

# Essential veterinary education in the cultural, political and biological complexities of international trade in animals and animal products

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## Summary

Globalisation has changed the veterinary profession in many ways and academic institutes may need to re-tool to help future professionals deal with the changes in a successful and productive way. The remarkably expanded and expanding volume of trade and traffic in animals and animal products means that to be effective veterinarians must grasp some of the complexities inherent in this trade. Being able to engage productively in cross-cultural dialogue will be important in negotiations over livestock shipments and also within the context of the delivery of medical services to companion animals in societies that are becoming increasingly diverse. Understanding the political landscapes that influence trade decisions will help to expedite agreements and facilitate the transfer of goods and materials that involve animal health. Disease emergence will continue to occur, and an awareness of the factors responsible and the response measures to undertake will help to contain any damage.

## Keywords

Cross-cultural dialogue – Globalisation – Trade – Veterinary education.

## Introduction

In the best of all possible worlds, a flyer like the one in Figure 1 would be posted on the bulletin board of each of the world's approximately 500 veterinary schools:

Is globalisation important for veterinarians to understand? YES! Today, with all the changes happening in world trade and the markedly expanded international traffic in goods and services, every profession involved in the delivery of those goods and services needs to have at least a

**Notice to all veterinary students!!!**  
**New Course Offering – Globalisation 101**

This course will introduce students to the dramatic changes that have taken place in the world and the huge increase in international commerce, including the trade of animals and animal products. Students will learn the complexities of international economies as they relate to animal health and understand the basis for the steady parade of emerging diseases, most of which are zoonotic. In addition, students will be exposed to various intercultural and political complexities inherent in the newly globalised world and the increasing relevance of globalisation to all veterinarians.

**Fig. 1**  
**A fictitious flyer advertising a course in globalisation for veterinary students**

rudimentary understanding of the radical changes that have transpired in commerce.

Although 'globalisation' is the term commonly used by the general public and the media to refer to the interconnectedness of economies through trade, academics studying international commerce and relations refer to the current system that has evolved as 'complex interdependence'. There is an emphasis not only on the interconnectedness, but on the fact that the connecting ties are costly to break: countries are not just linked to one another by some tenuous ties of trade, but bonded to one another economically and otherwise, by ties that would be costly to destroy. An analogy has been made to a pool table, where all the balls on the pool table are the countries in the world. Overlying the pool table is a heavy net, so that as one ball moves it can not move very far without exerting a tug on some of the other balls. Similarly, this heavy net also keeps the balls from striking each other, an analogy to the relative peacetime that the world is now experiencing. There is a mutual dependence born of trade that has been referred to as a virtuous circle: trade liberalisation dampens political conflict and promotes democratisation, which in turn expands trade and further suppresses political conflict.

The world domestic product has been growing at the unprecedented rate of 3% to 5% per year and global trade is increasing at even greater rates. Trade has grown so much that it now accounts for almost one-third of the global economy and contributes a larger percentage each year to improved economies worldwide (3). Huge and unprecedented volumes of materials and money are moving around the world in an intricate and interconnected way. As stewards of animal health, in all its shapes and sizes, veterinarians can benefit from enhanced understanding of the cultural, political, and biological complexities inherent in this trade.

## Cultural complexities

Today's animal health professionals need to be able to operate in environments laden with diversity. Whether the cross-cultural dialogue is happening in the conference room at a Ministry of Agriculture and involves cargo loads of livestock or livestock products, or if it is happening in the exam room of a small animal clinic, an appreciation of differences and an ability to reach across cultural divides will enhance effective communications and negotiations.

