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ANIMAL SUBJECTIVITY

A STUDY INTO PHILOSOPHY AND THEORY
OF ANIMAL EXPERIENCE

Susanne Lijmbach

STELLINGEN

1. De analogieredenering op grond waarvan men tot ervaringen bij dieren concludeert, legt een relatie tussen de wereld van objectieve dingen en gebeurtenissen en de wereld van subjectieve ervaringen.
2. De benaming "humanities" voor de geesteswetenschappen is terecht aangezien deze wetenschappen zich beperken tot mensen; om recht te doen aan dieren als subjecten, zou men ook moeten spreken van "animalities".
3. De betekenis van Descartes' uitspraak "Cogito ergo sum" wordt bij Plessner en Merleau-Ponty dubbelzinnig.
4. In het hedendaags onderzoek naar ervaringen bij dieren is de dierpsychologie van Buytendijk zeker geen gepasseerd station.
5. "Vermoedelijk is voor ons van al het zijnde dat is, het levend wezen het moeilijkst te denken, omdat het enerzijds in zekere zin het dichtst bij ons staat en anderzijds toch tegelijk door een afgrond van ons ek-sistente wezen gescheiden is." (Heidegger, "Brief Über den Humanismus", 1949).
6. "Er is echter geen weg naar de niet-menselijke Umwelten." (Plessner, "Mensch und Tier", 1946).
7. De pil en het condoom hebben seksualiteit ontkoppeld van het krijgen van kinderen; kunstmatige inseminatie en in vitro fertilisatie hebben het krijgen van kinderen ontkoppeld van seksualiteit.
8. Als burger is iedere consument ook verantwoordelijk voor de produktiewijze van wat hij of zij koopt.
9. Het marktdenken heeft in de universitaire wereld wel tot een hoge omzet maar nog niet tot winst geleid.
10. In het licht van de promotie van regionale produkten geeft het te denken dat Wagenings kruidenbitter in Harderwijk wordt geproduceerd.

11. Nu coupés in forenzentreinen de sociale functie van agora, forum en markt hebben overgenomen, is de zorg voor publieke ruimtes van een stedenbouwkundige kwestie ook een vervoerskundige kwestie geworden.
12. De aanduiding “het dier” ontkent niet alleen de geslachtelijkheid maar ook de subjectiviteit van dieren.

Stellingen behorende bij het proefschrift
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A Study into Philosophy and Theory of Animal Experience
van Susanne Lijmbach
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ANIMAL SUBJECTIVITY

A STUDY INTO PHILOSOPHY AND THEORY OF ANIMAL EXPERIENCE

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TABLE OF CONTENTS

	Preface	i
I	The question of animal subjectivity	1
Part one		
II	Wiepkema and Toates: animals as emotional systems	11
III	Dawkins: "From the animal's point of view"	19
	Intermediate Reflections 1	25
IV	Dilthey: "We explain nature, and understand life"	29
V	Gadamer: "Being that can be understood is language"	43
	Intermediate Reflections 2	53
Part two		
VI	Merleau-Ponty: the ambiguous human body	59
VII	Plessner: the ambiguity of the animal body	75
VIII	Buytendijk: understanding the meaning of animal behaviour	91
IX	Animal psychology: the third way between the hermeneutic and the natural-scientific approaches	111
X	A critical reading of two animal welfare debates	129
XI	Towards an integration of interpretative and natural-scientific approaches to animal experience	147
	Summary	155
	References	161
	Curriculum vitae	169

PREFACE

While writing this book I used the phrase “From stop making sense to Trying to make sense” as its working title. This phrase expresses the thread of this book: neither natural-scientific ethology nor hermeneutics can make sense of animal behaviour, that is, see animal behaviour as a subjective phenomenon. By using a view based on philosophies of the animal body as an experiencing body I try to make sense of animal behaviour.

Another reason for using this working title was that it expresses the two parts of my life. “Stop making sense” is the title of a song by David Byrne. His songs and music express my private life, namely the way of living and loving of middle-aged, modern and urban people. “Trying to make sense” is the title of a book by Peter Winch. He was the first one who opened up my natural-scientific eyes for another way of viewing human behaviour. From that moment on, the idea of an animal science based on such a view became the drive of my professional life.

Under the heads of these two titles, I wish to thank all the persons in my private and professional life for their support.

I thank all my former and present colleagues at the Applied Philosophy Group of Wageningen Agricultural University for their more or less daily support. Some of them I wish to mention by name, namely my promotor Michiel Korthals and co-promotor Jozef Keulartz; Henk van den Belt for revising the English text, and Bea Prijn for her personal and computer support. I also wish to thank Carol Crow for giving the finishing touch to the English text; all the students who passed by for reminding me weekly to my main task of teaching; all the persons working at other departments of my university, especially the Department of Animal Sciences, at animal protection organizations, ministries or wherever else for keeping alive my philosophy as applied philosophy, and all my colleagues of other universities, especially one of my promoters Jan Grommers, for their sometimes harsh but always friendly criticism. I wish to thank by name too Jos de Mul, Ben Vedder, Douwe Tiemersma, Petran Kockelkoren and Wim Dekkers for their critical reading of the drafts of chapters of this book, and Joseph Kockelmans who took care for me in State College, Pennsylvania, while I was quietly working there for three months.

Under the head of “Stop making sense”, I wish to thank the members of my still extending family and my friends, especially the females, for my deceased father’s attitude: “Whatever she does, she is my daughter,....” One of them, my “grundsätzlicher Lebensgefährte” Jaap de Vletter, may give me back my own words and continue the songline: “Stop making sense. We just want someone to love...”

CHAPTER I

THE QUESTION OF ANIMAL SUBJECTIVITY

1. Scientific and philosophical problems of animal subjectivity

This book tries to give an answer to the theoretical-scientific and philosophical problems regarding the conceptualization and the method to gain knowledge of animal experiences. These problems are called the problems of animal subjectivity, because the capacity to experience is seen as the criterion for speaking about subjects instead of objects or things. (See, for example, the title of a Dutch book about this question *Animal or thing. Objectivation of animals*, 1988.)

Thinking of animal subjectivity brings to mind the relation between human and animal subjectivity. An obvious way to conceptualize animals as subjects seems to be to argue that animals are in the same way subjects as humans. Contemporary animal ethologists and animal ethicists sometimes follow this path. For instance, Griffin, an ethologist, goes to great lengths to demonstrate that animals have capacities that we normally restrict to humans. And the animal ethicist Regan says that all mammals of at least one year or older meet the criteria of being a subject-of-a-life. These criteria include the capacity to have beliefs, desires, perceptions, memory, to experience welfare, etc.; in short, all the capacities human subjects have. This egalitarian view would imply ethical egalitarianism too, which states that animals ought to be treated in the same way as humans.

This way of conceptualizing animal subjectivity often leads to inconsistencies. In order to demonstrate that animals are subjects like humans, ethologists mostly conceptualize human and animal experiences in a natural-scientific way. An example is the comparison that Griffin and Rollin make between the concept 'animal experience' and theoretical physical concepts such as 'quark' that refer to unobservable entities as causes of observable phenomena (Griffin, 1976/1981, pp.115-116; Rollin, 1996, p.9). This contradicts its intention: it sees animals and animal experiences, like physical phenomena, as objects or things.

Also Regan's egalitarian view on humans and animals leads to an - ethical - inconsistency. He concludes from a discussion of a few so-called "lifeboat examples" that humans are allowed to throw a dog overboard to prevent their own death by drowning. This conclusion is clearly in contradiction with the equality of animals and humans. (See Rivas (1997) for the discussion of this inconsistency in Regan's animal ethics.) *In this book I will follow another way to justify our speaking of animal subjects. Rather than trying to demonstrate that animals are subjects like human subjects, I will develop a concept of animals as experiencing subjects and a method for knowing their experiences by discussing various theoretical and philosophical views on animals and humans as subjects.*

Saying that animals are subjects is criticizing the traditional dualism of non-human

objects and human subjects. This criticism leads one to a dispute with animal ethologists as well as with scientists of humans. Within animal ethology (the scientific discipline that nowadays studies animal experiences), speaking of animals as subjects was anathema from about 1950s. The ideas of Niko Tinbergen of ethology had triumphed. In *On aims and methods of ethology* (1963), Tinbergen defended an objectivistic ethology that aims at causal explanations of animal behaviour. He considered the natural-scientific, empirical-analytical method of research the appropriate one to do this. This method sees animal behaviour, and therefore animals, as any other object in science. Hence, Tinbergen said ethology must be the same as any other scientific discipline and should not allow subjective phenomena such as experiences or feelings be causes of observable phenomena. By means of this view, Tinbergen criticized the ideas of ethologists like Lorenz and Huxley, and especially those of animal psychologists such as Buytendijk, Bierens de Haan and Portielje, who all acknowledged animal experience (Burkhardt, 1997; Röell, 1996).

Tinbergen's view is still influential in animal ethology, including that part which studies animal welfare. Some animal welfare scientists fully agree with Tinbergen's view and say that, although animals may have subjective feelings of welfare, these feelings cannot be studied scientifically. Animal ethology and all animal sciences have to restrict themselves to causal and functional, physical explanations. Other animal welfare scientists partly agree with Tinbergen's view. Ethologists like Wiepkema and Toates also causally explain animal behaviour by means of the natural-scientific method of research. But, unlike Tinbergen, they accept animal experiences as causes of animal behaviour. This seems to be contradictory: to follow Tinbergen's method of ethology, which aims at the removal of animal experiences from ethology, to investigate animal experiences. *In the dispute with animal ethologists it will be argued that it is possible to investigate subjective animal experiences, albeit not in a natural-scientific way.*

Speaking of animal subjects also leads to a dispute with scientists within the humanities such as cultural anthropologists and historians, who hold onto the subjective character of experience. However, these scientific disciplines usually restrict experience to human experience. These disciplines have a dualistic view on the world: the world is made up of natural-objects on the one hand and human subjects on the other. A dualism concerning methods of research reflects this dualistic view on the world. The method of the natural sciences is held to be appropriate for studying non-living things, plants, animals and the physical aspects of humans such as their bodies. With regard to their subjective aspects, humans are held to be studied in an understanding way, for example hermeneutically or phenomenologically. *Against this dualistic world view within the humanities it will be argued that animals can be the subject matter of an understanding investigation, although they are another type of subjects than human beings.*

2. Background of this study

From about the 1960s many problems regarding the treatment of animals are seen as animal welfare problems. Admittedly, before that time, laws and other regulations with regard to animals existed - at least in western countries. However, not the protection of animals but the protection of human interests was the aim of these laws and regulations. For instance, the argument for accepting anti-cruelty laws at the end of the 19th Century was that permitting cruelty to animals could easily lead to cruelty to humans. And the Dutch Livestock Diseases Act, the forerunner of the present Animal Health and Welfare Act, only concerned animal diseases with negative consequences for the owners of the animals, the livestock population or the export of animals and animal products. The emergence of the concept of animal welfare implied the view that animals ought to be cared for because of their own interests (Gezondheids- en welzijnswet voor dieren, 1994, p.XX). Animal welfare is such an interest, especially because many people define this by experiences of feeling well or badly. Usually, the capacity to experience is seen as the same as being a subject. So, speaking of animal welfare brought animals as subjects upon the stage.

The general rule of the Dutch Animal Health and Welfare Act is that the degree to which animal welfare is affected ought to be weighed against the importance of the use of animals for human ends. This seems to be a clear rule, but it is not. One of the problems with the implementation of this rule is the human assessment of the harm to the animals' welfare. This problem showed up when the Dutch Animal Protection Movement and the Fur for Animals Foundation started a campaign to prohibit keeping mink for their fur. These organizations claimed that the welfare of the mink animals under the current farming circumstances was too poor to legitimize the goal of the production of fur. The question whether and how much the welfare of farm mink is harmed turned out to raise scientific and philosophical problems. These became clear at a meeting in 1995 of Dutch scientists and philosophers about animal welfare and the method to assess it. One of the participants of the meeting was Françoise Wemelsfelder. She had just written a thesis in which she criticized the usual ethological view on animal experience and the method used to investigate them (Wemelsfelder, 1993). Rather than seeing animal experiences as something inside animals that causes animal behaviour, she sees animal behaviour as a direct expression of their experiences. Instead of the objectivating and quantitative method of research, she proposed a subjectivating and qualitative method. *The aim of the present book is to continue this scientific and philosophical discussion about animal subjectivity as a subject matter for animal science. The central questions are how we can conceptualize animal experiences and by which methods we can know them.*¹

¹ The different meanings of 'science' in different languages raises a problem for using this word. In English, 'science' is usually restricted to the natural sciences. In Dutch, 'science' always includes the natural as well as the human sciences. In German, the human sciences which use a method of research different from the natural scientific method are called the *Geisteswissenschaften* or the hermeneutical sciences. Like the Germans, I prefer to call every systematic and controllable way of

3. Outline of the book

This book contains two parts. In the first part, I will discuss two different approaches to experience in general and animal experience in particular. In the second part, the idea of bodily and environmentally bound animal experience will be elaborated conceptually and methodically, and translated to contemporary scientific and philosophical debates about animal welfare.

The two approaches to experience are, on the one hand, two ethological animal welfare theories and, on the other hand, two philosophical hermeneutical views on animal experience. Both approaches are not adequate to conceptualize animal experience, albeit for different reasons.

The two ethological theories, namely that of Wiepkema and Toates (chapter II) and that of Dawkins (chapter III), are examples of natural-scientific animal welfare theories. I largely agree with Wemelsfelder's analysis of most ethological animal welfare theories, namely that these theories see animal experiences as internal and unobservable causes of behaviour (Wemelsfelder, 1993). Seen as such causes, animal experiences are mere theoretical concepts or designations that are similar to concepts such as 'quark'. Ethologists of animal welfare, however, say that these theoretical concepts refer to subjective animal experiences. Here they use the argument from analogy. This argument assumes, rather than demonstrates, that animals are similar to humans with regard to experiences. *Ethological animal welfare theories intend to inform us about subjective animal experiences of good or poor welfare. In fact, they do not contain an explicit concept of animal welfare as subjective experience because of their natural-scientific character.*

In my search for a concept of and method for knowing subjective animal experiences, I make a leap to a totally different domain of science, namely to hermeneutics. This is a philosophy and science within the humanities that holds onto human experience as subjective experience. I will discuss two founders of 20th Century hermeneutics, namely Dilthey (chapter IV) and Gadamer (chapter V). Especially their conceptual and methodical view on experience in general and animal experience in particular will be analyzed. The views of these philosophers are also not adequate to conceptualize subjective animal experience because they largely use a classical hermeneutical line of reasoning. This line of reasoning consists of taking typically human experiences as examples of experiences in general and then founding the capacity to experience on a way of being that is typical human. *Here I agree with Petran Kockelkoren who says that hermeneutics excludes meaningful animal expressions and experiences because it sees experience, expression and meaning as always cultural and*

acquiring knowledge "science". But doing this in a book written in English might be confusing. Therefore, most of the time I will use an adjective in order to prevent any misunderstanding, for example natural science or hermeneutical science. When I just write about science, I hope it will be clear from the context what the intended meaning is.

historical (Kockelkoren, 1992). However, Gadamer's view on human experiences of health and sickness as founded on the human bodily way of being opens up a way of seeing animal experience as bodily experience.

In the second part of the book, I will explore this point, which can be seen as a continuation of the research started by Kockelkoren and Wemelsfelder. Kockelkoren also emphasizes the bodily aspect of animal experience. Like me, he derives this aspect from the philosopher Plessner. Kockelkoren, however, neglects the distinction that Plessner makes between animal and human experience (Lijmbach, 1992). I will emphasize this distinction, and say that animal experience, unlike human experience, is impersonal, bodily bound, here-and-now experience. In order to gain knowledge of animal experiences, a method is needed that holds onto their subjective character, namely that experiences are lived by the animals in question. As said, Wemelsfelder proposes a subjectivating method, namely one that sees animal behaviour as a direct expression of experiences. I fully agree with her intention, but not with her elaboration. Wemelsfelder does not want to go beyond the limits of natural science; she thinks that a natural-scientific ethology can do this job (Lijmbach, 1993). I will argue that, in order to study animal experiences, an interpretative method is needed.

Speaking of bodily experiences within philosophy immediately brings to mind the name of Merleau-Ponty (chapter VI). All his writings are about the human body as an experiencing body, which he sees as the origin of reflective experiences. He opposes the Descartes' view on humans, which says that humans are made up of a physical body and a mind. Merleau-Ponty, by contrast, sees the human body as ambiguous: an intertwining of physical and experiencing body. With regard to animals, however, Merleau-Ponty is not very specific. On the one hand, it is possible to apply Merleau-Ponty's philosophy of the human body to animals except that only humans possess the capacity to have reflective experiences. On the other hand, Merleau-Ponty is not clear about the question whether and how animals as non-reflective organisms differ from other non-human organisms to which we do not ascribe experiences.

Plessner has given an answer to this question (chapter VII). He has developed a philosophy of life in which he distinguishes different kinds of bodily being. Plessner clearly states that only animals, beside humans, are experiencing beings. He says too, however, that animal experiences as pre-reflective and "here-and-now" experiences differ from reflective human experiences because animals only have a bodily-bound self. *Plessner's concept of animal experiences as bodily-bound, here-and-now experiences can be seen as an answer to the first question of this book, namely that of a proper conceptualization of subjective animal experiences.*

The Dutch animal psychologist Buytendijk has made concrete Plessner's philosophical concept of animal experience (chapter VIII). Buytendijk belonged to the Utrecht School of Psychology. This School opposed the dominant natural-scientific views on humans and psychology. The members of this School saw humans as individual persons within a meaningful situation, and psychology as aimed at understanding such persons. Buytendijk

transposed this alternative view of psychology to the study of animals. He held that animal behaviour too is not merely the causal effect of bodily and environmental processes, but is meaningful behaviour, though different in character from meaningful human behaviour. In experiments of his own and in discussions of experiments done by other animal scientists, Buytendijk saw and interpreted animal behaviour as expressing meaningful experiences. He saw animal experiences as bound to the present *Umwelt* and bodily possibilities of the animals involved. Three examples of such interpretations will be described, namely habit formation in toads, intelligence of chimpanzees and animal pain.

By a reconstruction of Buytendijk's method I will develop an interpretative method for studying animal behaviour (chapter IX). This can be seen as an answer to the second question of this book, namely that of a method to know subjective animal experiences. This method will be developed by comparing it with the understanding method of hermeneutics and the Utrecht School. This comparison consists of four issues: the subject matter (respectively animal and human experiences), the context of understanding (respectively the species-specific and personal, cultural and historical way of life), the hermeneutical circle (i.e., going to and fro between the assumed meaning of particular expressions and its assumed context of understanding), and the issue of single and double hermeneutics (i.e., whether we are able to understand animals as they understand themselves). Then I will discuss the relationship between the developed interpretative method for investigating animal behaviour and various natural-scientific methods for studying animal behaviour. At the end of this chapter, four principles of an interpretative approach to animal welfare will be formulated.

In order to show the need for and possibility of an interpretative approach to animal welfare, in addition to the natural-scientific approach, I will critically discuss two contemporary debates within animal welfare science (chapter X). The first debate is about the concept of animal welfare and the method for knowing animal feelings of welfare. This debate took place at a conference about welfare of domestic animals in 1994. Especially the issue of how to acquire knowledge of animal feelings of welfare, shows the insufficiency of natural-scientific approaches. Many animal welfare scientists say that measurements of adrenal activity or heart rate indirectly refer to animal feelings of welfare. Such measurements, however, are only indicative of physical states and processes that we call good or poor welfare. As one of the participants of this conference said: if animal feelings are a fundamental aspect of animal welfare, then a method to know animal feelings has to be developed.

The second debate is about the welfare of farm mink. This debate took place in the Netherlands a few years ago. The different participants in this debate disagreed upon the question of whether particular behaviours of farm mink counted as expressions of poor welfare. This debate shows that it is impossible to reach such an agreement by a natural-scientific approach alone. The implicit interpretations of animal behaviour that are present in this approach have to be made explicit, so that they can become amenable to a systematic and methodical discussion.

At the end of this book (chapter XI), I will return to the four previously formulated principles of an interpretative approach to animal welfare. I hope to show their fruitfulness by means of examples derived from the two contemporary animal welfare debates.

PART ONE

CHAPTER II

WIEPKEMA AND TOATES: ANIMALS AS EMOTIONAL SYSTEMS

Piet Wiepkema, now Professor Emeritus at the Department of Animal Husbandry-Ethology of Wageningen Agricultural University, was one of the first university ethologists in the Netherlands to study welfare of, mainly, domestic animals. At that time, about 20 years ago, only a few ethologists did applied research on animal welfare problems (for example, on the relationship between housing systems and the welfare of farm animals). Wiepkema gave such research a theoretical basis. Most of the other ethologists at that time adopted Tinbergen's view and thought that speaking of animal emotions such as welfare was nonsense or sentimental, unscientific talk (see the previous chapter). During the symposium held in Wageningen on the occasion of Wiepkema's farewell, the British ethologist Frederick Toates confessed that he had been among those ethologists. He described his subsequent adoption of Wiepkema's ethological ideas about animal welfare as no less than a paradigm shift, a revolutionary change of belief. After this change he became a staunch advocate of Wiepkema's animal welfare theory.

Wiepkema and Toates conceive of animal welfare as emotions of animals. Therefore, their animal welfare theory takes the form of a general theory of animal and human emotions. In this chapter I will first present their theory of emotions (II.1); then I will discuss the problem of the relation between this theory and subjective animal experiences such as welfare (II.2), and finally I will offer my criticism of their animal welfare theory (II.3).

1. An explanatory theory of emotions

Wiepkema and Toates' theory of emotions is a cognitive as well as cybernetic theory. Cognitive theories in psychology and ethology explain observable human and animal behaviour, but also computer performances, as the effects of informational structures and processes in, for instance, human and animal brains or electronic hardware. Chomsky's theory of language and Dennett's theory of consciousness are the most well known examples of cognitive theories. Most cognitive scientists hold that their theories only concern non-conscious mental phenomena and do not indicate anything about conscious phenomena. Chomsky, for instance, does not consider grammatically correct speaking a conscious phenomenon but an unconscious process caused by an innate, universal grammatical structure and ditto rules. In the same way, cognitive ethologists explain animal behaviour as caused by informational structures and processes. Griffin's cognitive research on animals is a case in point: it does not indicate anything about subjective animal experience, according to some

cognitive ethologists (see Burghardt, 1991). Later we will see how Wiepkema and Toates relate their cognitive view on animal welfare to subjective animal experiences of welfare. Cybernetic theories are a special type of system theory. System theories explain the organization of open systems in a changing environment. The maintenance of a particular organization is seen as the goal of the processes in these systems. This goal is called the “homeostatic state”. Cybernetic systems maintain or restore a homeostatic state by means of positive or negative feedback processes. These processes consist of a monitor, which records the deviation from the homeostatic state and stimulates or stops the ongoing processes, depending on whether this deviation becomes smaller or larger. A well-known example of a cybernetic system is a central heating system with a thermostat (Von Bertalanffy, 1968/1972).

