs of mink, second to the necessity for farmed animals to be able to use their locomotor ability to walk, swim or fly and their senses, for example to see, which they could not do in dark conditions, and third to needs to show behaviour patterns that are normal for them. Animal welfare scientists also developed the concept of needs, for example Duncan and Wood-Gush (1971, 1972), Hughes and Duncan (1988) and Toates and Jensen (1991). Broom and Johnson (1993) define a

need as a requirement, which is part of the basic biology of an animal, to obtain a particular resource or respond to a particular environmental or bodily stimulus. Throughout the past 25 years, the starting point for a review or for recommendations about the welfare of a species, for example by the Council of Europe or in European Union and European Food Safety Authority reports, has been a list of the needs of animals of this species, as demonstrated by scientific studies. A general guideline is provided by the Five Freedoms, but there are some problems with the concept of freedom (Broom, 2003), so the more scientific approach is to consider needs by assessing evidence for them. Many of Ruth Harrison's later statements and publications described the results of scientific studies of the strengths of animal preferences as evidence for needs; for example, Duncan (1978, 1992), Stolba and Wood-Gush (1989), Dawkins (1990, 1992) and Matthews and Ladewig (1994). For reviews of these ideas, see Broom and Fraser (2007), Fraser (2008) and Broom (2011).

When referring to needs, Ruth Harrison often emphasized evidence from the behaviour of animals, as she was aware that the scientific establishment and animal production researchers at that time frequently neglected to consider this. She sometimes used the term 'behavioural needs' but, as emphasized by Dawkins (1983) and Broom and Johnson (1993), this was not strictly correct, as the need itself was a construct in the brain so could not be called behavioural or physiological. The scientifically accurate, if less elegant, phraseology is 'the needs to show certain behaviours' or 'the need fulfilled by a certain physiological change'. At the Council of Europe Committee (the Standing Committee of the European Convention for the Protection of Animals Kept for Farming Purposes, abbreviated as T-AP), which has produced recommendations on the welfare of farmed animals, Ruth Harrison, together with Ingvar Ekesbo, Andreas Steiger and myself, strongly supported the inclusion of details about the biology of the animal species that was the subject of the recommendation, as this provided information about the 'biological needs' of the animals.

Ruth Harrison's contributions to the Council of Europe Committee, which she attended on behalf of the Eurogroup for Animal Welfare, typically involved reference to recent scientific papers which she had read. I attended this committee for 13 years as a scientific advisor on behalf of the International Society for Applied Ethology, which is the major scientific society for animal welfare scientists. Ruth appreciated at an early stage that scientific evidence was much more difficult to refute, for those defending an industry practice, than was an expert opinion. Hence, she read key papers herself and was keen to hear about evidence from scientific experts. In 1969, she said in a paper presented to the Royal Society of Health that the fact that stress was often not recognized was

leading to acceptance of practices that were harmful to animals (Harrison, 1969a). She supported very strongly the development of animal welfare science from its early stages in the 1980s to the substantial discipline that it has later become.

From an early stage, Ruth Harrison emphasized the positive aspects of animal welfare. In an article in *The Observer* in 1969, she said that our farm animals were complex social animals (Harrison, 1969b). She advocated keeping them in conditions that would result in good welfare rather than making them zombies or parodies of themselves. In a paper given at the Agricultural Development and Advisory Service Conference in 1988, she said that one of the biggest curbs on progress in improving animal welfare was the attitude that the worst welfare should be prevented rather than that the best welfare should be promoted (Harrison, 1988). She commented that animal welfare science should be focused more on measuring positive welfare rather than just evaluating the worst welfare. The scientific discipline has eventually come to develop in this way.

Frustration at the slowness of progress towards good welfare in farm animals was often evident in Ruth's writings. She considered (Harrison, 1978) that voluntary codes led to much less improvement than laws. In her Hume Memorial Lecture in 1987, she stated that the recommendations of the Brambell Report had been only weakly implemented by government. In many cases, action had not been taken, with the excuse that more evidence was needed (Harrison, 1987). For example, she said that focus on the Five Freedoms, which were really just a general guideline, had led to a delay in action, with governments requesting that more scientific research be done (Harrison, 1993).

Illogical ethical positions are adopted by some with vested interests. Some of those who use animals on farms will use systems and procedures which result in welfare that is poor, to a degree that they would condemn strongly if the animal were their pet. In a lecture presented in Trafalgar Square, London, in 1965, Ruth Harrison said, 'People's attitudes to animals tend to be governed in part by the use to which they are put rather than by the animals simply as animals' (Harrison, 1965).

However, she was pragmatic and thought of what producers of farm animals had to do to survive financially; for example, saying in the same speech, 'At a time of over-production in practically all animal products in the Community, there is time to re-assess systems in favour of those that respect animal life and dignity and to direct resources in helping producers to use them.'

A frequent argument used against proposals to improve animal welfare, where some extra cost would be involved, was that food production

should be maximized as there were many people starving in the world. In a paper given in Ottawa (R. Harrison, Ottawa, 1978, unpublished document), she said that 'meat production in most of the world has nothing to do with the starving poor'.

A major improvement in farm animal welfare in recent years was brought about by consumers who had learned about the poor welfare of animals used to produce specific animal products and had refused to buy those products. The result was, first, that high welfare products were advertised and, second, that retail food companies set up standards for animal welfare. This direction of change was anticipated by Harrison (1971), who stated that 'It is only by labelling that the public can make known its preferences.' The move towards sustainable agriculture (Broom, 2010) was also anticipated by Ruth Harrison's Farm Animal Care Trust, by sponsoring a symposium on the subject (Marshall, 1992).

Harrison's work has had long-standing influence and continues to be referenced today by scientists and lay people with an interest in the lives of farmed animals. The progress that has been made, especially in Europe, between 1972 and the present with respect to formulating rules and scientific rationales for farm animal protection would not have been made without her initial stimulus and subsequent influential contributions. Ultimately, Harrison's work led to a new outlook on the use of animals in agriculture and the development of animal welfare science. Yet, the reader of this volume will be impressed not only by Ruth's summation in 1964 of the challenges presented to animals but also by her prescience concerning future developments and by the amount of work still to be done.

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