There are vast differences in how people interact in various cultures and this assumes critical importance in a transactional setting (1). In the 'low-context' countries,

such as Germany and the United States of America (USA), the partners get down to business quickly and perform negotiations in the minimum amount of time, regarding rituals as tedious and inefficient. At the other end of the continuum are the 'high-context' cultures such as those of the Chinese and the Arab world, where establishing social trust is a high priority and negotiations occur over a protracted period of engagement and conversations. Approaching one set with the mindset of the other can generate misunderstandings and is bound to lead to failure or mistrust. Imagine an American veterinarian expecting a high-level Japanese regulator to accept a packet of animal health certificates without first exchanging business cards and pleasantries. Similarly, imagine an Arab veterinarian in Dubai treating a European's pet dog that has been hit by a car: the European may find it odd if the Arab first inquires about the client's health and the client's family's health before focusing on the patient.

In addition, approaches to animals vary considerably across cultures. As veterinarians interact with people from different areas of the world it will be important to recognise that cultural gaps exist with almost all of the species with which veterinarians deal. Perhaps companion animals provide the greatest contrast. Whereas in developed countries, pets are often regarded as members of the family and given medical treatment accordingly, in developing countries, often comparable care cannot be found for human family members, let alone the animals they steward. Leona Helmsley, American hotelier and real estate magnate, left US\$12 million to her pet Maltese, aptly named Trouble, in her will, and there was an additional US\$5 billion to US\$8 billion of the trust specified 'for the care and welfare of dogs' (2). This is incomprehensible and probably offensive to most of those in the developing world. In places where human malnutrition is rampant or simple anti-malarial bed nets are not affordable, Ms Helmsley's attitude toward her canine companions is regarded as folly and a blatant, perhaps dismal disregard for her human relatives. Similarly, veterinarians in developed countries, observing the prevalence of stray dogs in many developing countries, may express dismay and wonder, 'how can they let their animals just run loose and not care for them?' It is a huge cultural gap.

There are also considerable differences with food-producing animals. Whereas swine agriculture is widely practised in many parts of the world, in other areas consumption of pork is an abomination. Both Jews and Muslims adhere to proscriptions against consumption of pork and regard pigs as essentially unclean. Similar cultural differences exist with cattle and horses. Although cattle all over the world are regarded as producers of meat and milk, in India, which has 30% (400 million) of the world's cattle, Hindus consider the cow sacred. There is a converse situation with horses. In some traditional central

Asian societies, consumption of horsemeat is a natural part of life, as the main herding animal reaches the end of its useful lifespan. Similarly, in some countries of Europe, notably France and Belgium, horsemeat is a prized dish. However, in some other areas such as the USA and the United Kingdom (UK), the idea of consuming horsemeat is appalling to many, as horses are rarely considered akin to livestock but more along the lines of companion animals.

## Political complexities

In a world where international trade is the norm, it is incumbent on veterinarians to understand government (regulatory) frameworks for trade in animals. Do our veterinary students comprehend these regulatory workings? Do even our cadres of functioning veterinarians understand? Maybe not.

Here is how it works in a nutshell. At the top, the similarities are easy. Each country has its own Chief Veterinary Officer, or CVO, usually employed by the Ministry of Agriculture, or its equivalent. It is the function of the CVO to serve as a liaison between their country and the CVOs of other countries, often through the mechanisms of the World Organisation for Animal Health (OIE). So every country has a CVO and all CVOs report to the OIE, but what happens at the level beneath the CVO varies greatly from country to country and no two countries are the same. Any veterinarian who expects the system in another country to be the same as in his or her own is in for a surprise.

Some systems are very well ordered, with all the regulatory veterinarians being government employees. In some countries, most of the veterinarians work for the government. In some others, there is a private/public mix, whereby an accreditation system allows for some private veterinarians to function in a regulatory capacity. And, in some, such as the USA, the majority of veterinarians are private, but even the non-accredited private veterinarians have some public responsibilities, such as reporting specific diseases.