Motivational systems

Wiepkema and Toates start with a simple theoretical model of animals that, in the course of their elaboration, becomes more complex.¹ They begin by conceiving of animals as systems which ‘strive’ to maintain or restore a homeostatic state in relation to their environment. ‘Striving’ should not be understood as consciously trying to realize a goal, but simply as a tendency to realize the same goal under various environmental conditions. Wiepkema and Toates conceptualize homeostatic states as states in which there is no difference between *Sollwerte* (should-values or set-points) and *Istwerte* (factual values) regarding the environment.

At this stage of the analysis, there is no difference between regulation of the temperature by central heating systems and regulation of body temperature by animals (Toates, 1987, p.165).

The first difference between artificial and living systems concerns the origin of *Sollwerte*. In artificial systems, humans determine, set and change these. Residents determine the desired temperature in their houses. In animals, *Sollwerte* are not human ends but are set evolutionarily, ontogenetically or by learning processes (see, for instance, Wiepkema, 1987). Evolutionarily set *Sollwerte* are genetically fixed and are, therefore, irreversible and unchangeable by individual animals. Ontogenetically set *Sollwerte* are set during a specified period in the animal’s life called the “critical period”. These are irreversibly imprinted into their brains and are therefore unchangeable. A famous example of this type of *Sollwerte* is provided by young birds of many species who follow the first living being they see after hatching. Most of the time this will be their mother, but readers of this book will probably have seen pictures of young geese following the ethologist Lorenz. He was the first living being they saw after hatching. *Sollwerte* that are planted into animal brains as a result of learning processes are reversible and changeable through new learning processes.

¹ For the sake of the readability of this text and because also Wiepkema and Toates themselves are writing about only animals, I leave humans aside here, although their theory actually concerns human emotions too.

One might object that there are also learning machines, which in a similar way seem to change their own set-points. In machines, however, the learning processes are pre-programmed and therefore inflexible, while animal learning processes are flexible, albeit within limits. Machines can only adopt new *Sollwerte* if these are written down in their programme by humans beforehand. Learning by animals, on the other hand, is flexible and not pre-programmed (Buytendijk & Christian, 1963, pp.102-103). For example, many domestic animals learn to adapt themselves to regular times for feeding. Such a new *Sollwert* has not been installed beforehand by their owners. In summary, the difference between *Sollwerte* of artificial systems and those of animals is that the former are determined and pre-programmed by humans, while the latter are set evolutionarily, ontogenetically or by learning processes.

As soon as a factual environmental value differs from the set-point, artificial as well as living systems will strive to reduce this difference. Wiepkema and Toates call this striving "motivation" (Toates, 1987, pp.164-166; Toates, 1988, pp.13-15; Wiepkema, 1987, pp.120-121). The exact meaning of this concept is not clear, however. Generally, a motivation is a tendency to reduce a difference between *Istwert* and *Sollwert*. It is not clear whether any reduction of such a difference and in any cybernetic system involves a motivation. Toates seems to restrict motivations to learning processes in animals. Inflexible behaviour such as a reflex does not need a mediating motivation because genes and the environment fully determine this behaviour, he says (Toates, 1995, pp.17-18). Learning by animals indeed requires a mediation between the environment, possible forms of behaviour and the animals' memory. However, also in learning machines there must be some kind of mediation between the environment, the machine's memory and possible pre-programmed motions of the machine. Although we may not be inclined to speak of the motivation of a robot because this concept already refers to some kind of subjectivity, there is no theoretical reason to restrict motivations to learning animals. In the following chapter, we will see that in Dawkins' animal welfare theory this question is more urgent because she claims to be able to measure the animals' motivation. Below we will see that this same question, but now concerning emotions, also emerges in the theory of Wiepkema and Toates.

Emotional systems

As already stated, Wiepkema and Toates conceive of animals as cybernetic systems whose behaviour is regulated by feedback mechanisms. *Animal emotions are part of these feedback mechanisms, namely as recorders of trials to reduce differences between Istwerte and Sollwerte and as controllers of motivations and behaviour.* If an animal fails to reduce a difference between an *Istwert* and a *Sollwert*, then this is recorded as a negative emotion which, in its turn, stops the particular form of behaviour and activates the motivation to another form of behaviour. A successful trial is recorded as a positive emotion that stimulates the behaviour in question to continue (Toates, 1988, p.22; Toates, 1995, pp.15-32; Wiepkema, 1987, pp.128-129).

Emotions are normal recorders and controllers of animal behaviour. Negative emotions

do not always imply poor welfare. Wiepkema and Toates see poor welfare as a long lasting negative emotion. This emotion occurs when the animal involved is not able to change the factual value of an environmental factor into its corresponding *Sollwert* (adjustment of the environment), or is not able to change a *Sollwert* (adjustment to the environment). Long lasting negative emotions are expressed in disturbed animal behaviour such as stress, stereotypies or apathetic behaviour, and in bodily injuries such as ulcers (Toates, 1987, p.182; Wiepkema, 1981b, pp.302-304; Wiepkema, 1987).

Like with regard to motivations, the question is whether emotions only occur in animals or whether they can occur in machines too. We are strongly inclined to say that in machines the registration and control of the motions are not emotional but purely mechanical or informational. It seems that emotions are special kinds of recorders and controllers which are only present in humans and animals. In this case too, Wiepkema and Toates do not offer any theoretical argument to exclude emotions in machines.

The explanatory status of the theory of emotions

However, Wiepkema and Toates' theory of emotions is not a free-floating theory that is applicable to any cybernetic system. They claim that their theory explains the occurrence of affective states (emotions) in animals (Toates, 1988, p.4). Their theory only explains animal behaviour that is assumed to be an expression of emotions (see the following section). Because we do not see the motions of a machine as emotional expressions, my question of whether such motions could be caused by emotions is stupid. Just as the theory of photosynthesis only explains the growth of plants with chlorophyll, the theory of emotions only explains what we see as emotional behaviour in humans and animals.

From a theoretical point of view, this reasoning is legitimate. Cybernetic theories are abstract theories that allow for different kinds of feedback mechanisms: for example, mechanical, electronic and emotional. Wiepkema and Toates see animals as cybernetic systems with feedback mechanisms regulated by emotions. However, this only shifts the problem to the empirical level, namely to the question of why Wiepkema and Toates see animal behaviour as an expression of emotions. Their answer to this question will be examined in the next section.

2. The argument from analogy

Both in ethology and the philosophy of animals, the argument from analogy is a widely used argument to support the thesis that animals have subjective experiences. This argument is based on similarities between human and animal nervous systems, physiological and behavioural processes, and on the fact that humans say they have experiences. From these premises one concludes that animals also have experiences. Ethologists and philosophers use the argument from analogy on two different levels. One level can lead to a conclusion

regarding particular animal experiences similar to human experiences under similar circumstances. A second level can lead to the general conclusion that animals, like humans, are experiencing beings.

Wiepkema and Toates use the argument in the latter way. Wiepkema says that one can better speak of the argument from homology because the analogy argument is actually based on a homology between human and animal biological structures. In biology 'homology' and 'analogy' have a rather specific meaning. Homologous structures are morphologically similar biological structures in different species because of a common descent, for example, the wings of birds and the arms of humans. 'Analogy', by contrast, refers to convergent evolutionary developments. For example, the wings of birds and insects are the outcomes of independent developments that have resulted in a comparable function, although birds and insects do not share a common ancestor with that function. As Wiepkema correctly says, the argument from analogy supposes a homology between humans and animals, regarding their neural structures for instance. However, people who use the argument from analogy do not refer to the aforementioned biological meaning of 'analogy'. They do not state that a comparable function, in this case the capacity for subjective experience, has been developed in different species without a common descent. On the contrary, they often refer to a common descent of humans and particular animals. In the argument from analogy, the concept 'analogy' has a more common-sense meaning. The argument states that it is plausible that homologous behavioural, physiological and brain structures in humans and animals have the same function, namely to generate or express subjective experience. Also Wiepkema implicitly uses this common-sense meaning of 'analogy' in what he calls "the argument from homology". On the basis of the homology between human and vertebrate animal behavioural patterns and their underlying information processing feedback mechanisms, he claims that it is very likely that non-human vertebrates also have experiences (Wiepkema, 1985, p.291; 1987, p.127; 1997, pp.94-95).

Thus, both the usual argument from analogy and Wiepkema's argument from homology simply assume that homologous structures in humans and vertebrate animals have the same function, namely to generate and express subjective experiences. That this is a mere assumption can be seen from the example of the arms of humans and wings of birds. Though being homologous structures, they do not have the same function. Likewise, the homologous information processing mechanisms in animals and humans can have different functions, which have to be established independently (Tschanz, 1997, pp.16-19). Even in humans these mechanisms do not always generate subjective experiences (Bermond, 1997). From a scientific point of view, the argument from analogy is a disputable argument.

Wiepkema also admits that his argument from homology is not scientifically or logically valid. He concedes that the assumption that vertebrate animals are experiencing beings might be rather naive (Wiepkema, 1987, p.126). Toates strengthens the argument from homology by also mentioning the sympathy we feel with animals. This is a further argument for concluding that vertebrate animals are experiencing beings. However, both arguments do not

provide “hard evidence” for the existence of animal emotions, he admits (Toates, 1988, p.4). *The assumptive and scientifically controversial character of the argument from analogy has a quite dramatic implication for Wiepkema and Toates’ theory of animal emotions. It implies that their whole theory of animal emotions is based on the assumption rather than demonstration that vertebrate animals are experiencing beings.* If this assumption were not true, the theoretical explanation of animal behaviour by means of emotions would be as silly as the explanation of machine motions by means of emotions. Besides this thread on which their theory hangs, I have more comments on their theory itself.

3. Natural-scientific ethology and animal experience

In chapter one I said that it is amazing that many contemporary ethologists speak of animal experiences, but at the same time stick to Tinbergen’s aims and methods of ethology that forbid speaking of animal experiences. Do Wiepkema and Toates violate Tinbergen’s precepts?

In a certain respect they do. Tinbergen’s precepts aim at the removal from ethology of any concept that refers to subjective animal phenomena as causes of animal behaviour. Ethology must explain animal behaviour as the effect of (neuro)physiological causes and environmental factors (Tinbergen, 1965). *In positioning animal emotions as part of the causal basis of animal behaviour, Wiepkema and Toates reject this aim of ethology.*

In another respect, however, they do not oppose Tinbergen’s view on ethology. Tinbergen wanted ethology to be a natural-science, by which he meant that ethology should develop causal-explanatory theories on the basis of observations and experiments (Tinbergen, 1965). Wiepkema and Toates adopt this method. Although they claim that their theory explains animal emotions, actually it explains animal behaviour which they assume to be emotional behaviour. It explains, for example, disturbed behaviour as caused by the experience of poor welfare. This explanation can be evaluated by testing the relationship between the presumed causes of this experience and the resulting disturbed behaviour (for example, by comparing different housing systems). Such experimental animal welfare research is quite common. In such research, however, animal experiences themselves are not studied but only their causes and effects. *So, with regard to the method used, Wiepkema and Toates’ theory of animal emotions is in accordance with Tinbergen’s natural-scientific view on ethology.*

The main difference is that Tinbergen does not admit concepts such as “emotion” within the realm of ethology because such subjectivating concepts do not refer to observable states or processes (Tinbergen, 1965, p.413). However, the way in which Wiepkema and Toates theoretically conceptualize animal emotions is not subjectivating at all. On the contrary. Wiepkema, Toates and many other ethologists admit that speaking of animal emotions in ethology is problematic because emotions refer to unobservable mental states or processes.

We cannot ask animals to confirm the presence of such states or processes. Griffin and Rollin (two proponents of research into animal experiences), notice, however, that in many other natural-scientific disciplines, unobservable entities are not seen as problematic. Before anyone had observed chromosomes and their structure, geneticists used the concept of “genes” without problems. At that time, genes were unobservable, purely theoretical entities that geneticists used to explain the observed heredity of properties of organisms (Griffin, 1976/1981, pp.115-116). Also physicists speak without any problem of unobservable entities such as quarks (Rollin, 1996, p.9). Wiepkema, in following Griffin, concludes that the impossibility of observing animal experiences does not seem to be an obstacle to admitting them within a natural-scientific discipline (Wiepkema, 1981a, p.822). Whether or not animal emotions can actually ever be observed as genes finally were, viewed in this way they are comparable with unobservable, purely theoretical entities in physics.

In the first section of this chapter, we saw that Wiepkema and Toates use the concept of emotion in such a way. As an element of feedback mechanisms, animal emotion is only a hypothetico-theoretical concept intended for explaining particular forms of animal behaviour and physiological states. But, as Wemelsfelder says, why should we call these unobservable entities or states “emotion”, a word with so many other than scientific-theoretical connotations (Wemelsfelder, 1993, p.47). One can also say that the feedback mechanisms of animals contain as yet unknown and possibly never observable monitors and controllers of behaviour. The reason why Wiepkema, Toates and other ethologists use the word “emotion” is that they assume that the behaviour and physiological states of animals are emotional behaviour and states. However, as Toates recognizes, there is indeed no hard, natural-scientific evidence for this assumption.

Wemelsfelder criticizes Wiepkema and Toates’ conception of animal emotions because of its mechanistic character, i.e., because it sees emotions as unobservable, internal causes of animal behaviour (Wemelsfelder, 1993, pp.44-58). I fully agree with this criticism. *In seeing animal emotions as causes of animal behaviour, one misses an important element of their meaning, namely that they contain what matters to animals.* This subjective characteristic of animal experiences disappears when they are viewed in a natural-scientific, mechanistic way. The primary characteristic of natural-science is that it sees its subject matter as law-governed things, of which it is denied that what happens to them matters to them. I call this an “objectivating view” on the subject matter. To say that only natural-scientific evidence is hard evidence for the existence of animal experiences, implies that one can never get this evidence because that is exactly what an objectivating view precludes. So, *Wiepkema and Toates seem to confront themselves with a dilemma. Either they adopt a natural-scientific view and thereby have to admit that the scientific part of their animal welfare theory does not concern animal welfare as a subjective experience, or they hold onto the subjective character of animal experiences of welfare and thereby have to moderate the natural-scientific view.*

CHAPTER III

DAWKINS: “FROM THE ANIMAL’S POINT OF VIEW”

In 1980 Marian Dawkins published the book *Animal suffering* with the subtitle *The science of animal welfare*. The central thesis of this book is that it is possible to obtain knowledge of subjective animal experiences without violating the criteria of science (Dawkins, 1980, p.vii). The book starts with a criticism of behaviouristic ethologists and psychologists who hold that scientific research into animal and human subjective experiences is impossible because these experiences are private and unobservable. Dawkins also sees subjective experiences as private and unobservable, but she holds that this does not preclude that it is possible to study them scientifically (Dawkins, 1980, p.11).

In her book Dawkins discusses several criteria used by other ethologists to ascertain the particular animal experience of suffering, such as illness, unnatural behaviour or physiological parameters. Her conclusion is that each of these criteria is inadequate but that together they can provide sufficient grounds for the statement that animals suffer under particular circumstances (Dawkins, 1980, p.108). In her later work Dawkins focuses on one method to assess animal suffering, namely by means of preference tests. Especially in her book *Through our eyes only* (1993), it seems to be her considered view that this method alone is sufficient for concluding that animals suffer in particular circumstances.

In this chapter I will first expound Dawkins’ method to measure animal suffering by means of preference tests (III.1); then two reconstructions of the theoretical background of this method will be given, namely a logical behaviouristic one and one in accordance with Wiepkema and Toates’ animal welfare theory (III.2), and finally I will give my comments on Dawkins’ concept of animal suffering and her method of research for studying it (III.3).

1. Suffering and welfare from the animals’ point of view

Dawkins did not develop an explanatory theory of animal suffering, as Toates and Wiepkema did with regard to animal welfare, but only a method to measure it.

Long-term and short-term animal needs

Dawkins writes in terms of animal needs, which imply behavioural motivations. Against those animal welfare investigators who use the survival value of behaviour as a criterion of animal welfare, Dawkins argues that animal welfare does not depend on long-term but on short-term needs. Long-term needs are needs that, when not fulfilled, will jeopardize the

chance of survival or reproduction.¹ Short-term needs, on the other hand, do not concern the distant future but the actual situation. *Not a future effect of their behaviour but an unfulfilled proximate need is the cause of animal suffering, she says* (Dawkins, 1983, p.1197; 1990a, p.3). For example, a battery hen who tries to perform dustbathing behaviour on a grid floor suffers because she cannot fulfil her need to dustbath. The long-term effect that the energy used turns out to be wasted energy is not the cause of her actual suffering, Dawkins would say.

In animals in the free nature, the long-term and short-term needs mostly coincide. But especially when we consider domestic animals, the distinction between long-term and short-term needs appears quite clear. For example, in free migratory birds the short-term need to move in a particular period coincides with the survival value of migrating behaviour. In caged migratory birds, however, the short-term need to move, which expresses itself in escape behaviour, does not coincide with the survival value of this behaviour. On the contrary, probably their chance of survival in a cage is much better than that of their free conspecifics who are able to migrate. The need of caged migratory birds to move is, under the given circumstances, merely an innate short-term need without any survival value under the current circumstances (Dawkins, 1983, p.1197; 1990a, p.3).

Motivational basis of suffering

Needs imply motivations to perform particular behaviour. The need of migratory birds to move implies the motivation to fly away. Dawkins states that a motivation to perform behaviour that is inhibited is the cause of animal suffering. *Not every inability to perform motivated behaviour causes animal suffering, however, but only the inability to perform behaviour for which the motivation is high* (Dawkins, 1990a, p.4). The question is how to measure the intensity of animal motivations, and at which intensity the animals suffer.

Measuring animal motivations

Dawkins' method to measure the intensity of animal motivations comes down to the application of an economic theory to animals (Dawkins, 1983, pp.1198-1200; 1990a, pp.5-7). This economic theory states that the price people are willing to pay for a particular commodity is a measure of their motivation to get that commodity. The ratio of the increase in price and the increase in demand is a measure of the intensity of the motivation to get that commodity. If, for instance, the price increases and the demand does not change, then people have a high motivation to get that commodity. Such a commodity is called "inelastic". Examples of inelastic commodities are food and drink.

Dawkins applies this economic theory to animals by offering them different environments

¹ Basically Dawkins says that long-term needs are not needs at all. She states that the survival value of behaviour is an objective function of behaviour that can only be established by biologists (Dawkins, 1990a, pp.2-3).

(like human consumers are offered different commodities) for which they have to spend an increasing amount of energy or time to attain or avoid them (like human consumers have to pay more or less for commodities). By using such so-called “preference tests” it is possible to measure the intensity of the animals’ motivation to attain or avoid certain environments. Dawkins considers the intensity of the animal’s motivation to attain food or water the benchmark of suffering. Only if a motivation to try to attain or avoid something else is as high or higher, animals are held to suffer. For example, the motivation of pigs to get food was higher than their motivation to have social contact with other pigs (Dawkins, 1993, pp.157-159). From these research results one must conclude that pigs do not suffer when housed in isolation from other pigs.

2. Two theoretical backgrounds

Although the economic theory and Dawkins’ application of it to animals are very clear, Dawkins also uses some terms that do not fit in this economic theory. She also seems to refer to a theory about suffering which is more in line with that of Wiepkema and Toates. Let me first explain Dawkins’ other theoretical background, namely her use of economic theory.

Different kinds of behaviourism

Behaviourism is the great theoretical scapegoat in animal welfare science because it is held responsible for the extrusion of animal experiences from ethological science. Dawkins also criticizes behaviourism for this reason. Dawkins discerns two kinds of behaviourism: the variety that says that subjective experiences might exist but are not scientifically accessible because of their private and unobservable character, and the variety that says that, because subjective experiences are not accessible for scientific research, they do not exist (Dawkins, 1980, p.12). Indeed, in these two kinds of behaviouristic science, speaking of animal suffering and animal welfare is anathema.

There is a third kind of behaviourism, however, in which speaking in these terms is not anathema. This kind allows subjectivating terms, provided that one can define these terms in observable entities or processes, for example behaviour. ‘Define’ has to be taken in its literal sense: terms such as motivation and emotion are nothing more than the name given to a particular behaviour. The meaning of such terms is similar to that of the term growth rate in physiological theories, which is just a name that refers to the increase of organic material per time unit. This kind of behaviourism is called “logical-behaviourism” because of its emphasis on definitions. *According to this kind of behaviourism, it is possible to do scientific research into animal experiences, provided that this term does not refer to the subjective experience of its subject matter but only to their behaviour.* (See for a critical review of this kind of behaviourism Holzkamp, 1985, p.21.) In her criticism of behaviourism, Dawkins does not recognize this kind of behaviourism and even worse. Her

own method to measure animal suffering can be construed as an example of this particular variety of behaviourism.

From the behaviourist's point of view

Although Dawkins criticizes behaviouristic ethologists because they exclude subjective experiences from science, the economic theory she herself applies to animals is a behaviouristic theory also (see Jamieson, 1990, p.25; Segal, 1990, p.36). In this theory the consumers' motivation to get a commodity is defined in terms of their observable buying behaviour when prices increase. Dawkins applies this definition of motivation to animals. She defines 'animal motivation' as the observable amount of operant behaviour to attain or avoid particular environmental conditions. In the economic theory under consideration, however, motivations are just words that refer to consumers' buying behaviour while prices increase. Just as growth rates are only concepts in the minds of physiologists, so motivations are only concepts in the minds of economists. Consumers just exhibit buying behaviour. Applying this theory to animals, implies that animal motivations are simply concepts in the heads of ethologists, not something in the animals' heads.

The same can be said of animal suffering. Dawkins' definition of 'suffering' is that animals suffer when their motivation to try to perform a particular behaviour is as high as, or higher than, their motivation to get food or water. This is an arbitrary line between suffering and not suffering, which Dawkins alone postulates, not the animals themselves. It can also be said that animals suffer extremely when they cannot get water, and that a lower motivation than that for water implies suffering too, albeit less. *Viewed in this way, animal suffering is nothing more than particular animal behaviour exhibited in preference tests, which Dawkins calls "suffering". This contradicts her statement that animal suffering implies an animal's point of view* (Dawkins, 1990a, p.1).

Here we meet the same problem as in Wiepkema and Toates concerning their concepts of motivation and emotion. In the previous chapter, I also raised the question of whether 'motivation' is just a name for a difference between *Sollwert* and *Istwert*, so that also machines can be said to have motivations. Viewed in a scientific light, Wiepkema and Toates' concept of emotion is also just a theoretical concept in their, not the animals', heads.