Each country's CVO oversees the promulgation of regulations involving animal health for their own country. Although there are broad similarities in regulations from country to country, there are also distinct differences. A small animal practitioner advising a client relocating with their dog or cat to a new continent may need to advise on rabies regulations. A large animal theriogenologist wishing to facilitate export of bovine semen to another country needs to understand who to contact and how the receiving system operates. And perhaps most importantly, each needs to recognise that the regulations and animal health system in another country might be quite different.

Training and licensing procedures for private veterinarians vary greatly from country to country, and are also ultimately dependent on government. There are complexities in the governance of the profession at all levels, from the federal government down to state/province governments, the academic sector and professional organisations. In some countries, there is a well-defined system for licensing veterinarians and there are federally-mandated (or provincially/state-mandated) standards that those wishing to practise veterinary medicine must adhere to. In some other countries, no such licensing system exists and graduation from a school of veterinary medicine is enough to begin the practice of administering care to animals.

Similarly, national organisations or the federal government can accredit specific schools and this varies a lot globally. In the USA and many European countries, there are well-developed systems for this accreditation, with a stringent and transparent process for deciding the suitability of schools to award degrees to competent veterinarians. In countries that follow this pattern, new schools of veterinary medicine understand that they must build high-quality programmes and fulfil all the regulations in order to attract students, which is a form of quality control on the nation's veterinary graduates. This is in contrast to some countries, where there is a weak or even non-existent system of veterinary academic accreditation, and any university wishing to open its doors as a veterinary college can do so. As a result, there has been a proliferation of academic veterinary programmes, with many more veterinarians graduating than are required. This has greatly diminished the value of the veterinary degree, as supply of manpower has greatly exceeded demand. Maintaining national organisations or governing bodies that favour the stringent system of accreditation requires considerable political will. This does not exist everywhere and can impact the level of veterinary expertise available nationally and subsequently interfere with trade decisions.

An unpleasant topic to cover in the realm of political complexities is corruption, which can be a major factor in regulatory decisions. Regulatory decisions are not always based on sound science, even in the most developed of countries. Often CVOs are under huge political pressure to regulate against scientific evidence. In the USA, the refusal to allow imports of Canadian beef due to bovine spongiform encephalopathy is an excellent example of how politics can trump over science in the interests of economic expediency. Transparency is essential and does not always occur. Corruption is the most severe form of non-transparency and must be figured into trade negotiations. It exists in various forms in all political systems and needs to be considered as a part of the decision-making process.

## Biological complexities

Trade is growing at an increasing rate and accounts for a large part of the international economy. Much of the trade is in animals and biological products, but another part of globalisation is the increasing movement of people (and their pets) internationally. All of these carry with them the risks of animal disease emergence.

With respect to agricultural products, there has been a sizeable shift towards livestock and livestock products coming from the developing world. About one-sixth of all international trade is agricultural and much of that is from the developing world. This trade has been a boon to developing economies but also carries with it the risk of transboundary disease movement and incursions into new areas. Livestock and livestock products from the developing world are economically attractive, but often the regulatory infrastructure is insufficient to provide reliable assurances that the goods are disease-free. Because of the volume of trade, it is difficult to avoid illegal importations embedded within the midst of those that are legal. A prominent example is the foot and mouth disease outbreak that devastated the UK in 2001. It originated from a container load of Chinese meat that was described as something else on the bill of lading. With literally millions of containers being unloaded at various ports around the world, it is not possible for inspectors to peer into every one. Veterinarians throughout the world need to be on the alert for a transboundary disease that crops up in a new region. Our borders were never non-porous and the expanded traffic means more possibilities of disease incursions.

But it is not just agricultural diseases. Emerging diseases are occurring as well due to the vast amount of trade. Monkeypox occurred in the heartland of the USA, imported into living rooms in the form of infected prairie dogs, who contracted the virus by sharing quarters with Gambian giant rats at a wholesaler's facility. A West Nile

virus hitched a ride in an infected mosquito and emerged in New York City; within a few years it had moved up and down the eastern seaboard of the USA and expanded throughout the continent and all the way through the Americas. The severe acute respiratory syndrome virus emerged from a farmed civet cat, which got the virus from a bat, and then the civet cat infected workers at a live animal market, who subsequently spread it on and on to six continents, costing the world over US\$80 billion.