Natural-scientific theory of emotions

Dawkins also uses a terminology that refers to another theoretical background and which looks more like that of Wiepkema and Toates. Repeatedly she speaks of animal motivations and emotions as causes of animal behaviour (Dawkins, 1990a, p.3; 1993, pp.167-168). Like Griffin, Rollin and Wiepkema, she also compares animal emotions with unobservable entities in physics (Dawkins, 1993, p.167-168). However, Dawkins is less clear about the status of emotions than Wiepkema and Toates. On the one hand she says, like Wiepkema and Toates, that both animal motivations and emotions are causes of behaviour (Dawkins, 1993, p.142) and on the other hand she says that only animal motivations are causes of behaviour

(Dawkins, 1990a, p.4; 1993, p.163-164). In the latter case animal emotions seem to be epiphenomena of motivations or behaviour. *This terminology refers to a natural-scientific theory about animal motivations and emotions instead of a logical-behaviouristic one. Now concepts like 'motivation' and 'emotion' are not just abbreviations of particular forms of animal behaviour; they refer to unobservable entities that cause observable animal behaviour.*

3. The argument from analogy again

The aim of Dawkins' method for measuring the intensity of animal motivations is to say something about the subjective animal experience of suffering. In the given reconstructions of the theoretical background of this method, suffering as a subjective experience did not show up. In the logical-behaviouristic reconstruction, suffering is just a name for a particular animal behaviour. In the natural-scientific reconstruction, emotions such as suffering are just theoretical concepts comparable to theoretical concepts in physics. Hence, Dawkins also uses the argument from analogy to support her claim that animals subjectively experience their situation (Dawkins, 1990a, p.4; 1993, pp.12-13 and pp.163-164). Like Wiepkema and Toates, she admits that the argument from analogy is not hard scientific evidence for animal emotions but an assumption, as testified by the next quote:

"But if we had prior evidence that an animal had strong motivation to escape or to obtain something and was prevented from doing so we could assume that this condition was accompanied by an unpleasant experience, as it would be in the case of a human being." (Dawkins, 1990a, p.4).

Dawkins repeatedly says that she demonstrates that animal emotions are accessible to scientific research (Dawkins, 1990a, p.1; 1993, pp.177-178). My conclusion is that her scientific method to measure animal suffering, as derived from either a logical-behaviouristic or a natural-scientific theory, does not indicate anything at all about subjective animal experiences. In order to say something about subjective animal experiences (such as suffering), Dawkins also needs the questionable argument from analogy. *By using the argument from analogy, Dawkins' scientific method to measure animal suffering hangs by the same thread as Toates and Wiepkema's theory.*

INTERMEDIATE REFLECTIONS 1

In the last two chapters, I have discussed two ethological theories about animal welfare. Of course there are more such theories, but I think that most of them raise the same philosophical problems as discussed here and that, therefore, the following comments will apply to them as well. In chapter X, which deals with two contemporary animal welfare debates, we will see that the ones discussed are very common in animal welfare science.

The problem with these kinds of ethological animal welfare theories is that there is a friction between their initial purpose and their result. They want to indicate something about subjective animal experiences, but in the end they conceive of these as objective things or processes. This conflict is due to the ethologists' sticking to the natural-scientific approach. Because ethologists see the model of physics as the only model of science, they can only conceive of animal experiences as law-governed phenomena, that is as objects. The most extreme example is the comparison that both Wiepkema and Dawkins make between animal experiences and theoretical entities in natural science. Stafleu and others write about "the erosion of a moral concept". With this phrase they refer to the loss of the morally relevant, common-sense meaning of animal welfare in the scientific conception, namely that it involves animal experiences (Stafleu, et al., 1996). In the foregoing chapters we saw that in a natural-scientific view on animal experience the common-sense meaning of experiences gets lost, namely that they are subjectively lived.

As we saw, there are at least two ways to objectify animal experiences. The most common way is that of Toates and Wiepkema. They conceive of animal experiences as internal causes of animal behaviour. This way is in accordance with the natural-scientific view on theories: to explain observed phenomena as being caused by sometimes initially and sometimes forever unobservable entities, structures or processes. A less common way is the logical-behaviouristic way. Logical-behaviourists also conceive of animal experiences, for instance suffering, as law-governed phenomena. These laws relate observable animal behaviour to observable environmental conditions. Particular forms of behaviour under particular conditions are called "suffering", "welfare", and so on. For some reason or other, ethologists and philosophers of animals, even those who criticize behaviourism, have a tendency to overlook logical-behaviourism. This may even result in an unintended and unavowed defence of logical-behaviourism, as happens with Dawkins.¹ Because the way used by Wiepkema and Toates to objectify animal experiences is most common, I will from now on leave aside logical-behaviourism.

¹ The same is true for Wemelsfelder who even refers to Ryle, the founder of logical-behaviourism, for justifying her own conceptualization of subjective animal experiences (Wemelsfelder, 1993, p.74-76).

The natural-scientific approach confronts ethologists with the problem of how to relate animal experiences conceived of as mere theoretical concepts to subjective experiences of animals. Usually they do this by the argument from analogy. As Toates, Wiepkema and Dawkins admit, this argument is not scientific but “a rather naive assumption” (Wiepkema). *This implies that natural-scientific ethological theories depend on a mere assumption for reaching their aim to indicate something about subjective animal experiences.*

Because of the assumption that makes up the argument from analogy, it is correct that Toates speaks of the change of his belief in subjective animal experiences. Rollin also speaks in terms of a change of belief. The adoption of the belief in animal experiences has led to a new paradigm in ethology, he says, of which he designates Griffin as the founder (Rollin, 1989). *I agree that the recognition of subjective animal experiences in ethology implied a paradigmatic change. But I think this change was not profound enough.* The only thing that has changed in ethological science is that concepts such as animal welfare and animal suffering are no longer anathema. Most ethologists, however, incorporate these concepts in the old ethological paradigm advocated by Tinbergen. This paradigm states that ethology, as a natural science, must causally explain observed animal behaviour. Given their acceptance of Tinbergen’s precepts for ethology, animal welfare scientists conceive of animal experiences as internal, unobservable causes of observable animal behaviour.² In this sense the meaning of ‘animal experience’ is purely theoretical, because experiences have not been observed. (Perhaps Tinbergen would have had less objection to concepts such as suffering in this restricted sense.) As a purely theoretical concept, ‘animal experience’ does not need to refer to what we normally call experience. In order to relate their theories to subjective animal experiences, ethologists use the argument from analogy. They acknowledge that this argument remains an assumption as long as a direct access to animal experiences is impossible. *I believe that, in order to obtain this access, ethologists should give up their natural-scientific view on animal experiences as the only legitimate view.*

For most ethologists, however, giving up the natural-scientific model of science is the same as giving up science itself. They may recognize more kinds of knowledge, at least in ordinary life, but they hold onto natural-scientific knowledge as the only kind of real, true or provable knowledge. This is also Dawkins’ answer to some of her critics who refer to non-natural-scientific conceptions of subjective experiences, such as those of Wittgenstein, Heidegger and Merleau-Ponty: “Although I sympathise in some ways with their view of animals, I feel that it is important to attempt to put the study of animal welfare on a scientific footing.” (Dawkins, 1990b, p.49). Undoubtedly Dawkins equates science with natural science. Wittgenstein, Heidegger and Merleau-Ponty, however, belong to a tradition that

² This conception of animal experiences is even more Cartesian than that of Descartes, who is so much detested by the same ethologists. Descartes saw experiences as another substance (*res cogitans*) than physical bodies and things (*res extensa*). Only physical bodies and things can be causally explained, he held.

states that experiences cannot be studied in a natural-scientific way.

Within the human sciences such as sociology, psychology, or cultural anthropology there is more than one view on scientific knowledge of human experiences. On the one hand there is the view that studies human experience in a natural-scientific way, of which the aforementioned economic theory is an example. On the other hand there are various views that all want to preserve in their concepts and method the character of human experience as subjective experience, for instance the view of Wittgenstein, Heidegger and Merleau-Ponty. The most well known of the second category of views on human experience is the hermeneutic view, as adopted by, for example, the cultural anthropologist Geertz. *Dawkins' reply to her critics quoted above makes clear that ethologists not only have to give up their natural-scientific view on animal experiences but also their scientism. They have to give up their belief that natural-scientific knowledge is the only sound knowledge.*

Because the conceptualization of animal experiences seems to be the primary problem of animal welfare science, I will turn my thoughts to the side that is opposite to natural science. In the following two chapters, I will explore the hermeneutic concept of subjective experience, its method of knowing experience, and whether this concept and method can be applied to animals. I choose to discuss the hermeneutic view on these issues because it is the most comprehensive one. It consists of a philosophical concept of experiences and a methodology for understanding experiences based on this concept. Thus, hermeneutics perhaps can provide me with a fruitful model of research into subjective animal experiences.

CHAPTER IV

DILTHEY: “WE EXPLAIN NATURE, AND UNDERSTAND LIFE”

Wilhelm Dilthey (1833-1911) was one of the founding fathers of 20th Century hermeneutics, which distinguishes the method of scientific explanation from the method of understanding. The latter method claims to do more justice to the subjective aspects of experiences than the discussed natural-scientific method of ethology for instance. Generally, hermeneutics aims at understanding the meaning of behaviour, statements, texts, artefacts, etc. For this book about understanding animal experiences, hermeneutics is only relevant as far as it concerns the understanding of behavioural and other bodily expressions of experiences. The hermeneutic concept of subjective experiences (as opposed to objective things and occurrences) and its method of understanding behaviour (as opposed to causal explanations of behaviour) will be discussed.

In this chapter I shall give Dilthey's view on both matters; and in the following chapter I shall give Gadamer's view. The main question to ask both founding fathers of 20th Century hermeneutics is, of course, what they say about animal experiences, and the way to gain knowledge of these experiences. I will argue firstly that, especially with regard to animal experiences, it is useful to distinguish between Dilthey's early writings (up until about 1907) and the ones he wrote during the last years of his life (IV.1). I will then give the views of the early and the later Dilthey on experiences and knowledge of experiences, in particular animal experiences (IV.2 and IV.3 respectively). Finally, some problems concerning the understanding of animal experiences will be formulated in light of the distinction between the early and the later Dilthey (IV.4).

1. Psychology and hermeneutics in Dilthey

The most widely accepted interpretation of Dilthey's statement (GS V, p.144) that I used as the title of this chapter is that 'life' means human life.¹ According to this interpretation, non-human nature can only be explained causally and only humans can be understood as expressing meanings.² Dilthey is believed to have said that animals belong to the nature that we can only explain causally (see, for instance, Kockelkoren, 1992, pp.39-40). Although Dilthey himself later equates life with human life (GS VII, pp.228-229), this conclusion is

¹ References to Dilthey's works will be given by referring to pages in the volumes of his collected writings (GS). Regarding the used edition, see the list of references at the end of this book.

² In this book 'meaning' is the - understandable - meaning of experiences as well as expressions, in the sense of the meaning of expressed experiences.

certainly wrong with regard to his early writings.³ In philosophy it is common practice to speak about the early “psychologistic” and the later “hermeneutic” Dilthey. The early Dilthey is called “psychologistic” because of the emphasis he lays on the psychological basis of the understanding sciences. In Dilthey’s early writings, understanding is the same as understanding the psychic lives of others (see IV.2).⁴ Later Dilthey broadens this psychological basis into a philosophical hermeneutical basis, which clarifies the connection between experiences, expressions and understanding. He sees this connection as culturally and historically acquired. Hence, understanding is the understanding of the cultural and historical meaning of expressions, including expressed experiences.

Some authors stress that it is wrong to speak of a rupture between the early and the later Dilthey. They say that the difference in Dilthey’s writings is a matter of emphasis (Keulartz, 1994, p.40; Rodi, 1987, p.113). In his later writings, Dilthey has incorporated the concept of psychic life into his philosophical hermeneutics, they say he still mentions the general structure of psychic life as described and analyzed in his early works; experiences are still of the same general structure, although the connection between experiences, expressions and understanding is cultural and historical (Keulartz, 1994, p.33). Because the later Dilthey embeds his former psychological basis of hermeneutics in a broader basis, the above authors conclude that the difference between the early and the later Dilthey is a matter of emphasis. Whether a matter of rupture or emphasis, especially with regard to understanding animal experiences, it is useful to make the distinction between the early and the later Dilthey.

In his early writings, in which Dilthey describes and analyzes psychic lives, he explicitly says that higher animals have a psychic life too. We humans actually understand the behaviour of these animals as if they were an expression of experiences. We do so by reliving these experiences as our own experiences. For example, we understand the scream of a piglet being castrated without anaesthesia as an expression of pain because we ourselves almost feel the pain when treated that way (see IV.2). So, higher animals do not seem to belong to nature that we can only explain causally. This is contrary to the usual interpretation of Dilthey’s statement that “we explain nature and understand life.” In his later works, Dilthey only writes about understanding culturally and historically mediated experiences and expressions which are based on reciprocal understanding. Since reciprocal understanding and

³ A possible reason for this misinterpretation of Dilthey’s statement is that the German term *Seelenleben*, which Dilthey himself often uses, is translated by many authors as ‘life’ (see also below).

⁴ Dilthey often abbreviates “*Seelenleben*”, the word which he often uses in the original German texts, into *Leben*. This is confusing with regard to plants and animals. All plants and animals are living beings, but, as we will see, not all of them have a *Seelenleben* too. De Mul and Hodges translate the rather anachronistic term *Seelenleben* into “psychic life” (De Mul, 1993; Hodges, 1952). This is a good translation, especially for Dilthey’s early writings, provided that ‘psychic’ is not understood as concerning only feelings and emotions. Another good translation of *Seelenleben* that is used sometimes, for example by Hodges, is “mental life”. In this chapter, I will use psychic life, or just experiences which make up psychic lives.

therefore culture and history are missing between animals and humans, this would appear to rule out both the existence and understanding of animal experiences (see IV.3).⁵ This is in accordance with Dilthey's equation of life with human life. It also confirms the usual interpretation of Dilthey's statement, namely that we can only understand human life.

2. The psychic life of humans and higher animals

In Dilthey's early writings, the basis of the understanding sciences consists of what he calls a "descriptive and analytical psychology". This psychology describes and analyzes psychic lives on lived experiences (*Erlebnisse*) as these happen to us. (Dilthey writes about lived experiences as given to us.)

The structure of psychic lives

Dilthey states that all psychic lives are of the same general structure. *The first characteristic of psychic lives is that their general structure consists of a connection between representations (Vorstellungen), drives and feelings (Gefühls- und Triebleben) and intentions (Willenstätigkeiten)* (GS V, pp.201-207). Drives and feelings are the central components of a psychic life because they imply a valuation of representations and because they are the origin of intentions. A feeling of pain, for instance, is a negative valuation of a particular bodily situation, and is the origin of the intention to escape from this situation. Particular experiences differ because of different emphases on the components of the psychic life (GS V, pp.177-180). While solving a mathematical problem, feelings are less important than while in pain.

The second characteristic of psychic lives is that they possess an immanent, subjective purposefulness (GS V, pp.207-208). The purposefulness of psychic lives means that representations, drives, feelings and intentions are connected in such a way that they in a purposive way constitute the interactions with the environment. This purposefulness is subjective because it is a connection of the components of lived experiences. Especially feelings, as components of psychic lives, account for this subjective purposefulness because feelings are experiences of representations and intentions. This subjective purposefulness is immanent because it is given with psychic lives, not imposed on them. Dilthey says that we can verify these statements about the general structure of psychic life by means of introspection, that is by 'looking at' our own lived experiences as these occur (GS V, p.152).

⁵ This cannot be said for sure, because not all of Dilthey's late work has been published yet.

Human and animal experiences

Taking a closer look at the structure of lived experiences, let us start with human experiences, which Dilthey sees as mediated by biological and spiritual (*geistige*) drives.⁶ Biological drives serve the survival of the individual or the species in a physical environment. Dilthey mentions three biological drives namely: feeding, sexual intercourse and care for offspring, and protection (GS V, p.209). Spiritual drives serve the survival of social relationships and structures, for instance the drives for power, property, community and friendship. Not biological survival in a physical environment, but social survival in a social environment is the immanent purpose of spiritual drives (GS V, pp.209-210). Therefore, human experience consists of a subjective and immanent purposive connection between representations, biological and spiritual drives, associated feelings, and intentions.

In animal life Dilthey recognizes an immanent and subjectively experienced purposefulness too, although mediated by biological drives only. In the philosophy of biology, purposefulness of organisms is problematic because purposes are thought to presuppose a conscious mind that formulates them. Dilthey also contends with this problem. He asks himself how the structure of animal psychic life can be purposive without presupposing intelligence (Krausser, 1968, p.134). In 1888 he solves this problem by means of what Krausser calls “the cunning of nature”. Instead of knowledge of what is useful or harmful for their survival, nature has given feelings of pleasure and pain to living beings (GS V, pp.207-208). With regard to feeding for instance, Dilthey says:

“... die Nahrungsaufnahme, welche Auswahl und Besitzergreifung fordert, vollzieht sich durch einen bewussten Trieb, welcher von den typischen Gefühlen des Hungers, des Nahrungsgenusses und der Sättigung begleitet und der Auswahl fähig ist. Die Natur hat hier eine bittere Strafe auf die schädliche Nahrungsenthaltung in einem heftigen Unlustgefühl gesetzt. Sie setzte eine Prämie auf die richtige Nahrungsaufnahme in Lustgefühlen. So hat sie Tiere und Menschen gezwungen, auch unter den schwierigsten Umständen nützliche Nahrung zu wählen und Besitz von ihr zu ergreifen.” (GS V, p.209).⁷

Let us take the example of feeding to explain the cunning of nature. If humans and animals were to eat everything that came along their way, they would not live for long because many edible plants and animals are not good for their survival (for example, if they contain toxic substances). One can imagine that humans and animals have knowledge of which food is useful or harmful for them so that they can choose the right food. However, this would

⁶ Dilthey himself calls biological drives “physical”. Since these drives are directed at survival, I prefer to call them “biological drives”.

⁷ ... food intake, which requires choice and appropriation, occurs through a conscious drive which is associated with particular feelings of hunger, joy of feeding and satisfaction, and which is capable of choice. Nature has imposed a bitter punishment on the harmful abstinence of food through an intense feeling of displeasure. She put a premium on useful food intake through feelings of pleasure. So she has urged animals and humans to choose and take useful food, even under the most difficult circumstances.

require that they be virtually all-knowing. Dilthey states that nature has solved this problem by giving feelings of pleasure and displeasure to living beings, which replace this knowledge. However, bodily feelings alone cannot do this job, Dilthey continues. The taste of food does not tell us anything about its possible harm. In humans and animals who are able to learn, mental (*geistige*) feelings of future pain or pleasure take over the purposefulness of bodily feelings. But, we all know that even the prospect of probably becoming ill in the future does not stop some of us from eating unhealthy food. Now the cunning of nature shows up, namely the biological feeding drive and associated feelings that are stronger than other considerations to eat certain food (GS V, pp.208-209). *Thus, not intelligence or knowledge of the survival value of food, but the force of biological drives and associated feelings form the basis of the purposefulness of experiences.*

In the above quoted passage, Dilthey writes about animals as well as humans. With regard to eating by humans, we know that this is not always purposive in the sense of functional for their survival. Humans do not always dislike unhealthy food. They sometimes eat it despite the prospect of probably becoming ill from it. Regarding humans, the biological drives and associated feelings seemingly are not always that strong. In an explanation of animal experiences, however, the question of whether or not biological drives are stronger than other considerations is not relevant, because animal experiences are only mediated by biological drives and associated feelings. Whether or not Dilthey's cunning of nature is true regarding humans, in the case of animals the cunning of nature seems to be that a good or bad taste is a sign for the survival of the animal. *By means of feelings, nature has put a punishment or reward on animal behaviour that is dysfunctional or functional for their survival.*

This description and analysis of animal experiences looks very similar to Wiepkema and Toates' theory of animal emotions as discussed in chapter II. What Krausser calls "the cunning of nature" is similar to the evolutionary explanation of animal emotions as given by many ethologists, including Wiepkema and Toates. Many ethologists conceive of animal emotions as evolutionary adaptations because of their influence on the animals' survival. Emotions influence the animals' survival by means of their influence on animal behaviour. According to the emotion theory of Wiepkema and Toates, an increase in the difference between the *Istwert* and *Sollwert* is the cause of a negative emotion. This emotion stops the ongoing form of behaviour and motivates another form (see chapter II.1). The feeling of hunger is biologically functional because it stops whatever the ongoing form of behaviour is and motivates the behaviour of searching for food. Similarly, feelings of displeasure or pain when eating toxic foods have developed evolutionarily. In this way Dilthey's cunning of nature, namely that animal emotions are signs of future survival, is explained scientifically. Like Dilthey, Wiepkema and Toates too see a connection between representations, feelings and intentions. They conceive of emotions as evaluators of comparisons between *Sollwerte* and *Istwerte* (Dilthey: of representations) and as controllers of motivations (Dilthey: origins of intentions) (see chapter II.1). In the theory of Wiepkema and Toates this connection is a

causal as well as a purposive one. The connection between comparisons of *Sollwerte* and *Istwerte*, emotions and motivations is a causally functioning feedback mechanism of a purposive system. Wiepkema and Toates also see this purposefulness as immanent, because *Sollwerte* are set genetically, ontogenetically, or via learning processes - in any case not imposed (see chapter II.1). Thus, it seems that there is no difference between a cybernetic, natural-scientific explanation of animal experiences and Dilthey's description and analysis of them.

However, there is one difference between cybernetic explanations of animal emotions and animal experiences as described and analyzed by Dilthey, namely their subjective purposive character. Cybernetic explanations of animal emotions, such as that given by Wiepkema and Toates, indicate nothing about the subjective aspects of emotions. As we saw in chapter II.2, Wiepkema and Toates assume that emotions are the same in animals as in humans. Dilthey, however, claims to describe lived (i.e., subjective) experiences of animals: "Zweckmäßigkeit ist gar kein objektiver Naturbegriff, sondern bezeichnet nur die in Trieb, Lust und Schmerz erfahrene Art des Lebenszusammenhanges in einen tierischen oder menschlichen Wesen." (GS V, p.210).⁸ The subjectively experienced purposefulness is primary, he says. Biologists have transposed this subjective immanent purposefulness into an objective purposefulness (GS V, p.207).⁹ *The question is, of course, whether Dilthey's claim that he describes the subjective aspect of animal experiences is legitimate or is also an assumption based on the subjective character of our own human experiences.* Dilthey's method for understanding humans and animals gives an answer to this question.

Understanding the experiences of other humans and animals

In Dilthey's early writings, understanding the experiences of others means understanding individual psychic lives. Not only the components of experiences (for instance, a bad taste of food) but also the various experiences of an individual are subjectively and purposively connected. A bad taste and the avoidance of a particular food imply that one eats some other food, which, in turn, implies new experiences and new food habits, and the whole process starts again. The psychic life of an individual person is a particular case (individuation) of such a general structure. The *Geisteswissenschaften* are directed at understanding individual persons (GS V, pp.228-236). Therefore, biographies and autobiographies are important within Dilthey's hermeneutical sciences.

We understand the experiences of others by reliving (*Nacherleben*) their experiences, Dilthey says. To relive the experiences of others is to reproduce or imagine them. *Dilthey calls this process of understanding "transposition": understanding the experiences of others*

⁸ Purposiveness is not an objective concept of nature at all but only refers to the kind of connection of life in an animal or human being which is experienced through drives, pleasures and pain.

⁹ Krausser, however, says that Dilthey has derived the subjective purposiveness of psychic lives from the biological concept of purposiveness (Krausser, 1968).

as if these were our own. Reliving the experiences of others consists of placing the assumed revealed meaning of the perceived expressions in the same general structure as that of our own experiences. That which we cannot understand in this way remains strange to us. Thus, understanding the experiences of others presupposes a common general structure. This presupposition is plausible because of a common organic structure and because of the fact that we actually understand experiences of others (GS V, pp.198-199 and pp.211-212). In the following passage, Dilthey uses our factual understanding of other humans as an argument for the plausibility of a common general structure of human experiences: “Es spricht sehr für die große innere Verwandtschaft alles menschlichen Seelenlebens unter sich, daß ein Verständnis fremden menschlichen Seelenlebens dem Forscher, welcher gewohnt ist, um sich zu blicken und die Welt kennt, durchweg möglich ist.” (GS V, p.199).¹⁰

A common organic structure as argument becomes clear in his view on understanding animals. *In principle, the process of understanding animal experiences is the same as that of understanding the experiences of other humans. In understanding animal experiences as if they were our own, we assume that we share the general structure of experiences within which we place the assumed revealed meaning of the perceived animal expressions.* With regard to vertebrate animals, the supposed shared structure of experiences is made plausible by their similar organic structure as well as by our factual understanding of them: “Unser Verständnis der Wirbeltiere, welche dieselbe organische Grundstruktur besitzen, ist natürlich das verhältnismäßig beste, welches wir vom tierischen Leben besitzen; zumal für das Studium der Triebe und Affektzustände erweist es sich der Psychologie sehr nützlich.” (GS V, p.199).¹¹ With regard to ants and bees, by contrast, Dilthey says:

“... so erschwert uns schon die von der unsrigen außerordentlich verschiedene Organisation derselben die Deutung ihrer physischen Lebensäußerungen ungemein; sicher entspricht aber auch dieser ein für uns höchst fremdartiges Innenleben. Hier gehen uns also alle Mittel ab, in ein großes seelisches Reich einzudringen, das ist für uns eine ganz fremde Welt....” (GS V, p.199).¹²

The possibility or impossibility of understanding animals seems to depend on the presence of an organic structure that is similar to that of our own. Therefore, we seem to be able to

¹⁰ A compelling argument for a strong inner mutual affinity of all human psychic lives is that the investigator who is used to looking around and who knows the world as a rule is able to understand strange human psychic life.

¹¹ Our understanding of vertebrate animals, who possess the same organic structure, is of course relatively the best we can know of animal life; in psychology it proves very useful especially for the study of drives and affections.

¹² ... their organization which differs extremely from ours makes it extraordinarily difficult for us to interpret their bodily expressions; undoubtedly these expressions correspond with an inner life that is very strange to us. Here all possibilities to enter a large psychic domain therefore fail us; this is a totally strange world for us....

understand vertebrate animals and unable to understand ants and bees. However, this is an incorrect conclusion from the foregoing quotes. It passes over Dilthey's second argument that makes plausible a common structure of experiences, namely our factual understanding of animals. This can be seen by taking a closer look at Dilthey's view on the argument from analogy.

The argument from analogy

Dilthey's account of the process of understanding animal experiences has a great deal in common with the argument from analogy that ethologists use in order to say that animals have experiences. Dilthey also refers to an organic structure of animals that is similar to that of humans (see above). As Toates and Wiepkema refer to homologous behavioural mechanisms of humans and animals, Dilthey refers to the phylogenetic kinship between humans and animals (GS V, p.211-212). Although Dilthey uses the term "analogy" repeatedly with regard to understanding experiences of others, he says that the meaning of this term should be distinguished from its meaning in the argument from analogy as used by ethologists and many laypeople. In the latter use one reasons from homologous behavioural mechanisms to assumed homologous emotional mechanisms and so to animal experiences that are similar to human experiences. Dilthey, by contrast, does not derive a similar structure of experience from a similar organic structure. A similar organic structure makes it possible to see bodily expressions as expressions of experiences of the same structure as that of our own experiences. As previously quoted, this possibility is confirmed by our factual understanding of other humans and some animals. Therefore, he says that understanding other humans and animals is not the conclusion of a logical reasoning; it is the result of a spiritual (or psychic) process, namely the process of reliving their experiences. When Dilthey writes about the equivalence between the process of reliving experiences and the argument from analogy, he means that the latter is a logical formulation of the psychic process of understanding other humans and animals (GS V, pp.110-111 and pp.198-199). *In short, Dilthey does not see understanding animal experiences as justified by the argument from analogy but the other way around: the argument from analogy has to be justified by our factual understanding of animal experiences.*

The limits to understanding animals

Dilthey poses two limits to our understanding of animals, namely a limit to the kind of animals we can understand, and a limit to the kind of animal experiences we can understand. Regarding the first limit, we just saw that Dilthey says that he is helpless when trying to understand insects for instance. Their totally different organic structure makes it hard for us to recognize their behaviour as an expression of experiences like our own. If insects should have a psychic life, then it will appear totally incomprehensible to us. In the case of vertebrate animals, it is much easier to relive their behavioural and bodily expressions as expressions of experiences like our own. As I have explained, a common organic structure

is not decisive for understanding animals; decisive is whether we are able to interpret behavioural and bodily expressions as experiences. Because the question pertaining to which animals we are able to understand is not a biological question but a question of our ability to understand them, Dilthey says: "Endlich haben wir auch keine Hilfsmittel festzustellen, wo seelisches Leben endige und organisierte Materie ohne ein solches bestehe." (GS V, p.199).¹³

With regard to the animal experiences that we can understand, their specific structure is important. We saw that Dilthey asserts that the psychic life of animals is mediated by only biological drives and feelings of pleasure and pain, while the psychic life of humans also includes spiritual drives. "The cunning of nature" relates feelings of pleasure and pain in animals are related to an increase or reduction of their chances to survive. *This should imply that we can only understand animal behavioural and bodily expressions as expressions of pleasure and pain, if these expressions also increase or reduce the animals' chances of survival.*¹⁴ Whether or not Dilthey would have agreed with this conclusion, it does not mean that we may derive animal experiences of pleasure and pain from the biological functionality of their behaviour. Understanding animals remains a process of transposition, in this case seeing animal behaviour as an expression of experiences like our own.

The limit regarding the kind of animal experiences we are able to understand raises two questions. The first question is why animal experiences only contain feelings of pleasure and pain connected with their biological drives and not with spiritual drives as well. *Dilthey's answer to this question is that animals do not have spiritual drives to maintain a society or culture, since animals are not able to understand each other.* To understand each other is a requirement for speaking about societies and cultures:

"Denn eben, daß eine wirkliche Transposition stattfinden kann, daß sonach Verwandtschaft, Allgemeingültigkeit des Denkens, usw., kurz was man Identität der Vernunft in der spekulativen Schule

¹³ Ultimately we do not have the means to state where psychic life ends and organized matter without it starts.

¹⁴ Concerning the biological functionality of animal behaviour, it has to be taken into account that, firstly, Dilthey could not know the later developments in evolutionary biology about kin and group selection. According to these specific evolutionary theories, functionality is not only related to the chance of survival of an individual organism, but can also be related to the chance of survival of families and other groups of organisms. It is unknown whether, had he known these theories, Dilthey would still have said that feelings of pleasure and pain in animals are related to their individual chance of survival. Secondly, it has to be taken into account that Dilthey only wrote about animals in their natural environment, and not about domestic animals. In artificial environments, in which humans take responsibility for the survival of animals, animals may perform types of behaviour which are functional in their natural environment but dysfunctional in their artificial environment, and vice versa (see the example of escaping behaviour of caged migratory birds in chapter III.1). In the last chapter of this book about the welfare of domestic animals, more will be said about the relation between the functionality of animal behaviour and animal experiences.

nannte, hier eine gesellschaftliche-geschichtliche Welt bilden, unterscheidet doch erst diese geistige Vorgänge von dem inneren Verlauf tierischen Seelenlebens." (GS V, p.250).¹⁵

Many ethologists, philosophers of animals and laypeople will protest against this statement. They will say that many animals clearly are able to understand each other and so shape a society as well, which they maintain by social relationships of dominancy, friendship, and soon. (See, for example, the well-known books by Goodall, De Waal and Cheney & Seyfarth.) Most ethological studies that support this protest demonstrate that animals are able to learn to react to perceptions of each other's behaviour in former encounters. However, in order to speak of reciprocal understanding in the sense of Dilthey, they should demonstrate that this animal understanding is based on reliving each other's experiences. This is the difference between speaking of a common society and culture in the sense of Dilthey and social behaviour of animals in the usual ethological sense. Summarized in more modern terms, one should demonstrate that these animals do not communicate with each other by means of signs but that they reciprocally understand each other.

The second question is how humans, whose experiences are also mediated by spiritual drives, can understand animal experiences that include only biological drives to survive. In the example of feeding we saw that Dilthey says that in humans the biological drive for feeding is stronger than some spiritual drive that might restrain them from feeding. But we know that human feeding behaviour is not always functional for their survival. Some humans eat food that is not good for their health; others go on a hunger strike. Human eating is not only the expression of a biological drive but is also a social and cultural expression. Our satisfaction while eating is partly bodily, partly cultural. This issue becomes more urgent in Dilthey's late writings, in which he emphasizes the cultural and historical meaning of understandable experiences.

Even if these last two questions remain unanswered, the early Dilthey provides me with a philosophical conceptualization of animal experiences, and a method to understand them. However, the richness of Dilthey's early writings regarding understanding animal experiences contrasts with what he says about the same subject in his later published writings, namely almost nothing. Thus, the following section can be much shorter. All that needs to be explained is why the later Dilthey hardly says anything about understanding animal experiences.

¹⁵ Precisely the fact that a real transposition can happen, that thus kinship, common legitimation of thoughts, etcetera - in short what in speculative philosophy is called identity of reason - shape a social-historical world, distinguishes spiritual processes from the inner process of animal psychic life.

3. The cultural and historical horizon of experiences

In Dilthey's early writings, human and animal psychic life consists of subjective experiences, which are a connection of representations, drives, feelings, and intentions. In his later writings, subjective experiences are just one component in the connection of life (*Lebenszusammenhang*), which further consists of expressions and understanding. As said in a previous section, this is not a matter of a rupture but of emphasis. In Dilthey's later writings, descriptive and analytical psychology is still part of the philosophical hermeneutical foundation of the *Geisteswissenschaften*.

The connection of life

In Dilthey's early writings, experiences are unobservable but expressed in behaviour, statements, artefacts, etc. We understand these expressions as expressions of experiences. So, there is already a connection between experiences, expressions and understanding in Dilthey's early writings. *The later Dilthey broadens this connection into a cultural and historical connection. Now culture and history constitute the connection between experiences, expressions and understanding.* (This is why the later Dilthey is called "hermeneutical", and the early Dilthey is called "psychologistic".) This cultural and historical aspect can readily be seen if we consider the understanding of a book. When trying to understand a book, we do not relive the experiences the author had when he wrote the book. We see most books as having a meaning that is independent of the psyche of the author. We interpret what we read within our own context and within the assumed cultural and historical context of the book. Dilthey calls this process of understanding "the broadening of our cultural and historical horizon". Understanding a book can be evaluated according to common requirements. Because of this common background knowledge, understanding a book can be quite objective in the sense of intersubjective (GS VII, pp.205-206; De Mul, 1993, pp.320-340). For instance, it is commonly seen as wrong to understand the concept of nature in Aristotle as referring to causal and mechanic states or processes.

This cultural and historical character of experiences, expressions and understanding does not contradict Dilthey's earlier view. In his early writings, Dilthey does not deny that individual experiences have a cultural and historical character. His description and analysis of experiences does not preclude that they are cultural and historical. Dilthey later only emphasizes the understanding of texts and artefacts, the common, cultural and historical meaning of which is more important than the meaning their producers attributed to them. The question is whether the same holds true if we consider another type of expression, namely emotional expression.

Understanding emotional expression

Contrary to understanding a book, understanding emotional expressions such as those of pain or joy is mostly directed at understanding the subjective experiences of the person involved.

Trying to understand a person's emotional expressions is primarily trying to understand a person, not the cultural and historical meaning of his expressions. The later Dilthey will agree with this view; in his later writings he still speaks about understanding emotional expressions by reliving them (GS VII, pp.214-216). For the very reason that understanding emotional expression aims at understanding the experiences of a person, this understanding can be richer and broader than understanding books or other artefacts, he says. But because the role of common background knowledge is smaller, understanding emotional expressions is less objective than understanding a book (GS VII, pp.206-211; De Mul, 1993, pp.320-340). This less objective way of understanding is what the early Dilthey called reliving the experiences of another.

Nevertheless, the later Dilthey says that even the connection between emotional experiences, their expressions and understanding is of a cultural and historical character. He sees individual persons as individuations of what he calls "the objective mind" (GS VII, p.195). In the previous section, I already mentioned the concept of individuation. In Dilthey's early writings, 'individuation' means the differentiation of the general structure of psychic lives. All individual persons and vertebrate animals share this structure. Particular experiences and individuals differ in the content of this structure and the emphasis on specific components. Later, Dilthey broadens the connection of life from psychic life into cultural and historical life. Humans share a cultural and historical life that is laid down in language, books, works of art, tools, etc. These make up the objective mind. Now, individual persons are differentiations of a particular and common cultural and historical way of life. The understandable meanings of particular expressions are differentiations of this common way of life (GS VII, pp.141-145). Even the meanings of emotional experiences and expressions such as those of pain and pleasure are cultural and historical. Personal greetings, for instance, also have a cultural form and meaning.

I would say that, by broadening the connection between experiences, expressions and understanding, Dilthey makes the foundation of the Geisteswissenschaften a two-stage rocket: the general structure of psychic lives differentiates itself always into cultural and historical ways of life, of which in turn particular artefacts and persons are differentiations. The difference between understanding artefacts and understanding emotional expressions is a matter of emphasis either on the common or on the particular aspect of their meaning. Both the meaning of artefacts and the meaning of emotional expressions have a historically cultural as well as a personal, producer's aspect. Concerning artefacts, the historically cultural aspect is the most important. If, for instance, an archaeologist tries to understand the meaning of a found tool, he does not try to understand the personal intention of the producer. He compares the form of the tool with that of other, known tools. If an archaeologist does not succeed in understanding a tool in this way, he can try to imagine what the mostly unknown producer could have intended it for. In emotional expressions the personal aspect is the most important, but there are also cultural and historical aspects. If we try to understand the meaning of a person's greeting, we try to understand the personal touch of it. Also, the

method of reliving another person's emotional experiences does not differ fundamentally from gaining a hermeneutic understanding of artefacts. In both methods one tries to understand particular expressions as differentiations, be they more or less personal, of a common culture and history.

Animals lost

As said in the previous section, Dilthey holds that animals are incapable of transposition. Because of this inability, he does not mention understanding animal experiences any more in his later writings. Reciprocal understanding, based on transposition, is the basis of common cultures and histories, embodied in objects such as books, tools, works of art, and also gestures. Thanks to a common culture and history, particular expressions are understandable as differentiations of it. This foundation of the hermeneutical sciences is specific for humans (GS VII, pp.85-86). Therefore, it is not astonishing that Dilthey does not mention understanding animal experiences any more in his later writings.

4. Animals regained

Although one can agree with Dilthey about the cultural and historical character of human experiences, expressions and understanding, I think this is no reason to exclude animal experiences. In his early writings, Dilthey mentions our factual understanding of animal experiences and elaborates a philosophy of the structure of animal experiences. *Our factual understanding of animal experiences has disappeared in his later writings.* Nevertheless, he still says that the distinction between physical and psychic phenomena is based on our different experiences (GS VII, pp.80-81). I assume that even the later Dilthey, like everybody else in daily life, still experiences the scream of a beaten dog as an expression of pain. This experience would be the basis of saying that these animals are psychic, experiencing beings. I admit that it is hard to conceptualize animal experiences in light of the philosophy of the later Dilthey. But this is no reason to deny them. Perhaps this philosophy is not articulated enough for comprehending what Dilthey calls the spiritual fact that we humans understand some animals as expressing experiences.

Another reason why I do not want to exclude animal experiences is the fact that the gap between humans and nature becomes wider. By viewing animals in the same way as micro-organisms or even non-living things, the dualism of experiencing humans and non-experiencing non-human nature is hard to comprehend. Although the early Dilthey only could explain animal experiences by invoking what is called "the cunning of nature", he sees animals as between non-experiencing beings and humans. *In his later writings, the gap between cultural and historical human experiences and causally and functionally explainable non-human nature is much more difficult to bridge - philosophically and scientifically.*

These comments on Dilthey's later writings remind us of the early Dilthey's thoughts

about animals. However, Dilthey's earlier thinking about understanding animal experiences also raises some problems, to which I will also return in the following chapters. The first is the aforementioned problem of the conceptualization of animal experiences. The only kinds of experiences we know are our own, culturally and historically mediated, experiences. As animals are not cultural and historical beings, the question is how to conceptualize these non-cultural and non-historical animal experiences. *Ethologists and philosophers of animals call this problem "the problem of anthropomorphism": how to prevent ourselves from ascribing typically human experiences to animals?*

Every answer to this question raises the second problem of the non-reciprocity of understanding animal experiences. As Dilthey says in his early writings, animals are incapable of transposition. They are unable to relive our human experiences like their own, also because our human experiences are always cultural and historical. Humans and animals do not share a common background knowledge that would enable us to see human understanding of animal experiences as intersubjective understanding. *Hermeneutical scientists would say that between humans and animals a double hermeneutics is missing, that our understanding of animal experiences is always a matter of one-way communication.*

The third and last problem that rises is that of the relationship between an understanding view and biological views on animal experiences, particularly such as those held by Wiepkema and Toates. This problem concerns the purposefulness of animal-experiences. According to early Dilthey, we project the subjective purposefulness of our own inner experiences onto non-human nature. Biologists objectify this subjective purposefulness into functionality in the light of the organism's survival, he says. *This would imply that the projection of our own inner experiences onto animals is primary to the objectivation of animal experiences as elements of a biologically functional system. Hence, Dilthey puts the burden of proof of animal experiences on hermeneutic understanding of them.*

CHAPTER V

GADAMER: "BEING THAT CAN BE UNDERSTOOD IS LANGUAGE"

This statement of Hans-Georg Gadamer (1900) is a criticism on the position taken by his teacher Martin Heidegger concerning the ontological foundation of human being (WM, p.478).¹ Heidegger held that time and temporality (i.e., being bound to past, present and future) are the necessary presuppositions of the human way of being. Gadamer, by contrast, asserts that this role accrues to language. In his view, language is the foundation of human understanding and of the human way of being in the world.

In his main book *Wahrheit und Methode* [Truth and Method] (1960), Gadamer rejects the monopoly of the scientific concept of truth that states that true knowledge is methodically demonstrable knowledge. Gadamer holds that this concept of truth is inadequate for our understanding of the meaning of behaviour, texts, artefacts, and also of non-human nature. Unlike Dilthey, Gadamer does not develop a methodical basis for the *Geisteswissenschaften*. He elaborates systematically the non-methodical truth of understanding on which every form of knowledge, even scientific knowledge, is based (Weinsheimer, 1985, pp.33-36).

In this chapter, I will first summarize Gadamer's concept of experience in relation to language and understanding as expounded in *Wahrheit und Methode*. I will further show that, in his book, Gadamer seems to exclude animals as experiencing beings because he considers them not open to the world (V.1.). In a book of essays about health and sickness, however, Gadamer relaxes his philosophical view regarding the open character of experience. In that book, he emphasizes that human experiences of health and sickness are tied to the body, and he argues that this state belongs to the foundation of the human way of being (V.2). This opens up the possibility of ascribing bodily-bound experiences to animals (V.3).

1. Understanding, experience, and language

Wahrheit und Methode provides us with a philosophy of human understanding and experience. The first half of the book is a philosophical analysis of aesthetic and historical understanding and experience. The second half contains Gadamer's theory about the hermeneutical character of human understanding and experience in general.

¹ References to *Wahrheit und Methode* will be given by WM, followed by the page(s). Regarding the used edition, see the reference list at the end of this book.

Limitation and openness of understanding and experiences

Gadamer conceives of understanding and experiences as one and the same. Experiencing a work of art or landscape is at the same time understanding them in a certain way, for instance as repulsive or beautiful. Conversely, having understood a book means having experienced it in a particular way. In his discussion of Kant's philosophical aesthetics, Gadamer criticizes the formal or empty character of Kant's notion of aesthetic experience (WM, chapter I.2 and 3). Gadamer asserts that aesthetic experiences, and experiences in general, always are meaningful experiences of the world, because we always experience the world in a particular way. Therefore, experiences are inherently limited. We always experience the world in one way or another, never in more ways at the same time. However, experiences also are open-ended; new experiences can deny them. For example, realizing that Duchamp's urinal is a piece of art changes the prior experience of it as just an urinal. *Actually, only new negative experiences are real experiences, Gadamer says, because they show us the limitation as well as the openness of experiences* (WM, pp.357-359).

Language as the ontological foundation of understanding and experience

The main thesis of Gadamer's theory is that language is the ontological foundation of experience. By virtue of their linguistic character, experiences of the world are limited as well as open, he states. One may be inclined to think that the relation between experiences and language is the other way around, that we first have non-linguistic experiences, which we subsequently put onto words. This implies a view on language as a tool, as if we have a bag full of words, which we can glue on our experiences. Gadamer opposes this view on language. Language is not a means with which we can express or articulate experiences, but the medium of experiences, he says. Like fish in water, humans are living in a "*Sprachwelt*" (world of speech) (WM, p.450).

That language is the foundation of experience does not mean that only linguistically articulated experiences are experiences, or that only adult, speaking people are able to experience the world. It means that it is possible to articulate experiences of the world in language, although this might be factually impossible under some circumstances. For example, sometimes people cannot find the right words, cannot speak yet, or have lost their capacity of speech. Despite such factual impossibilities, their experiences are still limited as well as open. Hence, they still refer to language. *This is what Gadamer means by saying that language forms the ontological basis of experiences. It is the logically, not factually,*

*necessary presupposition of experience.*² Experience presupposes linguistic being rather than the factual capacity to speak or express experiences in words.