But it is not just infectious diseases either. Melamine was imported as a contaminant in rice gluten, incorporated into pet food, and caused thousands of dog and cat illnesses in North America. But this is minor compared to the 13,000 infants hospitalised as a result of melamine getting into cow's milk and from there into infant formula.

Will something be next? Most definitely. What will it be? We do not know. About all we know is that there will be a 'next'. Effective control requires heightened awareness and knowledge of effective response systems.

## Conclusion

Practitioners of any profession that wishes to succeed in the current climate of globalisation will need to grasp some of the many complexities associated with the risks and regulations inherent in greatly expanded trade and travel. Veterinary medicine is no exception. It is important for economic and public health, as well as for the health of animals everywhere, that we begin to embrace some of these issues and expose the next generation of veterinarians to these complexities. Hey, we need that course!



## Les fondamentaux de l'enseignement vétérinaire : la complexité des aspects culturels, politiques et biologiques des échanges internationaux d'animaux et de produits d'origine animale

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### Résumé

La mondialisation ayant transformé de diverses manières la profession vétérinaire, les facultés vétérinaires doivent revoir leurs boîtes à outils afin de doter les futurs professionnels des moyens de répondre à ces changements de manière constructive et productive. Le commerce international d'animaux et de produits d'origine animale a récemment connu une augmentation et une expansion extraordinaires, évolution qui devrait se poursuivre et qui exigera des vétérinaires qu'ils appréhendent toute la complexité de ces échanges afin d'avoir une action efficace. La capacité à prendre part de manière constructive dans les dialogues transculturels est un atout important lors des négociations sur les transports de bétail, ainsi que dans le cadre des soins vétérinaires apportés aux animaux de compagnie dans des sociétés de plus en plus caractérisées par la diversité. La connaissance du contexte politique susceptible d'influencer les décisions commerciales permet de conclure plus rapidement des accords commerciaux et de faciliter le transfert de marchandises et de matériels ayant une importance pour la santé animale. La survenue de maladies émergentes ne cessera pas, de sorte qu'une sensibilisation aux facteurs responsables de leur émergence et aux mesures à prendre pour y répondre permettra de maîtriser les dommages causés.

### Mots-clés

Commerce – Dialogue transculturel – Enseignement vétérinaire – Mondialisation.



## Elementos esenciales de la enseñanza veterinaria con respecto a los complejos aspectos culturales, políticos y biológicos del comercio internacional de animales y sus derivados

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### Resumen

La mundialización ha cambiado numerosas facetas de la profesión veterinaria, y los establecimientos universitarios quizá deban dotarse de nuevas herramientas para ayudar a los futuros profesionales a afrontar los cambios de manera efectiva y productiva. El comercio de animales y productos de origen animal se ha acrecentado (y lo sigue haciendo) de manera muy notable, y ello significa que los veterinarios, para trabajar eficazmente, deben aprehender una

serie de complejas sutilezas inherentes a este comercio. La capacidad de intervenir de forma productiva en un diálogo transcultural será un factor importante en negociaciones sobre remesas de ganado, como lo será a la hora de prestar atención veterinaria a los animales de compañía en sociedades que exhiben una diversidad creciente. Ser capaz de entender el paisaje político que influye en las decisiones comerciales será de ayuda para agilizar acuerdos y facilitar la transferencia de bienes y materiales relacionados con la sanidad animal. También seguirán surgiendo enfermedades, y el hecho de conocer los factores responsables y las medidas de respuesta será útil para contener los subsiguientes perjuicios.

**Palabras clave**

Comercio – Diálogo transcultural – Enseñanza veterinaria – Mundialización.



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