Language as the nature of the matter

The appeal to “the nature of the matter” normally occurs when it is held that a given form of understanding does not do justice to the character of things in the world. This phrase questions the relation between our understanding of things and the things themselves. One of the reasons to bring up this phrase is that, by means of language, humans understand the world in a conventional or arbitrary way, or in a way that subjects matters and things to language. Therefore, our understanding is never complete. The phrase “the nature of the matter” expresses this limitation of our human understanding.³

Gadamer has explained his view on this question in his essay *Die Natur der Sache und die Sprache der Dinge* [The nature of the matter and the language of things] (1960). Here Gadamer says that only language provides a solution to the problem of the gap between the world and our understanding of it (Gadamer, 1960/1986, p.71). He disagrees with the limitation of our linguistic understanding as usually brought forward with the phrase “the nature of the matter”. The view on language as conventional, arbitrary and subjecting presupposes a distinction between language and things; it considers language a means to understand things. As said, Gadamer does not see language as a tool for understanding. Language always has matters or things as its content, he says. Only artificial languages, for instance computer languages, have no content, and for this reason they can be used as tools. Gadamer goes one step further when he says that matters and things are not only the content of language, but that they even need language to appear to us. Therefore, he says, perhaps ‘language’ means less the language of humans than the language of things (Gadamer, 1986/1990, pp.72-73). *That matters and things need language to appear to us, is the same as saying that they need language to be understood and experienced by us. This is similar to Gadamer’s statement that language is the ontological foundation of understanding and experiences.*

Gadamer agrees with the usual view that a linguistic understanding can never be complete because of the limitation of language. To say that the aforementioned urinal is just an urinal is excluding it from the world of art. However, language is not only limited but also open, unlimited, Gadamer says. It is still possible to see the urinal as a work of art. We

² I fully agree with people who say that one can as well say that the limitation and openness of language is ontologically based on the limitation and openness of experience. The philosophers who will be discussed in the following chapters are - indeed - turning Gadamer’s reasoning upside down. And, in the next section we will see that Gadamer, in some sense, does the same, namely: by saying that a linguistically based openness to the world is based on the (hidden) experience of health.

³ Also with regard to animals, the nature of animals sometimes is put forward to refer to our limited, philosophical and scientific knowledge of animals (Zwart, 1995).

are able to understand one and the same, undetermined matter in infinitely different ways, although not at the same moment. Language does not only subject the world, but also does justice to the undetermined world. In this sense, language provides a solution to the problem of the gap between the undetermined world and our limited understanding of it. *It is this limited as well as open character of language that is the foundation of the limited as well as open character of our understanding and experiences of the world.*

Animals as understanding and experiencing

Like everything else in the world, animals can be the subject matter of human experiences and understanding. We can understand chickens as living beings or as moving egg producers. In this sense, humans and human artefacts are not the only subject matter for an understanding approach. This book, however, concerns animals as a special subject matter of understanding, namely as expressing experiences.

In daily life most people experience animals as beings who can feel well or badly, who can have pain and pleasure. Gadamer is one of those people, as testified by his positive reference to Aristotle's view on animals: "Die Tiere haben die Möglichkeit, sich miteinander zu verständigen, indem sie einander anzeigen, was ihre Lust erregt, so daß sie es suchen, und was ihnen weh tut, so daß sie es fliehen." (Gadamer, 1966/1960, p.146).⁴ Animal pleasure and pain imply a capacity to experience the world. However, such an animal capacity contradicts Gadamer's more extensive statements about the way of being of animals in *Wahrheit und Methode*. Gadamer himself stated the difference between the animal and human way of being in the world very clearly:

"Erhebung über die Umwelt hat hier von vornherein einen menschlichen und das heißt einen sprachlichen Sinn. Tiere können ihre Umwelt verlassen und die ganze Erde durchwandern, ohne daß sie damit ihre Umweltgebundenheit sprengen. Erhebung über die Umwelt dagegen ist für den Menschen *Erhebung zur Welt* und bedeutet nicht ein Verlassen der Umwelt, sondern eine andere Stellung zu ihr, ein freies, distanzierendes Verhalten, dessen Vollzug jeweils ein sprachlicher ist." (WM, p.448).⁵

Immediately he adds that only humans are living in a world of language (*Sprachwelt*); the animal *Umwelt* is not a world of language:

⁴ Animals are able to communicate with each other because they display to each other what arouses their pleasure, so that they can look for it, and what is painful, so that they can flee from it.

⁵ To rise above the habitat has from the outset a human, ie a linguistic significance. Animals can leave their habitat and move over the whole earth without severing their environmental dependence. For man, however, to rise above the habitat means to rise to the 'world' itself, to true environment. This does not mean that he leaves his habitat, but that he has another attitude towards it, a free, distanced attitude, which is always realised in language (p.403). (Translations of quotations from *Wahrheit und Methode* are derived from the English translation, see the reference list at the end of this book.)

“Eine Sprache der Tiere gibt es nur *per aequivocationem*. Denn Sprache ist eine in ihren Gebrauch freie und variable Möglichkeit des Menschen. Die Verständigungsmöglichkeiten zwischen Tieren kennen eine solche Variabilität nicht. Das bedeutet ontologisch, daß sie sich zwar miteinander verständigen, aber nicht über Sachverhalte als solche verständigen deren Inbegriff die Welt ist.” (WM, pp.448-449).^{6,7}

A possible objection to the stated invariability of animal behaviour might be that almost all animals do, in fact, closely attune their behaviour to the current properties of the environment. Many animals are able to learn to adjust themselves to a changing environment. The outcome of these learning processes is not programmed beforehand, so the conclusion might be that animal behaviour is variable too.

In one of the passages just quoted, Gadamer says that animals can dwell all over the earth, and - I would add - can live in different environments. In this sense Gadamer admits that animal behaviour is variable. However, he does not have this type of variability in mind. For him ‘variability’ means the possibility to take up different positions to one and the same, undetermined environment. Animals just behave - although unpredictably - in one way or another. Their variability is a biologically explainable phenomenon and is not based on a capacity to take up different attitudes towards the environment. The latter capacity is restricted to humans, thanks to their linguistic way of being. *The conclusion seems to be that, because animals are not linguistic, they are not open to the world. Because of this lack of openness, animals are not able to experience the world.*

2. Bodily-bound experiences

In his book *Über die Verborgenheit der Gesundheit* (1993) (translated as *The enigma of health*)⁸, Gadamer discusses the limits of human medicine. His main statement is that we cannot conceive of human medicine as a scientifically based technique because perfect human health is not an end that we can realize in a technical way. Health is an experience which

⁶ Animals have a language only *per aequivocationem*, for language is a human possibility that is free and variable in its use. Animals do not have this variability when making themselves understood to one another. This means, ontologically, that they make themselves understood, but not about objective situations, the epitome of which is the world (p.403).

⁷ These statements can be seen as a criticism of ethologists and philosophers on animals who say that animal sounds, smells, and behaviours should also be conceived of as language. See, for instance, Griffin about the dance of honeybees as their language (Griffin, 1976/1981, pp.42-47). Ironically, the argument with which Griffin defends that honeybees are linguistic, namely constant relations between the place of the food, the form of the dance of the honeybees and the reacting behaviour of the other bees, is the same as Gadamer’s argument for saying that animals are not linguistic.

⁸ I consider the English translation of the title inappropriate. The original, German title indicates the very character of health as analyzed by Gadamer, namely that health, contrary to sickness, is normally unnoticed, hidden (*verborgen*).

cannot be objectified, Gadamer says.⁹ In some essays, Gadamer analyzes human experiences of health and sickness. Searching for a philosophical concept for animal experience, we must pay attention to this analysis because it restricts the openness of experiences as previously stated in *Wahrheit und Methode*.

The reflective moment of health and sickness experiences

In most modern philosophies, 'reflection' is considered taking a distance from and freely turning towards oneself, one's body or the external world. (See also the quote in the foregoing section, in which Gadamer says that the human relation to the world is a free and distanced one.) Gadamer questions this model of reflection in *Über die Verborgenheit der Gesundheit*. He illustrates his own view with the reflective moment of experiences of health and sickness.

According to the usual view on reflection, insight into health or sickness is seen as knowledge of the state of one's body, which can be true or false. This view corresponds with the scientific medical view on health and sickness. This view does not correspond with the reflective moment of human experiences of health and sickness, Gadamer asserts. The awareness of being ill is not free and distanced knowledge about one's body, but is always bound to one's life situation. As we shall see, experiences of health and sickness are not bound because health and sickness concern bodily states and processes, but because they are bound to a bodily as well a personal life situation.

Gadamer's own analysis of health and sickness is the following. In a healthy condition, bodily life events consist of fluctuations around balances. Small disturbances are absorbed in a natural way. For example, small fluctuations of body temperature do not put a person out of balance. Normally we do not experience health. Therefore, the title of Gadamer's book: the hiddenness of health. Only after having been ill, for example, do we feel healthy again. Although health is ontologically primary, because it is the given state of being, sickness is methodically primary. Thanks to experiences of sickness, we realize that the healthy situation is normal (Gadamer, 1993, p.99). The reflective moment of experiences of sickness consists of an awareness of a disturbance that is not absorbed in a natural way, and of a tendency towards restoration of this disturbed balance. This awareness does not contain knowledge of which bodily balance exactly is disturbed. We just know something is wrong because of a disturbance of normal life events, sleeping badly for example. This disturbance clearly does not affect only one's body, but one's whole personal situation. While sleeping badly because of a disease, our daily rhythm of working is also disturbed. Gadamer says that the experience of sickness is a matter of not going along with normal bodily and personal life events (Gadamer, 1993, pp.73-76 and pp.105-108). In summary: "Deshalb stellt Krankheitseinsicht ein Lebensproblem dar, das die Gesamtperson betrifft, und keineswegs

⁹ It must be mentioned that Gadamer only writes about human health and sickness, not about animal health and sickness.

einen freien Akt der Intelligenz, die Distanz zu sich selber nimmt und sich auf sich selbst und die erfahrene Störung vergegenständlichend wendet." (Gadamer, 1993, p.78).¹⁰ Thus, health and sickness are not only bound to bodily balances, but to the balance of the whole person in his life situation. Experiences of sickness disturb this life situation, but not in a principally open way in accordance with the openness of language. Experiences of sickness are also bound because these are experiences of a disturbed normal situation. *The conclusion of this analysis of human experiences of health and sickness is that their reflective character is a bound, instead of a distanced and free one. They are always experiences within the context of a bodily and personal situation.*

A new model of reflection

The model of a bound human situation, and - therefore - of bound reflection, is not only a model of the bodily human situation, but also the fundamental model of the human situation in its totality. "Das scheint mir das Modell, nach dem alle Selbstreflexion, insbesondere auch die in der eigenen Krankheitseinsicht betätigte, gesehen werden muß." (Gadamer, 1993, p.77).¹¹ And: "Dieses Modell scheint mir geradezu das Urmodell unserer menschlichen leiblichen und wohl nicht nur leiblichen Daseinsweise zu sein." (Gadamer, 1993, p.105).¹² Here Gadamer says that not only experiences of health and sickness but all experiences are bound to a bodily and personal life situation. All experiences are tied to the bodily aspect of a life situation in the sense that humans, by virtue of their unexperienced healthy liveliness, are open to the world (Gadamer, 1993. pp.105-108 and pp.143-144). This openness (thanks to health) shows up when being sick. In sickness the only thing that matters is our body; we are less or not at all interested in other things. Experiences are tied to the personal aspect of a life situation in the sense that they fit into or disturb a normal life. Let me recall also Gadamer's concept of new experiences as real experiences: new experiences are disturbances of expectations within a situation. As in experiences of health and sickness, going along with life events is ontologically primary; disturbances are methodically primary. So, the whole human way of being is directed at going along with life events, and at restoring disturbances of it. *All experiences, and their reflectivity, are experiences within and bound to a life situation* (Gadamer, 1993, pp.75-76).

¹⁰ It is for this reason that awareness of ill-health represents a problem which affects someone's life as a whole and which concerns the whole person. Such awareness is by no means a free act of intelligence, the adoption of a critical distance and the objectification of oneself and the experiences disturbance (p.55). (Translations of quotations from *Über der Verborgenheit der Gesundheit* are derived from the English translation, see the reference list at the end of this book.)

¹¹ I consider this to be the model through which all self-reflection must be understood, especially that form of reflection which is involved in the awareness of one's own ill-health (p.54).

¹² This seems to me to be the fundamental model for our bodily, and not merely bodily, existence as human beings (p.78).

Gadamer's own conclusion concerning the concept of 'reflection' is that reflection does not presuppose free and distanced human beings, but the other way around. What we call free and distanced reflection remains tied to the entire life situation:

"Mann kann nicht Einsicht in das, was ist, als eine freie Möglichkeit des Menschen voraussetzen, in der sein eigentliches Wesen bestehe, und zu der er sich in überlegener Distanznahme jederzeit erheben könne, ohne in einen naiven Dogmatismus zu verfallen. Einsicht und Distanzmöglichkeit solcher Art bleiben vielmehr auf schwer beschreibbare Weise an die Person im ganzen ihrer Lebenssituation gebunden." (Gadamer, 1993, p.75).¹³

This view on tied, reflective experience weakens Gadamer's earlier view on their openness. Previously, as reported in the foregoing section, Gadamer presented experience as being totally open, as if humans were totally free concerning the way in which they experience the undetermined world. The concept of experiences as tied to a situation restricts this freedom. This restriction does not mean that the life situation prescribes the content of experiences. It means that the content of experiences is related to one's life situation, either in accordance with expectations, or as disturbances of them. Even the experience of a disturbance is always tied to a life situation in the sense that it is the experience of a disturbance of the normally balanced life situation. *This view on experiences as bound experiences questions their linguistic foundation. Either linguistic openness is not the ontological foundation of experiences, or language is not that open after all. In any case, this view weakens openness as the ontological foundation of experiences, which in Wahrheit und Methode was the reason to exclude animal experiences.*

3. Animal experiences revisited

In *Wahrheit und Methode*, Gadamer sees the inability of animals to have a free and distanced position towards their *Umwelt* as the reason for stating that animals do not have a world which they are able to experience in different ways. In *Über der Verborgenheit der Gesundheit*, however, he says that human experiences are not that free and distanced either because they remain tied to a life situation. *Apparently, to be bound is not an impediment for experiences.*

Animals are also bound to their body and environment. Their life is also a matter of balances concerning their body and environment. If, for instance, the environment changes,

¹³ If we are not to fall into a form of dogmatism, we cannot simply presuppose that insight into what exists is an open possibility for human beings, that this is an essential determining characteristic of their being, a stand-point of critical distance to which they can at all times raise themselves. In ways that are difficult to describe, the capacity to gain insight and to acquire critical distance remains bound up with the individual person in the totality of their life situation (p.53).

then animals also tend to restore disturbed balances. They do this either by adjusting themselves to a new environment or by adjusting a new environment to themselves. In this sense animal life is also a matter of going along with life events.

However, it is not allowed to turn Gadamer's way of reasoning upside down. Gadamer bases his statements about the foundation of the human way of being on an ontological way of reasoning. He starts with human experiences (of works of art and history, and of health and sickness), and asks himself what they presuppose in the logically necessary sense. In *Wahrheit und Methode* his conclusion is that human experience presupposes language and a linguistic way of being. In *Über die Verborgenheit der Gesundheit* he concludes that human experience presupposes going along with a life situation. *It would be incorrect to turn this ontological way of reasoning upside down by saying that animals are also experiencing beings because they are also bound to a life situation.* That it is incorrect to do this, shows up when we consider plants. Plants also are living within a life situation. Plants also tend to restore disturbed balances with their environment. Yet, most people would not say that plants are experiencing beings. We seem to make distinctions between different types of living in a life situation: some types imply experiences, others do not.

The life situation of humans and animals

In one of the previously quoted passages, Gadamer says that the medical-scientific, distancing view on human health and sickness remains bound to the person in his whole life situation "in a way that is hard to describe". Elsewhere he writes that health and sickness cannot be objectified, because they depend on many unsurveyable factors (Gadamer, 1993, p.57 and pp.61-63). It seems that animal ethology and animal ecology try to overcome this problem. They try to describe the many factors that contribute to the balance between animals and the environment in which they live. However, it is incorrect to see Gadamer's concept of a life situation, and the many factors involved, in this ethological and ecological way.

Unlike ethologists and ecologists, Gadamer does not write about humans as members of a biological species located within a certain environment, but about persons in a life situation. As we saw before, a person's life situation is not only a bodily but also a personal situation. From *Wahrheit und Methode* we know that human beings are living within a cultural and historical horizon. As regards health and sickness, this is clear. A discipline like medical anthropology shows that when and why people experience their situation as one of sickness differs in different cultures. Hence, the many factors on which a life situation depends are not mere natural or environmental factors. They also comprise social and cultural factors insofar as they constitute the meaning of the whole life situation for a person. What factors constitute the meaning of a life situation is not a matter of analyzing a given situation as is done in ethology and ecology. This depends on the situation as experienced by the persons involved. For example, for some teachers the harsh daily rhythm of giving lessons is more sickening than for others. A diagnosis made by, mostly, a family doctor starts by understanding the patients' situation. He asks for their problems, which are

intertwinings of bodily and life-problems. A doctor does not tacitly analyze the patients' situation and does not test for the presence of possible factors, but he asks his patients what matters to them. He does so in order to reach a view on the patient's situation, within which he has to look for and diagnose a disease in the medical sense. It is not on many unsurveyable factors that a medical view depends, but on the experienced and understood situation of the patient. This situation cannot be described in objectivating terms; it can only be understood and described in terms of personal, meaningful experiences. However, seeing experiences of health and sickness as personal and, therefore, historically cultural experiences does not totally solve the problem of describing these experiences. *Health and sickness also have a bodily aspect. It is this bodily aspect and its intertwining with the personal aspect of experiences of health and sickness that remains hard to describe.*

With regard to animal experiences, the same problem rises as with Dilthey. Gadamer also says that animals have no culture and history, because he considers culture the result of understanding, and history a matter of ongoing understanding. Animals are living in an *Umwelt* rather than a historical culture, he says. The question is whether the *Umwelt* of animals should be seen as a mere physical environment as ethologists and ecologists do, or whether this is a meaningfully experienced *Umwelt*. In the latter case, a further question is that to the character of animal experiences, if this is not cultural and historical. This question is partly similar to that concerning the bodily aspect of human experiences of health and sickness. It is hard to describe this in cultural and historical terms only, but neither can it be described in objectivating, physical terms only.

The two philosophers who will be discussed in the chapters to follow provide us with an answer to these questions. Merleau-Ponty has clarified the bodily aspect of human experiences; Plessner wrote about the animal body as the basis of experiences. Before discussing them, I will draw some conclusions concerning the views of the two discussed founding fathers of 20th Century hermeneutics on animals as expressing experiences.

INTERMEDIATE REFLECTIONS 2

In Intermediate Reflections 1, I cherished the hope that hermeneutics would provide me with a fruitful model for research into subjective animal experience because this philosophy conceptually and methodically holds onto experiences as subjective experiences. *Alas, the core of hermeneutics concerns human experiences, the conceptualization and understanding of which sometimes can but more often cannot cover animal experiences as well.* The main line of reasoning within philosophical hermeneutics seems to start with typically human experiences, take these as examples of experiences in general, and derive from them a philosophical concept of experience and method for understanding. This line of reasoning is explicitly present in Gadamer's *Wahrheit und Methode*. Gadamer starts his book with an analysis of aesthetic and historical experiences on which he bases his philosophy of experience and understanding. His conclusion, obtained by this line of reasoning, is that language is the ontological presupposition of experiences. Since Gadamer does not consider animals linguistic, he precludes animals as experiencing beings.

One can accuse Dilthey of the same kind of reasoning because he emphasizes the cultural-historical character of experiences, expressions and understanding.¹ This accusation is confirmed by the title of Dilthey's unfinished project: *Kritik der historischen Vernunft*. As Kant in his *Kritik der reinen Vernunft* developed an epistemological foundation for the causal-explanatory natural sciences, Dilthey wanted to develop a foundation for the interpretative historical sciences. It seems that Dilthey equates culturally acquired, human experiences with experiences in general.

Heidegger, another founder of 20th Century hermeneutics, whose philosophy regarding animal experiences I have explored elsewhere, follows the same line of reasoning. Heidegger conceives of understanding and experience as understanding and experience of the world that is made up of other beings. He restricts this capacity to humans because only humans are able to understand beings as beings (Heidegger, 1929-1930/1983; Blans & Lijmbach, 1996; Lijmbach, 1997).

Thus, the subject matter of the *Geisteswissenschaften* or hermeneutical sciences seems to be the understanding of human experiences only. Hermeneutics see only human behaviour - and especially typically human products such as texts, tools, works of art, and other artefacts - as expressions of experiences. All non-human nature does not seem to express experiences. As far as we understand non-human nature, we understand our own human meaning given to it. According to this sense of hermeneutics, "*Geisteswissenschaften*" is correctly translated as "humanities". I call this line of reasoning "classical hermeneutical"

¹ Kockelkoren for instance, who looks for the possibility of understanding meaning in non-human nature, rejects Dilthey for this reason (Kockelkoren, 1992, pp.16-41).

because it confirms and carries forward the tradition of hermeneutics to which biblical exegesis and philology belong. I agree with this view on hermeneutics as far as it concerns human experiences and understanding. Humans are living in a historical and cultural way, which includes the way in which they experience the world. But I do not agree with its almost *a priori* restriction of experiences to human experiences. Maybe our speaking of animal experiences, for instance in animal welfare debates, is philosophical nonsense. To find out whether this is so, we must be aware of a possible incorrect inference from typically human experiences to experiences in general. *Hence, we must be open to the possibility of experience beyond typical human experience.*

Although Gadamer and Dilthey can be construed as classical hermeneuticists, each of them offers a possible view on animal experiences. To view Dilthey as a classical hermeneuticist is only correct if one does not consider his early writings before 1907. We saw that in these writings Dilthey extensively speaks about animal experiences. Some animals do appear to us as experiencing beings, he says, and we do understand these animals by reliving their experiences as if these were our own (although animal experiences are mediated only by biological drives). So, the early Dilthey does not exclude animals as beings who express experiences from the domain of hermeneutics.

For various reasons I do not consider Dilthey's view on animal experiences and their understanding satisfactory. Firstly, he only says that animals have experiences involving biological drives such as the feeding, but he does not say anything about the animals' experience during eating. Dilthey just says that nature has given to animals a good and bad taste of food that are signs of the survival value of the food in question (the "cunning of nature"). He does not say in which aspects animal experiences, which are mediated only by biological drives, differ from human experiences, which are also mediated by spiritual drives. Do animals taste food, feel safe or experience sexual intercourse in the same way as humans? Secondly, conceiving of animal experiences as different from our own experiences raises the methodical problem that we cannot relive animal experiences as if these were our own. Since human experiences are mediated by spiritual drives or, as Dilthey later says, culturally acquired, animal experiences remain strange to us. A third, also methodical problem, especially if one sees animal experiences as different from our own, is that we cannot reach an agreement with animals on their experiences as relived or understood by us. In Dilthey's later philosophy, agreement between humans is possible because of a common - possibly extended - cultural-historical horizon of understanding. Between humans and animals there is no such common horizon of understanding.

Gadamer's conceptualization of human experiences of health and sickness opens up another and more promising way to conceptualize animal experiences as intermediate between human experience and the complete absence of experience. He states that human experiences of health and especially sickness are tied to a bodily and personal life situation, namely insofar as they are experiences of a balance or disturbance of this situation. Gadamer says

that this bond is hard to describe. But, as far as this situation concerns one's personal situation, it is not hard to describe. For Gadamer, who is after all a classical hermeneuticist, a personal life situation is that of a person living in a cultural and historical context. Being ill is experienced as a disturbance of one's family life and work. What is hard to describe is the connection to one's bodily life situation. Medical scientists describe this connection in physical, objectivating terms. They conceive of sickness as caused by particular physical states of the body. However, this is not experienced when feeling ill, Gadamer says. On the contrary, mostly we feel ill and ask the physician for the cause. It is this feeling of illness that is tied to our bodily and personal situation in a way that is hard to describe. *The bodily-bound aspect of human experiences of health and sickness suggests the idea of seeing animal experiences as bodily-bound experiences as well.* Perhaps we can conceptualize and understand animal experiences as experience of a balance or disturbance of their bodily life in an *Umwelt*.

In order to see animal experiences as such, we have to clarify the concept of a bodily-bound life, and especially that which relates to experiences. We have to do this because all living beings are in some sense bodily bound to a life within their own environment. Yet, one does not need to jump to the conclusion that, therefore, all living beings have experiences. It cannot be excluded that there are different ways in which organisms are bodily tied to a situation, of which only one or some ways are the foundation of experiences. Maybe it is right to say that all living beings are experiencing beings. Maybe it is only the human bodily bond that is the foundation of experiences.

Speaking of the bodily-bound character of experience evokes the name of Merleau-Ponty. Within philosophy he is the one who clarified the bodily origin of human experience. So, let us now turn to him in order to see whether the animal's bodily connection to the *Umwelt* can be conceived of as the origin of experiences.

PART TWO

CHAPTER VI

MERLEAU-PONTY: THE AMBIGUOUS HUMAN BODY

Maurice Merleau-Ponty (1908-1961) is called “the philosopher of the body”, and rightly so. In all his writings the body is the central theme. Like the hermeneuticists Dilthey and Gadamer, Merleau-Ponty has worked out a philosophical concept of experience. The direction of Merleau-Ponty’s philosophical aim, however, is opposite to that of the two hermeneuticists. Dilthey and Gadamer need a philosophical concept of experience in order to found respectively *geisteswissenschaftliches* and daily understanding. Merleau-Ponty does not want to found understanding by means of experience, but asks for the foundation of experience itself. He considers the body this foundation. I have chosen to discuss Merleau-Ponty because I want to explore whether the body of animals can also be viewed as the foundation of experience. In looking for an answer to this question, we run up against a by now familiar difficulty, namely that Merleau-Ponty mostly writes about humans. In his most cited book, *Phénoménologie de la perception* [Phenomenology of perception] (1945), he hardly mentions animals. Only in *La structure du comportement* [The structure of behaviour] (1942) and his almost unknown *La nature. Notes. Cours du Collège de France* [Nature. Notes. Courses of the College of France] (1995), he writes extensively about animals. The latter books are indispensable for exploring his view on the animal body. Another difficulty that Merleau-Ponty presents is that the way in which he conceives of philosophy changes during his lifetime. Very roughly one may say that he starts as a phenomenologist and ends as an ontologist. A sketch of this change will be presented in the first section (VI.1). In the next sections I will discuss Merleau-Ponty’s view on the human body as the foundation of experiences (VI.2) and his view on the animal body (VI.3). Then, inspired by what Merleau-Ponty says about the bodily comprehension of humans, I propose a concept of the impersonal meaning of animal experiences and expressions (VI.4). Finally, some conclusions concerning Merleau-Ponty’s contribution to the issue of conceptualizing and understanding animal experiences will be formulated (VI.5).

1. From phenomenology to ontology

Throughout his lifetime, Merleau-Ponty uses different words for referring to the foundation of experiences (Kockelmans, 1982/1993, p.134; Olkowski, 1982/1993, p.98). These different words reflect the above-mentioned change in his conception of philosophy. During his whole career Merleau-Ponty conceives of his philosophy as phenomenological ontology. In the

preface of *Phénoménologie de la perception*¹, for instance, he writes “Mais la phénoménologie, c’est aussi une philosophie qui replace les essences dans l’existence...” (PP, p.I).² However, in his early books the emphasis is more on the apparent reality and less on its essence than in his later books (also Tiemersma, 1988, p.10). Therefore, I will present the change in Merleau-Ponty’s conception of philosophy as a change from phenomenology to ontology.

In *La structure du comportement*, Merleau-Ponty develops a concept of consciousness by analyzing the notion of behaviour. He chooses behaviour for doing this because he sees the notion of behaviour as neutral with regard to the classical distinction between the physical as the outer and the psychic as the inner reality. Merleau-Ponty does not conceive of behaviour as belonging to the outer, physical reality and consciousness as its inner, psychic cause (as do the ethologists Toates, Wiepkema and Dawkins). Merleau-Ponty conceives of consciousness as a matter of behavioural structure (SC, pp.2-3).³ The main statement of *La structure du comportement* is that human behaviour and also some animal behaviour appears to us not only as a causal mechanism, but also and equally as an expression of consciousness. Therefore, he sees behaviour as a unity of objective bodily processes (as studied by the natural sciences) and subjective conscious experiences (as studied by the *Geisteswissenschaften*). In this view we clearly recognize a phenomenological attitude, one namely that aims at articulating the ways in which “things themselves” appear to us.

The central question of *Phénoménologie de la perception* is already different from that of *La structure du comportement*; however, the answer is less different. In *Phénoménologie de la perception* Merleau-Ponty reflects upon experiences in order to find out how they originate. He sees their origin in the phenomenal body. This is the body thought of both as an object, a perceivable body, and as a subject, a perceiving body. Our hands, for instance, can both be touched as well as touch. This is similar to his view on behaviour in *La structure du comportement*, in which he sees behaviour as both a causal mechanism and an expression of consciousness.

Between 1956 and 1960 Merleau-Ponty gave lectures about nature which have been edited and published as *La nature. Notes. Cours du Collège de France*. These lectures are clearly ontological in the sense of Merleau-Ponty’s view of ontology. In these lectures Merleau-Ponty says that the concept of nature is mostly seen as ontological. Usually, philosophers conceive of nature as the essence of beings, which is of another reality than

¹ References to *Phénoménologie de la perception* will be given by PP. Regarding the used translation, see the list of references at the end of this book.

² But phenomenology is also a philosophy which puts essences back into existence,... (p.vii). (Translations of quotes from *Phénoménologie de la perception* are derived from the English translation, see the reference list at the end of this book.)

³ References to *La structure du comportement* will be given by SC. For the used edition, see the reference list at the end of this book.

their apparent reality. A case in point is Heidegger, who writes about the ontological realm of being as the ultimate foundation of the ontic realm of particular ways of being. Merleau-Ponty, however, says that being is not another kind of reality than the apparent reality, but is “inside” the apparent reality. The nature or essence of beings is the same as their way of being (N, pp.265-267).⁴ In his lectures about nature, he elaborates this ontological position regarding the nature of organisms in general, and animals and humans in particular. He argues that this nature belongs to the given, apparent reality, although it is not itself an apparent thing or process. Humans and animals are living beings, but life is not something beside or behind physico-chemical elements. Life is in between these elements, he says. Merleau-Ponty uses the words “tissue” (*tissu*) and “folds” (*plis*) to name this “in between” area. Like the folds in textile, life is in between physico-chemical elements and consciousness in the living body (N, pp.275-280).

In his last books *L'oeil et esprit* [Eye and mind] (1961) and *Le visible et l'invisible* [The visible and the invisible] (1964), he calls the intertwining of body, consciousness and world the “flesh” (*chair*). This is the keyword in these books. The constitution of experiences is the central theme again. The flesh is - as the title of his last book says - visible as well as invisible. This term refers to the primordial intertwining that precedes conscious experiences. In *L'oeil et esprit* Merleau-Ponty emphasizes the flesh of the world; in *Le visible et l'invisible* the flesh of the human body. Of the flesh of the human body, he says that this is the abyss that divides *l'être-en-soi* and *l'être-pour-soi*, the body as perceived and as perceiving (VI, p.180).⁵ Instead of being the apparent intertwining of perceived and perceiving body, the flesh is the inconceivable foundation of both. In the same way the flesh of the world is the abyss that divides the world as seen and seeing. More than his other books, these later books are ontological. In *Le visible et l'invisible* Merleau-Ponty calls his own philosophy “*super-réflexion*”: expressing the tacit contact with the yet unsaid things (VI, p.61). In *L'oeil et l'esprit* it is the art of painting that preserves this tacit contact. In this book he calls the flesh of the world “*L'Etre*” (Being) (Tiemersma, 1988). This is quite ontological in the traditional sense, for example in the sense of Heidegger: thinking of being, the incomprehensible foundation of the particular ways of being.

2. The ambiguity of the human body

The intertwining of physical body, consciousness and world

Notwithstanding the different philosophical ways in which Merleau-Ponty speaks about the

⁴ References to *La nature. Notes. Cours du Collège de France* will be given by N. For the used edition, see the reference list at the end of this book.

⁵ References to *Le visible et l'invisible* will be given by VI. For the used edition, see the reference list at the end of this book.

human body, the main message of all his writings is that it is an intertwining of physical body and consciousness. Merleau-Ponty calls this intertwining “phenomenal body” and – later – “flesh”.⁶ This does not mean that the human body consists of a physical body and a consciousness, between which there is some kind of connection, as Descartes asserted. Rather, the body as intertwining is primary. To speak of the physical body and consciousness is our conceptual abstraction of this primordial intertwining. Every statement, including those that followers of Descartes make, about the physical body alone, consciousness alone, or their relation, is a construed abstraction (VI, pp.172-200). To speak of the physical human body is to abstract it from its conscious aspect, and vice versa. Nor does Merleau-Ponty say that the phenomenal body is a third substance that constitutes the physical body and consciousness. *The phenomenal body is both, ambiguous: physical body as well as consciousness. The phenomenal body is inconceivable. We can only conceive of it either as physical or as conscious body.* The phenomenal body is the body that moves, which includes walking as well as touching, seeing, hearing, and so on. Moving, however, is not a matter of a conscious subject setting a physical body in motion:

“Ce n'est jamais notre corps objectif que nous mouvons, mais notre corps phénoménal, et cela sans mystère, puisque c'est notre corps déjà, comme puissance de telles et telles régions du monde, qui se levait vers les objets à saisir et qui les percevait” (PP, p.123).⁷

Taking up a pencil is a bodily action. To take up a pencil does not require looking for and raising our hand as part of our body. Our hand just takes up the pencil. For explaining that the phenomenal body is inconceivable Merleau-Ponty uses the example of seeing. It is the body that sees as well as is seen. We see with our eyes, but not with our eyes as physical things. As physical things our eyes do not see anything, but can only be seen by other seeing eyes. Eyes that are both seeing and seen eyes are inconceivable (PP, p.123; N, pp.270-272 and pp.284-286).

The intertwining of physical body and consciousness also involves the external world. As was stated in the above quoted passage, the phenomenal body is the potentiality of this or that part of the world. We do not give our hand the form of the pencil to be grasped. Our hand takes this form while grasping a pencil. It is impossible to distinguish between the form of the pencil and its perceived form; they are one and the same. Merleau-Ponty calls this an “isomorphism” between the thing itself and the perceived thing. This does not mean that two things (the thing itself and the perceived thing) have the same form, but that both are primarily intertwined (intertwining of body and world) (PP, pp.376-385; N, pp.341-345). It

⁶ To prevent long and incorrect sentences, from now on I will only use the concept of phenomenal body and not the more ontological concept of flesh, unless explicitly stated otherwise.

⁷ It is never our objective body that we move, but our phenomenal body, and there is no mystery in that, since our body, as the potentiality of this or that part of the world, surges towards objects to be grasped and perceives them (p.106).

is only secondarily that we speak in terms of perceived form and form of the thing itself.

The bodily-bound openness of experiences

In chapter V, the difference between Gadamer's *Wahrheit und Methode* and his *Über der Verborgenheit der Gesundheit* has been described as a shift. In the former book he would conceive of experience as open, thanks to language. In the latter he would view experience as open but within the boundaries of a bodily and personal life situation. *Merleau-Ponty asserts that experiences are based on a bond to the body as well as on a bodily openness.* "[L]e corps est le mesurant du monde, je suis ouvert au monde parce que je suis *dedans* par mon corps." (N, p.279).⁸ He explains this bodily-tied openness to the world by means of various spatial perceptions (PP, pp.281-344). We always perceive space from our own bodily position. We never perceive space as physical or geometrical space. Something is far away, not because it is five or a hundred metres away, but because we cannot grasp it or have to walk to it. We see something upside down because it is upside down in relation to our bodily position. We see depth because we focus our eyes on something. The meaning of spatial terms and, therefore, all concepts of space are based on the spatiality, mobility and temporality of our body: "[L]'espace est assis sur notre facticité." (PP, p.294).⁹ These examples show us that perceiving - and experiencing in general - is not primarily a question of a perceiving subject and a perceived object, but of a relationship between body and world. *Our body mediates between the world and all our experiences of the world. In this sense all our experiences are bound to the body.* This is not due to our physical body but to our phenomenal body, that is, the intertwining of physical body and consciousness. When we cannot grasp a thing which is far away, it is not only a problem because of the length of our arms, but also because it frustrates our desire.

In the previously cited passage, however, Merleau-Ponty also says that we are open to the world because we are in it bodily. The expression 'openness to the world' in Merleau-Ponty agrees with Gadamer's meaning of it, namely the capacity to experience the world in different ways. If we cannot grasp a thing with our hand, we are able to walk to it and take it. This ability is a bodily ability. A thing can be far away or close by, dependent on the position and movement of our body. Again, this mobility of the body is not a mere physical matter, but a matter of the phenomenal body. Walking is not a mere displacement of our physical body, but the bodily act of going somewhere. Seeing something as a box (rather than as a flat plane) is possible because of our ability to move our body. *It is our phenomenal body that makes possible different experiences of the world, because our phenomenal body can take up different positions in the world.* As Merleau-Ponty says: "Ces éclaircissements

⁸ The body is the measure of the world, I am open to the world, because I am in it through my body.

⁹ [S]pace has its basis in our facticity (p.254).

nous permettent enfin de comprendre sans équivoque la motricité comme intentionalité originale. La conscience est originairement non pas un “je pens que”, mais un “je peux” ” (PP, p.160).¹⁰

3. The animal body

Merleau-Ponty sees the phenomenal body not only as primary to the physical body and experiences, but also as primary to the world. (See the aforementioned intertwining of physical body, consciousness and world, and the isomorphism between the form of the things and the perceived form.) Therefore, Merleau-Ponty also writes about worldly consciousness and worldly flesh (N, pp.279-280). This raises the question of whether we can also see the perceived world as a subjective world, just as we can see the perceived human body as a subjective body (Bernet, 1993). In the aforementioned example of taking up a pencil, there would be no reason to deny that pencils are also an intertwining of physical body, consciousness and world. One can say as well that thinking about pencils as mere physical objects is as much an abstraction as thinking about human bodies as mere physical objects. In *L'oeil et l'esprit* Merleau-Ponty's answer to this question is positive. In this book, he says that non-living things are seen as well as seeing things. If we touch a thing, we also are touched by it.¹¹ This is the “flesh of the world” that some painters want to express and that precedes conscious experiences of the world such as scientific observations (Tiemersma, 1988). In his other books, however, Merleau-Ponty restricts subjectivating concepts such as consciousness, perceptions, experiences and meaningfulness to humans and living nature. Especially in the books in which he writes about non-human organisms, he develops a philosophy of the vital order that, as opposed to the physical order, is characterized by what I call “subjectivity”.

The vital order

Both in *La structure du comportement* (which from now on will be abbreviated as *La structure*) and *La nature. Notes. Cours du Collège de France* (which from now on will be abbreviated as *La nature*), Merleau-Ponty writes about the vital order opposed to the physical and the human order. In both books, he conceives of the vital order (or life) as “something” between the physico-chemical elements of organisms which presupposes some form of consciousness.

In both books Merleau-Ponty says that the relationships of organisms to their

¹⁰ These elucidations enable us clearly to understand mobility as basic intentionality. Consciousness is in the first place not a matter of ‘I think that’ but of ‘I can’ (p.137).

¹¹ Unfortunately Merleau-Ponty uses living entities such as trees and landscapes as examples of worldly flesh.

environment are relationships of meaning (SC, pp.174-175; N, pp.229-230). In *La nature* he explains these relationships of meaning by giving a philosophical interpretation of Von Uexküll's *Umwelt* concept (N, pp. 228-234). Von Uexküll said that all living beings are living in an *Umwelt*. Not the whole environment in which they are living influences them, but only those portions of it which they are able to perceive and in which they are able to act. Von Uexküll called the perceived world the "*Merkwelt*" (world of notice) and the world in which action occurs the "*Wirkungswelt*" (world of action). Together they make up the *Umwelt*. An activity which Von Uexküll called "subject" or "natural factor" connects the perceptions and actions of organisms into functional circles (Von Uexküll, 1920). Merleau-Ponty considers Von Uexküll's concept of *Umwelt* a concept that connects two activities which are usually seen as disconnected, namely the activity that creates organs and the behavioural activity. Both activities imply the unfolding of an *Umwelt*, he says. For instance, during the ontogenetic development of organisms, the sense organs (and, thereby, a future *Umwelt*) develop themselves. This future *Umwelt* is not the goal of the ontogenetic development, because later actions of organisms also influence their perceptions of the *Umwelt*, as is highlighted by the aforementioned concept of functional circle. Like a melody in music, the *Umwelt* is a theme that unfolds itself during the life of organisms. The philosophical questions which Merleau-Ponty asks are: what exactly unfolds itself, and from where.

His answer to the first question is that relationships of meaning between organisms and their environment unfold themselves. Organisms are directed at and react to ensembles of stimuli rather than separate, quantitative stimuli. Organisms do not act in or react to a physically conceived environment. They act in and react to a perceived environment, as is captured in Von Uexküll's notions of *Merkwelt* and *Wirkungswelt*. Organisms can react differently even to the same environmental conditions. These relationships between organisms and their environment cannot be explained causally, but must be viewed as relationships of meaning: "Entre la situation et le mouvement de l'animal, il y a un rapport de sens qui traduit l'expression d'*Umwelt*" (N, pp.229-230).¹² Merleau-Ponty's answer to the second question is that the source of the unfolding of the *Umwelt* must be found inside organisms. This source is like tissue between the physico-chemical elements of organisms. At this moment consciousness shows up: "L'*Umwelt* ne se présente pas devant l'animal comme un but, il n'est pas présent comme une idée, mais comme un thème qui hante la conscience." (N, p.233).¹³

In *La structure* Merleau-Ponty also sets out a concept of life that implies consciousness:

¹² Between the situation and the movement of the animal there is a relation of meaning, which is expressed by the term *Umwelt*.

¹³ The *Umwelt* does not appear to the animal as a goal, and is not present as an idea, but as a theme that haunts consciousness.

“Il n’est pas question, nous l’avons assez dit, de revenir à une forme quelconque de vitalisme ou d’animisme, mais simplement de reconnaître que l’objet de la biologie est impensable sans les unités de signification qu’une conscience y trouve et voit s’y déployer. “L’esprit de la nature est un esprit caché. Il ne se produit pas sous la forme même de l’esprit; il est seulement esprit pour l’esprit qui le connaît: il est esprit en lui-même, mais non pour soi-même.” [quote Hegel - SL] En réalité donc, nous avons déjà introduit la conscience et ce que nous avons désigné sous le nom de vie était déjà la conscience de la vie.” (SC, pp.174-175).¹⁴

So, in both books, Merleau-Ponty says that organisms are meaningfully related to their *Umwelt*, which presupposes a consciousness “inside” them. *This would lead to the conclusion that the bodies of all organisms are phenomenal bodies, namely appearing as a consciousness in between their physico-chemical elements.*

Although Merleau-Ponty presents this philosophy as a philosophy of life in general, it is unclear whether he is writing about all organisms or about animals only. The aim of *La structure* is to develop a concept of consciousness, which Merleau-Ponty does by analyzing behaviour since he sees behaviour as an expression of consciousness. As we will see, however, the three kinds of behavioural structures that express consciousness concern only animal and human behaviour. Whether micro-organisms and plants are also held to exhibit behaviour is unclear. In a footnote in the introduction of his book, Merleau-Ponty says that humans and animals (but not acids, electrons, pebbles and clouds) perform behaviour (SC, pp.2-3). He does not mention other non-human organisms besides animals. Also in *La nature* Merleau-Ponty never mentions micro-organisms and plants. He tacitly equates organisms with animals, as the following quote illustrates. “Le vivant n’opère qu’avec des éléments physico-chimiques, mais ces forces subordonnées nouent entre elles des relations inédites. On peut, à ce moment-là, parler d’un animal.” (N, p.232).¹⁵

Whatever one thinks about plants, Merleau-Ponty says that at least some animals appear to us as consciously and meaningfully related to their *Umwelt*. This view raises the question of whether the intertwining of physical body, consciousness and world in animals, like in humans, is the foundation of meaningful experiences. In order to answer this question, Merleau-Ponty’s distinction between animals and humans is important.

The animal and human order

Both in *La structure* and *La nature*, Merleau-Ponty makes a distinction between animals and

¹⁴ As I have already stated several times, we do not have to return to vitalism or animism, but must simply recognize that the object of biology is unthinkable without units of meaning, which a consciousness finds and sees unfolding in them. “The mind of nature is a hidden mind. It does not appear in the proper form of mind; it is only mind for the mind which knows it: it is mind in itself, not for itself.” So, actually we already have introduced consciousness, and what we have called life, already was consciousness of life.

¹⁵ Life operates only with physico-chemical elements, but these subordinate forces tie between themselves new relations. At that moment, one can speak of an animal.

humans. *La structure* is a criticism of two behavioural theories that were current at the time of writing, namely the reflex theory and the *Gestalt* theory. Both theories see behaviour as caused by the environment. Merleau-Ponty, by contrast, sees behaviour as both a causal and a conscious phenomenon. The structure of behaviour is an expression of consciousness, he says. In his own theory of behaviour, Merleau-Ponty distinguishes three kinds of behavioural structures: a syncretic (which is normally called innate behaviour), a removable (which is normally called learnt animal behaviour), and a symbolic (which is normally called cultural human behaviour) (SC, pp.114-138). For explaining the difference between animals and humans, only the last two structures are relevant.

Merleau-Ponty explains this difference by means of an example. A dog is able to learn to jump over a chair after the sound of a bell in order to get food. This behaviour is not understood properly if conceived of as a causal chain between the sound of the bell, the jumping behaviour of the dog, and the availability of food. The dog's jumping is not the mere effect of the sound of the bell and the cause of the availability of food. The dog has learnt to change the positions and movements of his own body in order to reach a goal. Therefore, Merleau-Ponty calls this behaviour "removable behaviour" (SC, p.127). There is a relation between the sound of the bell, the dog's jumping and the availability of food which in human language is called a "means-end-relation" (SC, pp.119-120).

The qualification "in human language" is important because it designates the difference between a removable and symbolic behavioural structure. This difference is that the latter structure presupposes a special capacity to learn. In the above-mentioned example this is the capacity to learn that the sound and jumping are means to getting food. In other words, a symbolic behavioural structure presupposes the capacity to learn the meaning of these phenomena. Only humans can learn this, because only humans are able to make a distinction between the sound, the jumping and the availability of food as physical and as meaningful phenomena. This does not imply that the sound and the dog's jumping behaviour are meaningless. For a dog, the sound of the bell and his own jumping behaviour are signals that refer to something else, namely the future availability of food. The dog has experienced and learnt these empirical relations. To humans, the sound of the bell and their own behaviour are not only empirically related, but also intrinsically. The sound of the bell is a command to jump, and jumping is a means to get food. This is the meaning of Merleau-Ponty's statement: "Ici [concerning humans - SL] le comportement n'a plus seulement une signification, il est même signification." (SC, p.133).¹⁶ *So, the two structures of behaviour are two different types of meaningful relations to the environment. The behaviour of learning animals has an external meaning (the availability of food); human behaviour is in itself meaningful (a means to get food).*

In *La nature* Merleau-Ponty makes a similar distinction between animals and humans,

¹⁶ Here behaviour does not only *have* a meaning, it *is* itself a meaning.

although he uses other words. Here, Merleau-Ponty distinguishes with regard to the relations to their respective *Umwelt* between lower and higher animals on the one hand and humans on the other. The *Umwelt* of lower animals (i.e., those without a central nervous system and central organization) is pre-established and closed. After their ontogenetic development, the environment for which these animals are sensitive does not change any more. Higher animals, by contrast, shape their *Umwelt* during their whole life (N, pp.221-226 and p.283). This distinction corresponds with the distinction between a syncretic and a removable behavioural structure in *La structure*. In terms of the *Umwelt* theory, one can formulate the above-mentioned learning process of the dog as the creation of a new functional circle, namely between the sound of the bell, his own jumping and the availability of food. Learning by higher animals is to relate to each other these empirical phenomena in a meaningful way. This is what is meant by saying that the dog shapes his own new *Umwelt*. Although higher animals are able to shape their own *Umwelt*, they do this in another way than humans:

“De plus il [the human body - SL] est ouvert, transformable; le corps s’arme d’instruments d’observation et d’action - Donc non rapport avec le système de déclencheurs préétabli, gangue et rails du comportement, extase dans cette mélodie, clôture en elle, mais son “interprétation”, son projection de système d’équivalence et de discrimination non naturels. Non plus corps fusion avec un *Umwelt* mais corps moyen ou occasion de projection d’un *Welt*.” (N, pp.283-284).¹⁷

In this quote, the difference between animals and humans is the same as in *La structure*.¹⁸ In both books, Merleau-Ponty says that only humans interpret the meanings of symbols, which in an unnatural (instead of empirical) way are similar or different. When humans learn the meaning of jumping over a chair, this implies learning also that it is possible that an empirically totally different form of behaviour may be a means to getting food. A dog, by contrast, has to learn all over again that jumping over another kind of chair also results in the availability of food (SC, pp.130-131).

In terms of consciousness, Merleau-Ponty distinguishes between humans and animals as follows: “Mais refuser aux animaux la conscience au sens de conscience pure, la *cogitatio*, ce n’est pas faire d’eux des automates sans intérieur. L’animal, dans une mesure variable

¹⁷ Besides, it is open, transformable; the body arms itself with instruments for perception and action - Thus, there is no relation with a system of pre-established stimuli, no envelope and rail of behaviour, no ecstasy within this melody, and no being closed in it. But there is “interpretation”, that is the projection of a system of unnatural similarity and difference. Not a fusion of body and *Umwelt*, but body as a means or opportunity to project a *Welt*.

¹⁸ In view of the distinction between lower and higher animals, Merleau-Ponty incorrectly sets lower animals with a pre-established and closed *Umwelt* in opposition to humans.

selon l'intégration de son comportement, est bien une autre existence, ..." (SC, p.137).¹⁹ In *La nature*, which is more ontological, Merleau-Ponty explains the "other existence" of animals wherefore we cannot deny them some form of consciousness. In this book, Merleau-Ponty criticizes the Cartesian concept of humans as animals with a pure consciousness or reason on top of their physical body. Humans are primarily an intertwining of the animal way of being and 'reason', he asserts. Cartesian reason or pure consciousness has escaped from its body.²⁰ This escape does not mean that a physical body is left behind. Pure consciousness exists alongside a phenomenal body. In this sense the human way of being is an intertwining of the phenomenal animal body and pure consciousness, and having a phenomenal body distinguishes animals from automata.

Yet, the phenomenal animal and phenomenal human body are different: "Le rapport animal - homme ne sera pas hiérarchie simple fondée sur une addition: il y aura déjà une autre manière d'être corps chez l'homme." (N, pp.276-277).²¹ Here Merleau-Ponty says that the animal and the human bodily ways of being vary in that only the human phenomenal body has the capacity to set free a pure consciousness.

Animal experiences

I have written above exclusively in terms of meaning and consciousness, while the subject matter of this book is animal experience. The reason for doing this is that Merleau-Ponty uses only those terms in the two books dealing with non-human organisms. Especially because Merleau-Ponty says that consciousness appears with life in general, the question of whether the bodily animal consciousness is the foundation of animal experiences becomes relevant. Simply relating experiences to consciousness would imply that also micro-organisms, which Merleau-Ponty views as conscious, are experiencing beings.

Merleau-Ponty never mentions animal experiences explicitly. *Phénoménologie de la perception* concerns the human phenomenal body as the foundation of perceptions. In this book, he never mentions animal perceptions and their foundation. In *La nature*, the concept of *Umwelt*, of which perceptions are an element, covers all organisms. However, Merleau-

¹⁹ But to deny animal consciousness in the sense of pure consciousness, the *I think*, is not making them automatons without an interior. Animals, in a variable way dependent on the integration of their behaviour, represent another form of existence,...

²⁰ An objection may be that animals and humans differ because only humans have a pure consciousness which has been embodied rather than escaped from the body. However, bodily going around in the world by humans is not reached in a roundabout way through pure consciousness, Merleau-Ponty would reply. On the contrary, conscious thinking is based on going around in the world with a phenomenal body, as also is clear from his examples of human perception. Besides, we cannot understand the emergence of pure consciousness in humans by seeing it primarily as pure consciousness. (See also Plessner in the following chapter.)

²¹ The relation between animals and humans is not one of a simple hierarchy based on an addition: there is already another way of bodily being in humans.

Ponty tacitly jumps from organisms to higher animals. He does not write about micro-organisms and plants. He does not say whether or not these organisms perceive and act in an *Umwelt* in the same way as animals. In other words, he does not say whether the bodies of micro-organisms and plants are phenomenal, experiencing bodies too. In the following chapter we will see that Plessner, whose philosophy of life is more elaborated than Merleau-Ponty's, explicitly states that only higher animals have experiences.

4. Personal humans and impersonal animals

Merleau-Ponty holds that animal behaviour possesses meaning. In *La Nature*, he states that the relationships between organisms and their *Umwelt* are relationships of meaning (N, pp.229-230). In *La structure* he says that some forms of animal behaviour, namely learnt behaviour, appear as meaningful (SC, pp.174-175). Speaking of the meaning of animal behaviour raises the question of the precise character of this meaning. This is the same question that we came across in the chapters about Dilthey and Gadamer. If one does not consider animals cultural-historical or linguistic beings, what could then be the character of the meaning of animal expressions?

Merleau-Ponty also restricts language, culture and history to humans. With regard to animals, he writes in terms of "pre-culture", "the beginning of culture" and "directed at the interpretation of symbols" (N, p.231). But, unlike the later Dilthey and Gadamer, he does not restrict the understanding of humans to linguistic or cultural-historical understanding. Merleau-Ponty distinguishes between bodily comprehension and conscious understanding of other humans. This distinction offers an idea of the process of understanding animal experiences and it suggests a concept for naming the character of the meaning of animal behaviour.

Bodily comprehension and understanding of other humans

Exactly for the same reason as Dilthey (see chapter IV.2), Merleau-Ponty rejects the view that we know the experiences of others through some kind of reasoning by analogy:

"C'est de la même manière que je comprends autrui. Ici encore, je n'ai que la trace d'une conscience qui m'échappe dans son actualité et, quand mon regard croise un autre regard, je ré-effectue l'existence étrangère dans une sorte de réflexion. Il n'y a rien là comme un "raisonnement par analogie". Scheler l'a bien dit, le raisonnement par analogie présuppose ce qu'il devait expliquer. L'autre conscience ne peut être déduite que si les expressions émotionnelles d'autrui et les miennes sont comparées et identifiées et si les corrélations précises sont reconnues entre ma mimique et mes "faits psychiques". Or, la perceptions

d'autrui précède et rend possible de telles constatations, elles n'en sont pas constitutives." (PP, 404).²²

In summary, Merleau-Ponty says that the argument from analogy is a logical procedure based on, rather than resulting in, the appearance of other bodies as humans. This is similar to Dilthey's view that the argument from analogy has to be justified by our factual understanding of humans and animals. With regard to other humans, Merleau-Ponty says that empathy (that is, an articulation of our bodily openness to the world) is the basis of their appearance to us as humans (N, p.281). This is also similar to Dilthey's view that the understanding of other humans is primarily a matter of empathy, namely reliving their experiences as if these were our own.

Merleau-Ponty, however, emphasizes the bodily character of empathy. Empathy does not concern the understanding of someone's experiences, but the appearance of someone as an experiencing being: "re-enact the alien existence". As he says with regard to the understanding of human sexuality: "Il y a une "compréhension" érotique qui n'est pas de l'ordre de l'entendement puisque l'entendement comprend en apercevant une expérience sous une idée, tandis que le désir comprend aveuglément en reliant un corps à un corps." (PP, 183).²³ In this passage Merleau-Ponty sees the process of understanding, articulated by such authors as Dilthey and Gadamer, as founded in the body. The understanding of human sexuality is not primarily a matter of understanding sexual experiences within a cultural-historical context, as for instance Dilthey would say. The understanding of sexuality is of another order, Merleau-Ponty holds. Sexuality is primarily comprehended by the body. The understanding of humans in the hermeneutical sense, namely within a cultural-historical context, is possible because we already are bodily situated in an intersubjective world (PP, pp.404-408). *Thus, Merleau-Ponty distinguishes between the bodily appearance and comprehension of other humans on the one hand and systematic, hermeneutic understanding of their expressions as cultural-historical on the other.*

"Mais est-ce bien autrui que nous obtenons ainsi?", Merleau-Ponty asks (PP, p.408).²⁴ His answer to this question is as follows: "Nous nivelons en somme le Je et le Tu dans une expérience à plusieurs, nous introduisons l'impersonnel au centre de la subjectivité, nous

²² In the same way I understand the existence of other people. Here again I have only the trace of a consciousness which evades me in its actuality and, when my gaze meets another gaze, I re-enact the alien existence in a sort of reflection. There is nothing here resembling 'reasoning of analogy'. As Scheler so rightly declares, reasoning by analogy presupposes what is called on to explain. The other consciousness can be deduced only if the emotional expressions of others are compared and identified with mine, and precise correlations recognized between my physical behaviour and my 'psychic events'. Now the perception of others is anterior to, and the condition of, such observations, the observations do not constitute the perception. (p.352)

²³ There is an erotic 'comprehension' not of the order of understanding, since understanding subsumes an experience, once perceived, under some idea, while desire comprehends blindly by linking body to body. (p.157).

²⁴ But is it indeed other people that we arrive at in this way? (p.355).

effaçons l'individualité de perspectives, ..." (PP, p.408).²⁵ In the bodily comprehension of another, we do not comprehend that "other" as another person or individual but as an impersonal subject. Merleau-Ponty uses the term impersonal also with regard to sleeping humans (PP, p.191). Sleeping is an ambiguous life event. While sleeping we are not mere physical bodies because we are still able to hear the sound of the alarm. Nor are we consciously listening while sleeping. In order to designate that non-conscious ability, Merleau-Ponty uses the term impersonal: "...ce qui ... rend possible le retour au monde vrai, ce ne sont encore que des fonctions impersonnelles: les organes des sens, le langage." (PP, p.191).²⁶ It is this impersonal ability that also belongs to the concept of a subject. Seemingly, subjects are not only personal but also impersonal. *I would say that the aforementioned distinction between bodily comprehension and hermeneutic understanding refers to other humans as respectively impersonal and personal subjects.*

The impersonal meaning of animal behaviour

Many of the things just said can also be said with regard to animals. It is possible to distinguish between bodily comprehension of animals as experiencing beings, and understanding of their particular experiences. Concerning their appearance, Merleau-Ponty states: "La vie animale renvoie à notre sensible et à notre vie charnelle." (N, p.338).²⁷ Notwithstanding this resemblance between the bodily appearance of humans and animals, I see a difference between the understanding of humans and animals. From this difference I infer a different character of their experiences.

With regard to humans, bodily comprehension is anterior to understanding as persons. Bodily comprehension of other humans presupposes that they are persons, although we do not comprehend them as such on this bodily level. With regard to life events such as human sleeping, Merleau-Ponty says these imply an existential step (PP, p.191). Human sleeping implies awaking, to be a conscious person. Even when sleeping beside someone, we 'know' whether it is our partner or just a friend. *Because of this implication, I think it better to use the term "pre-personal" with regard to humans.* Unlike Merleau-Ponty, I would not speak of sleeping humans as impersonal subjects, but as pre-personal subjects.

In animals, by contrast, our bodily comprehension of them as experiencing beings is not anterior to our understanding of them as personal beings because they cannot be persons. To be a person, or an "I", requires that one can see oneself as an experiencing being. Animals lack this capacity. Animals are able to experience but unable to reflect upon their

²⁵ What we do in effect is to iron out the I and the Thou in an experience shared by a plurality, thus introducing the impersonal into the heart of subjectivity and eliminating the individuality of perspectives (p.355-356).

²⁶ ...that... makes possible a return to the real world, are still only impersonal functions, sense organs and language. (p.164).

²⁷ Animal life reflects our own sensitivity and fleshly life.

experiences. In the case of animals, their experiences do not imply an existential step from a pre-personal to a personal way of being. In the next chapter about Plessner's philosophy of humans and animals, this difference between humans and animals will be explained more extensively.

Merleau-Ponty also avoids writing about a personal meaning of animal expressions. Concerning organisms in general, he uses the term "signification vital" (vital meaning) (SC, p.174). However, as we saw in the foregoing section, Merleau-Ponty is not very clear about possible differences between organisms, for example between micro-organisms, plants and animals. In not making such differences, it does not matter whether the expressed vital meaning is the meaning of experiences or not. *I propose to use the designation "vital meaning" with regard to organisms in general and another, more specific term with regard to experiencing animals, to wit: "impersonal meaning".*²⁸ The designation "impersonal meaning" conveys that animal expressions are similar to human expressions as expressions of experiences, but are also different from human expressions, insofar as they cannot be understood as personal expressions.

5. Life: third way between humans and non-living nature

Classical hermeneuticists, like the later Dilthey and Gadamer, restrict meaningful experiences and their expressions to humans. They see meaning as personal, cultural and historical. Since animals are not personal, cultural and historical, it is impossible to understand them as expressing meaning, the inescapable conclusion seems to be. Animals belong to the domain of nature, which we can only explain causally or functionally. *Merleau-Ponty's philosophy of life holds that all living beings are meaningfully related to their Umwelt, though in a way different from humans. He sees non-human life as intermediate between non-living nature and humans.*

Writing about human experiences of health and sickness, Gadamer emphasizes the bodily aspect of human experiences. These experiences, and actually all human experiences, are founded on their bodily way of being, he says. Human experiences are always experiences within a bodily and personal situation (see chapter V.2). The question, after having discussed Gadamer, was: can the animal bodily way of being also be seen as the basis of meaningful animal experience? In order to answer this question, the human bond to their bodies had to be clarified. *Merleau-Ponty's concept of the ambiguous phenomenal body can be seen as an explication of the human bond to their bodies.* Illustrated with many examples, he explains

²⁸ With regard to animals, Olkowski also writes in terms of an "unpersonal existence" because animals do not express their own needs, but the needs of their species (Olkowski, 1982/1993, p.100). In chapter IX and X of this book, the meaning of animal behaviour will also be related to their species.

how our bodily way of being in the world is the basis of all our experiences. Merleau-Ponty also explains why this bond to the body is “hard to describe”. In Merleau-Ponty, the bond of human experiences with the body means that these experiences are primarily experiences by the phenomenal body. *It is the phenomenal body that is hard to describe.* We can only describe it in terms of physical body or in terms of consciousness, while it is both.

The background of the previous question was that the bond to the body as the origin of experiences should be articulated more precisely. All living beings - and non-living beings as well - are in some sense bound to their body, while we do not say that, for example, viruses experience the world. With regard to this question, Merleau-Ponty’s philosophy of life is not clear. He never writes about non-human organisms in terms of experiences. If we might see perception as a type of experience, then all non-human organisms have experiences, because Merleau-Ponty’s use of the *Umwelt* concept (of which perceptions are an element) covers all non-human organisms. He also says that in all organisms, some form of consciousness is present which expresses itself in their appearance. *Merleau-Ponty does not say what type of intertwining of physical body and consciousness is the basis of experiences.* As we will see in the next chapter, Plessner provides an answer to this question.

Whether or not an expression of experiences, Merleau-Ponty holds that animal behaviour does have a meaning. This meaning is of another character than the meaning of human behaviour, however. Animal behaviour has a meaning, but is not in itself a meaning as distinct from its physical aspect, because animals are unable to distinguish between their own behaviour as physical and as meaningful phenomenon. As Merleau-Ponty says in *La Nature*, only human consciousness can escape from the phenomenal body, which is a requirement for making this distinction. *In this sense the meaning of animal behaviour is dually bound to the body: it originates in the body and remains a bodily meaning.*

A consequence of this dually bodily bond is that we cannot conceptualize animal expressions as expressions of personal, cultural and historical meanings. To be personal, cultural and historical requires the ability to understand one’s own and the expressions of others as meaningful, that is as distinct from their physical aspects. Animals lack this ability; only humans can make this distinction. *I propose the notion of the impersonal meaning of animal expressions.* This proposal is inspired by Merleau-Ponty’s distinction between the bodily comprehension and the understanding of other humans, and by the resemblance between the bodily appearance of humans and especially higher animals as expressing experiences.

CHAPTER VII

PLESSNER: THE AMBIGUITY OF THE ANIMAL BODY

In this chapter I will discuss the philosophy of Helmuth Plessner (1892-1985). I see his philosophy as occupying an intermediate position between Merleau-Ponty's philosophy of the human body and Buytendijk's philosophy of animals, which will be discussed in the next chapter. Especially because of the many professional and personal relations between Merleau-Ponty, Plessner and Buytendijk, it is strange that Merleau-Ponty and Buytendijk hardly refer to Plessner in their writings.¹ As we saw in the previous chapter, Merleau-Ponty extensively writes about the human body as the foundation of experience. He could easily have referred to Plessner for extending this idea to animals, who he now confuses with organisms in general. Buytendijk writes about the role of the body in animal as well as human experience. In order to give a basis to animal experience, however, he refers more to Merleau-Ponty's view on the human phenomenal body than to Plessner's view on animals. I consider Plessner's philosophy of life a sort of "missing link" between Merleau-Ponty and Buytendijk. Plessner extensively writes about the animal body as the foundation of experiences. More than Merleau-Ponty, he provides us with a way to conceptualize animal experience as intermediate between personal, cultural and historical human experience and the complete absence of experience.

In this chapter, I will first describe Plessner's position in relation to philosophical hermeneutics and the philosophy of biology at the beginning of this century (VII.1). In the second section, something will be said about the background, context, method and starting point of Plessner's philosophy of life (VII.2), which I will then summarize (VII.3). I will pay special attention to the difference between animal and human experience in Plessner's philosophy. We will see that Plessner's philosophy about the experiencing animal body can be seen as an articulation of what Merleau-Ponty says about non-human organisms in general, although Merleau-Ponty's writings are of a later date (VII.4). In the last section, I will present Plessner's view on animal psychology, in which he explicitly mentions Buytendijk as a representative of what he sees as good animal psychology (VII.5).

¹ Plessner, Merleau-Ponty and Buytendijk knew each other professionally as well as personally. In the preface to the second edition of his book "Die Stufen des Organischen und der Mensch" [The stages of organic and human beings] (1964), Plessner says that there certainly is a similarity between his own philosophy and that of Merleau-Ponty, but that this similarity is a coincidence (Plessner, 1928/1975, p.xxiii). For Merleau-Ponty this was not a coincidence. He explicitly refers to Plessner (see, for instance, Merleau-Ponty, 1945/1962, p.323). The relations between Buytendijk on the one hand, and Plessner and Merleau-Ponty on the other hand, are very clear. Buytendijk and Plessner wrote letters to each other, worked together for a while, and wrote an article together. Buytendijk had invited Plessner to the Netherlands after the latter's forced emigration from Germany in 1934. Buytendijk and Merleau-Ponty also wrote each other and met a few times (Struyker Boudier, 1993). In his writings, Buytendijk often refers to the philosophy of Merleau-Ponty.

1. Plessner's philosophical position

Together with Scheler and Gehlen, Plessner is considered one of the founding fathers of 20th Century philosophical anthropology. They all defended a particular way of human being (*der Sonderstellung der Mensch*) as distinguished from an animal way of being. Plessner's aim of developing such a concept of humans was twofold: on the one hand he intended to give a criticism of purely biological views on humans which were popular at that time, and on the other hand he wanted to give a foundation to the philosophy of *Geisteswissenschaften*, especially as developed by Dilthey (S, chapter I; Plessner, 1961/1978, chapter 1).²

Against a historicalizing concept of humans

Within historical science at the end of 19th Century, a movement originated that saw human actions as belonging to particular cultural-historical contexts (see the later Dilthey, for instance). This movement criticized the idea that human actions belong to a development of humankind. Plessner did not contest this view on human actions. History is not an expression of a superhuman development, force or spirit, he said. History is a matter of historically changing, human minds. This view on human history assumes that humans are the historically changing, but nevertheless permanent actors, on the stage of history. We cannot speak of human history if the concept of humans also melts into the changing air of history. *The concept of humans as historically changing requires a concept of a "human constant" as its foundation* (Plessner, 1961/1978, pp.23-24). Plessner considered it the task of philosophical anthropology to develop such a concept. Plessner's philosophy of life provides such a concept of humans and, thereby, a foundation for the philosophy of the *Geisteswissenschaften* that sees human expressions as cultural and historical.

Against biological concepts of humans

At first sight, one might be inclined to say that the aforementioned human constant is the biological nature of humans, because this nature is the permanent factor throughout human history. However, Plessner criticizes the idea that human nature is human biological nature. He explicitly criticizes evolutionary and organic concepts of human nature.

Plessner's criticism of evolutionary concepts of humans focuses on their view on human intelligence. Seen from the point of view of the evolution theory, humans are the outcome of and subjected to natural selection. Like other properties, intelligence is seen as a property by means of which organisms are able to adapt themselves to their environment. Many evolutionists say that intelligence is not a specific human property, but also belongs to animals. (See for instance Köhler's interpretation of his experiments to test the intelligence of chimpanzees which will be discussed in the next chapter.)

² References to *Die Stufen des Organischen und der Mensch* will be given by S, followed by the page(s). Regarding the used edition, see the reference list at the end of this book.

Plessner's criticism of this evolutionary view on human intelligence is that it denies human reason (*Vernunft*) by reducing humans to their bodies (Plessner, 1946/1983, p.53). In evolutionary theories, intelligence is conceived of as the ability to solve problems of adaptation, which exhibits itself in the organism's behaviour. Seen in this way, intelligence is a biological, namely behavioural, property which animals also possess. Animals are able to adapt themselves to their environment by means of intelligent, problem-solving behaviour. Humans, however, do not only adapt themselves to an environment, Plessner asserts; humans also have insight into their situation, on the basis of which they solve problems by creating their own cultural environment. Therefore, human reason, which elevates humans above the constraints of their natural environment, is not a biological category and is not subjected to natural selection. *Human reason is a transbiological phenomenon, Plessner concludes* (Plessner, 1946/1983, p.56). In his criticism of organic views on humans, it becomes clearer what Plessner means by 'transbiological phenomenon'.

The organic view on humans which Plessner criticizes is that of Von Uexküll. We already reviewed Von Uexküll's concept of *Umwelt* in the previous chapter. Von Uexküll said that all living beings are living in an *Umwelt*. Their sensory and motor organs are related to each other in sensorimotor functional circles that fit in their environment which is called their *Umwelt*. One cannot see living beings as distinct from their *Umwelt*, he held. Living beings and their *Umwelt* form a unity.

Plessner criticizes Von Uexküll because he sees also humans as living in a species-specific *Umwelt* (Plessner, 1946/1983, pp.58-59). For Von Uexküll the human *Umwelt* is just one among many; Plessner, however, holds that the human *Umwelt* is not similar to those of plants and animals. The human *Umwelt* can contain the *Umwelten* of plants and animals, but not the other way around. Only humans describe and comprehend the *Umwelten* of plants and animals. *The human way of being is not only a closed unity between humans and their Umwelt, but is also open to the Umwelt of others.*³

This answer to Von Uexküll unites Plessner's criticism of evolutionary and historical concepts of humans. Like plants and animals, humans are living in an *Umwelt*, albeit a cultural one. Unlike plants and animals, humans know that they (along with other humans and plants and animals) are living in an *Umwelt*. This knowledge transcends their *Umwelt* because it concerns a common, undetermined world that they can understand in different ways. Therefore, Plessner speaks of the human *Welt* (world) instead of the human *Umwelt* (Plessner, 1961/1978, pp.70-74). Now it is also clear what Plessner means by saying that human reason is transbiological. Human knowledge that they are living in an *Umwelt* cannot be explained biologically, because it includes biological knowledge.

So far Plessner has offered us nothing new in comparison to Merleau-Ponty. Merleau-Ponty also writes about the human *Welt* instead of *Umwelt* because of the human openness

³ Plessner has derived the idea of human openness to the world from Scheler's *Die Stellung des Menschen im Kosmos* (1928).

to their environment. Contrary to Merleau-Ponty, however, Plessner has developed a philosophy of life that distinguishes animals from plants, and that opens up the possibility of a concept of typically animal experiences.

2. Introduction to Plessner's philosophy of life

Plessner wants to found the philosophy of the *Geisteswissenschaften* by means of a philosophical anthropology that defends the particular way of human being. The questions of such a philosophical anthropology are the emergence of humans from non-human life, and the place of humans within the latter (S, p.36). Plessner says that a philosophy about the development of life is needed in order to answer these questions. In his book *Die Stufen des Organischen und der Mensch* [The stages of organic and human life] (1928), he developed such a philosophy. In this section, I will give some introductory remarks on this book so that my summary of it in the following section can be understood.

Biological sciences and philosophy of life

Every philosophical anthropology that defends a non-biological human nature meets the problem of the emergence of this human nature from non-human life. The biological sciences can only explain the emergence of humans as a new biological species; they cannot but use their own scientific vocabulary which is inadequate for explaining the emergence of a non-biological human nature. Plessner asserts that this problem not only arises with regard to the emergence of a non-biological human nature, but also with regard to the emergence of the nature of plants and animals. The theory of evolution can only explain the development of organisms as a gradual, quantitative process. It cannot explain the qualitative development of life, that is, the transition from one form of life to another, such as from plants to animals. Only a philosophy of life can study and justify the categories and distinctions that biologists presuppose and use (S, p.116).

Plessner compares the difference between biological sciences and philosophy of life with the difference between the theories of colours by Newton and Goethe respectively. The quantitative, Newtonian theory of colours cannot explain the difference between red and green. Red and green are perceived colours, not perceived wave lengths. The Goethean theory of colours is about perceived colours, which Plessner considers just as real as Newton's wave lengths (S, pp.29-30). Likewise, Plessner's philosophy of life is a philosophy about the perceived distinctions between non-living and living beings, plants and animals, and animals and humans. *Thus, the question of the emergence of life itself and the different forms of life, including non-biological humans, is not a scientific question for Plessner. He sees this as a philosophical question, namely of how to comprehend non-human and human life, and their transitions.*

Various biological disciplines also study differences and transitions between plants, animals and humans. Biosystematics studies the properties of organisms in order to classify organisms into taxa, species, etc. Evolutionary biology studies the development of organisms and the origin and extinction of species. Plessner does not consider his philosophical concepts of forms of life and their transitions a criticism of or alternative to these biological sciences. His philosophical concepts articulate the presuppositions of these sciences. Contrary to the *a posteriori* classifications of the biological sciences that are based on observed properties of organisms, Plessner's philosophical classification is an *a priori* classification that precedes scientific observations (S, p.75). Let me explain this by an ordinary example, namely the question regarding the distinction between non-living and living beings. When I ask my students to establish this distinction, many of them answer that only living beings possess DNA. This is a scientific distinction based on an empirical property which non-living beings do not and living beings do possess. However, the presence of DNA as a distinguishing property is looked for, found or formulated only after one has already made a distinction between non-living and living beings. Plessner's philosophy of life concerns the grounds for this pre-scientific distinction. This does not mean that from his philosophical concepts of life and forms of life, scientific distinctions can and should be derived. As he says, his philosophical concepts make comprehensible the pre-scientific distinctions within science (S, p.236).

As the example of DNA clearly shows, Plessner's philosophy of life is relatively independent of the changing biological sciences (S, pp.117-118). Long before we knew about DNA, we made the distinction between non-living and living beings. Plessner's philosophy of life is also not totally independent of the biological sciences. Both refer to perceptions of living beings, although to differently perceived aspects. For example, a view on living beings as self-moving highlights another aspect of their motions than a mechanical view on them. Both types of perceptions should not be in contradiction with each other. Plessner holds that philosophy and science have to cooperate in order to comprehend their complex subject matter because it cannot be comprehended by philosophy or science alone (S, p.70).

Ontology and phenomenology in Plessner's philosophy of life

Plessner's philosophy of life is seen as a phenomenologically gained ontology (Corbey, 1988, pp.26-37; Redeker, 1995, pp.46-49). This philosophy aims at a description of the essential characteristics (*Wesensmerkmale*) of life and the different forms of life which it considers presupposed by the biological sciences. This clearly sounds ontological. Plessner gains knowledge of these characteristics through perceptions (*Anschaunungen*) which differ from scientific perceptions (observations). For example, the double-aspect character of life (see below) refers to an observable and an *anschauliches* aspect. It does not refer to two

observable aspects such as the colour and length of a table. Because of this *anschauliches* aspect, Plessner himself calls his philosophical method phenomenological (S, pp.114-115).⁴

Development of life: the coming out of an interior

Unlike evolutionists, Plessner does not start his philosophy of life with single-celled organisms from which he derives the emergence of plants, animals and humans. He starts his philosophy of life by asking why we call certain beings living beings. For example, what is the essential characteristic of a motion for it to be called a vital motion, he asks. The essential characteristic of life should logically imply the essential characteristics of different forms of life (plants, animals and humans) as its manifestations (S, pp.114-115).⁵

Plessner does not invent the essential characteristic of life out of the blue. The final aim of his philosophy of life is to understand the emergence of human nature from non-human nature, and the place of humans within the latter. Plessner agrees with philosophers of the *Geisteswissenschaften*, especially Dilthey, about their concept of humans. As we saw in chapter IV, Dilthey's concept of humans states that humans express inner experiences in their outer behaviour and artefacts. Plessner's philosophy of life aims at comprehending the emergence, from non-human forms of life, of this typical human relation between interior and exterior. Therefore, the relation between interior and exterior is a central theme in his philosophy of life. In the next section, we will see that Plessner generally sees the development of life as an increasing coming out of an interior of living beings.

3. Die Stufen des Organischen und der Mensch

The ambiguity of life

The first question of every philosophy of life is always: what is the distinction between non-living and living beings? Plessner's answer is that this distinction exists in the different ways

⁴ Usually philosophers relate phenomenology to Husserl, who primarily puts reality aside in order to abstract essences from our perceptions of reality. Husserl's philosophy is called an idealistic philosophy because it concerns the essence of our human ideas. Plessner, Merleau-Ponty and Buytendijk say that their philosophy is not about the essence of our ideas, but about the essence of, for example, humans and animals as expressed in their appearance. One can immediately agree with people who say that these essences are our concepts and ideas too. But the difference between both kinds of phenomenology is most strikingly expressed by Merleau-Ponty when he states that his phenomenology, contrary to Husserl's idealism, attempts to preserve the relation between our perceptions and the perceived world (VI, p.49 and p.61).

⁵ 'Logically imply' should not be read as derivable according to the rules of deductive logic. 'Logically' must be understood as conceptually. The philosophical concept of life in general should be formulated in such terms that each of its successive differentiations are determined in a step-by-step way. Because of this line of reasoning, Plessner says that his philosophical method can also be called dialectical. But because his philosophy of life concerns essential characteristics of life as apparent and perceived characteristics, he prefers to call his method phenomenological (see above).

in which the boundary with the environment is established. With regard to non-living things, their boundaries are spatial between body and environment. They belong neither to the body nor to the environment but are an empty in-between. At the boundary of a stone, the stone ends and its environment begins. Organisms, by contrast, realize their own boundary so that their boundary also belongs to themselves. Plants realize their own boundary by growing; animals also realize their own boundary by moving (S, pp.99-105). *Plessner calls this characteristic of living beings their "positionality": organisms position themselves in relation to their environment* (S, pp.127-132). With regard to life in general, Plessner writes in terms of "self" and "subject" (see, for instance, S, p.187). On this general level, however, these terms should not be understood as "conscious subject", but as "non-spatial centre" that controls the spatiality of the body whose centre it is (Grene, 1965, pp.90-91). As we will see, the selves of different forms of life are articulations of this abstract concept of self.

Because of their positionality, living beings have a double-aspect character. On the one hand, they are a physical body like non-living things, and are spatially bounded off from the environment. On the other hand, living beings are a self that has a body and that gives this body a place in the environment. In Merleau-Ponty's terms, living beings appear as ambiguous: as spatial bodies and as expressions of a non-spatial self. It is this ambiguity of living beings that is apparent in the boundary with the environment. The boundary between organisms and their environment is not only a spatial boundary, but also an expression of a non-spatial self. In terms of interior and exterior, the exterior of non-living things is the spatial boundary between body and environment. With regard to living beings, this spatial boundary is the expression of a non-spatial interior as well. Here we run up against the two aforementioned, different kinds of perceptions of living beings. Scientific observations are perceptions of only one aspect of the appearance of organisms, namely as spatial bodies. Phenomenological perceptions also include the second aspect of their appearance, namely as expressive bodies.

Positionality is the essential characteristic of life in general. Plessner elaborates this general characteristic further so that it generates the characteristics of three forms of life. These forms logically follow each other, and correspond with the way of being of plants, animals and humans respectively.

Open and closed positionality

Because of the spatial boundary with their environment, both non-living and living beings are closed. However, living beings are also open to their environment. They themselves realize and change their own boundaries with their environment. 'Closed' and 'open' do not refer to the exchange of matter and energy between beings and their environment, but refer to different ways in which the boundary between beings and their environment is established. *Because living beings are both closed and open, in all living beings there is a conflict between their closedness as physical bodies and their openness as organisms, Plessner says.*

He formulates different ways that solve this conflict, namely different types of organization which correspond with different forms of life (S, pp.218-219).

The first distinction that Plessner makes is between the form of life of plants and animals:

“Auf zweierlei Weise ist der Ausgleich [zwischen Organisation und Körperlichkeit - SL] möglich, in offener und in geschlossener Form. Findet der Ausgleich in offener Form statt, so liegt eine Pflanze vor, findet er in geschlossener Form statt, so zeigt das lebendige Ding die Merkmale des Tieres.” (S, p.219).⁶

He defines an open form of life as follows: “Offen ist diejenige Form, welche den Organismus in allen seinen Lebensäußerungen unmittelbar seiner Umgebung eingliedert und ihn zum unselbständigen Abschnitt des ihm entsprechenden Lebenskreises macht.” (S, p.219).⁷ An open form means that there is a direct (unmediated) contact between the organism and its surrounding environment at the surface of the organism. One can say that this is always the case. At the surface of a stone or human skin, there is also direct contact with the surrounding environment. In the passage just quoted, however, Plessner does not write about an organism as a physical body. He writes about an “organism in all its manifestations of life”, that is about an organism expressing its living self. By an “unmediated insertion into its environment” Plessner means that the relation between the physical body of plants (about which he is writing now) and their environment is not mediated by a self, as it is in the case of animals and humans the self of plants coincides with their spatial, physical body (see below) (S, pp.219-226). An example of this method of organization is the length and degree of branching of roots. Plants form their own roots under direct environmental influences. The length and degree of branching are directly related to the presence and amount of water and nutrients in the soil. Contrary to stones, of which the shape is also directly influenced by its environment, the plant itself grows. Therefore, one can - in a non-physical aspect - see the shape of the roots of plants as an expression of the plant’s self.

Actually, one cannot speak of an interior of plants, Plessner says, because plants lack a mediating centre. The self of plants “lies” directly “in” their exterior, i.e., in their spatial, physical body (S, p.225 and p.231). Plessner writes these words in quotation marks because he does not mean to say that the self of plants lies inside their physical body. As said, the self of plants and their spatial, physical body coincide. Hence, one cannot say that the self of plants is an interior self which expresses itself in their exterior. The self of plants is solely

⁶ There are two possible ways of compromising [between organization and being a physical body - SL], namely an open and a closed form. If the compromise is of an open form, one finds a plant. If the compromise is of a closed form, the living being has the characteristics of an animal.

⁷ That form is open which, in an unmediated way, inserts the organism in all its manifestations of life into its environment and makes the organism a dependent section of its corresponding life circle.

an aspect of their exterior. *The ambiguity of plants consists of the double-aspect of their appearance: in one aspect they appear as spatial and physical bodies, and in another aspect as exterior selves.*

About a closed form of life Plessner says: "Geschlossen ist diejenige Form, welche den Organismus in allen seinen Lebensäußerungen mittelbar seiner Umgebung eingliedert und ihn zum selbständigen Abschnitt des ihm entsprechenden Lebenskreises macht." (S, p.226).⁸ A closed way of organization means that the unmediated contact at the surface - in the foregoing sense - loses its importance in favour of a mediated contact through a self. Here, "mediated" has two meanings. Firstly, it means that the contact between an animal (because that is what Plessner is writing about now) and his environment is mediated by a self that does not coincide with his spatial, physical body. Secondly, it means that the body mediates between the animal self and its environment. The mediating animal self appears as inside or behind the physical animal body, and as possessing this body. Again, "inside" and "behind" should not be read as spatially inside or behind the physical body. Although the animal self, unlike the self of plants, can be thought of as distinct from the physical body, yet it is bound to it (S, pp.226-236). As Merleau-Ponty would say, the animal self cannot escape from the body (see chapter VI.3).

Unlike the self of plants, the animal self does not appear as a mere aspect of the exterior, but as constituting this exterior. In animals, there is a distinction between sensory and motor organs which creates what Plessner calls a "hiatus" (S, p.249). For example, bats perceive echo waves with their ears, but react to them by flying in another direction. The animal centre fills up this hiatus by mediating between the bats' perceptions of the environment and their motor actions in the environment (S, pp.226-234).

The foregoing explanation of the animal self concerns only higher animals. In lower animals (i.e., animals without a central nervous system) the organization of sensory and motor organs takes place on the level of separate sensorimotor functional circles. Each of these circles has a centre that mediates between these organs. Referring to Von Uexküll, Plessner says that animals with a decentralized way of organization are "republics of reflexes" in which the separate reflexes occur entirely autonomously (S, pp.245-248).⁹ With regard to these animals, Plessner speaks of an "*ausgeschaltetem Subjekt*" (a switched off subject) (S, p.245). In higher animals with a central nervous system, the organization of

⁸ That form is closed which in a mediated way inserts an organism in all its manifestations of life into its environment and which makes it to an independent section of its corresponding life circle.

⁹ An autonomous occurring of law-like reflexes might seem to be in contradiction to a mediating centre, for which there seems to be no need in reflexes. However, in Plessner and Von Uexküll, law-like behaviour and an organizing center do not exclude each other. An organizing center is needed as soon as sensory and motor organs are separated. The mere presence of a mediating center does not say anything yet about the way in which it mediates, law-like or otherwise (S, p.263).

sensory and motor organs takes place on the level of the whole organism. There is no one-to-one relation between perceptions and actions of these animals. Their sensory organs are more differentiated than those of lower animals. Hence, there is a surplus of perceptions which has to be related to motor organs and actions. This is centrally done by a subject (S, p.249). As Plessner also says, just as the brains of animals are the centre of their physical body, so their self is the centre of their *Leib*, i.e., their experiencing and acting body (S, pp.244-245). *Only animals with a central nervous system have a central self that coincides with their bodily centre* (S, pp.288-293).

With regard to animals, one can speak of an interior self. As has been said, in all living beings their exterior also appears as a self, though in different ways. The self of plants is an aspect of their apparent exterior. The self of animals is an interior self that is expressed in their apparent exterior. *The ambiguity of animals consists of their appearance to us as, in one aspect, a spatial and physical body and, in another aspect, an expression of an interior self.*

In Plessner's account of the animal form of life, we clearly recognize the *Umwelt* theory of Von Uexküll about the relation between organisms and their environment. What Plessner calls the animal self is comparable with what Von Uexküll called the *Gegenwelt* (counterworld), which closes functional circles by mediating between sensory and motor organs. The *Gegenwelt* is the inner counterpart of the outer *Umwelt* because it relates perceptions and motivations to act in the *Umwelt* to each other (Von Uexküll, 1920, p.96). Because of these functional circles, animals are closed, both Von Uexküll and Plessner say. With regard to animals, the meaning of 'closed' differs from its meaning with regard to non-living beings. Between non-living beings and their environment there is only a spatial boundary. Animals are closed off from their environment by the organization of their body into closed functional circles. Because the relations between animals and their environment (contrary to those of plants) are mediated by a *Gegenwelt*, animals are more autonomous in relation to their environment. Therefore, we see animal movements not only as going along with the environment, like the movements of a plant, but also as movements out of the animal self.

Now we see why we can better restrict the *Umwelt* theory to animals, namely because only animals have specialized sensory and motor organs. As we saw in chapter VI, Merleau-Ponty, like Von Uexküll, applied the *Umwelt* theory to all living beings. In plants, however, perceptions and actions are not separated and, thus, do not need to be related to each other through a *Gegenwelt*. As Plessner says, plants react to their environment in an unmediated way.

Now we can also understand that the open and closed way of organization are the successive stages of the appearance of an interior. The self of plants is an aspect of their body, while an animal's self is already seen as distinct from its body. Compared to the self of plants, the animal self is more autonomous, more independent of its physical body, though still bound to it. Because of this relatively autonomous self of animals, Plessner speaks of animals as being a body (*Körper*) and as having a body (*Leib*). Being a body means being

a physical body. The animal *Leib*, by contrast, is the living body that the animal self has. (See also Merleau-Ponty's statement in the foregoing chapter that moving our body is moving our phenomenal body rather than a self moving its physical body.) Plessner also formulates the ambiguous way in which animals appear to us in the term "*Körperleib*": both being a physical body in an environment and having a *Leib* that mediates between self and *Umwelt* (S, pp.239-240).

Centric and excentric positionality

Although we speak in terms of the animal self and the animal body, the animal self and body are not distinct from each other, Plessner says. We can only think of them as distinct. The self of animals remains bound to the body. The animal self is a bodily self. Only in higher animals we see that the gap between their self and their body becomes wider (Greene, 1965, p.100). The next stage of life follows logically, namely a self that is not bound to the body. This is the human form of life. Only humans have a self which is distinct from their body. This self is the human "I". Humans have a centre that does not coincide with their bodily self, but which knows it has a bodily centre. Thus, the human body is not the only centre of a human's life. Plessner calls this human form of life "excentric".

Usually, the ambiguity of humans is seen in a Cartesian way. Cartesians see humans as made up of a physical body (*res extensa*) and a reflective or conscious "I" (*res cogitans*). This is not what Plessner means by the typical human ambiguity. Although humans have a reflective "I" distinct from their bodily centre, it is not separated from the bodily self. The "I" is the -in itself incomprehensible - place and timeless "point of refuge" of the bodily self (S, p.290). *The typical human ambiguity consists in being an "I" and being a Körperleib* (S, p.292).¹⁰ This is in line with Merleau-Ponty's view on the human way of being: intertwining of the animal way of being and reason (see chapter VI.3). Plessner, however, would say that human reason cannot really escape from the body.

Given the distinction between centric and excentric positionality, it is clear that the human "I" is the next stage in the coming out of the self of living beings. The self of plants cannot be thought of as separated from their spatial and physical appearance; it is solely an aspect of their appearance. The animal self is an aspect of their bodily appearance too, but in another way, namely as an interior self that expresses itself in their bodily appearance. In humans, this bodily self partly escapes from their body, namely as an "I" that is able to distance itself from the body to which it nevertheless remains bound.

¹⁰ Actually Plessner says that the human ambiguity consists of being a soul and a *Körperleib*, the soul being the given, shaped, human inneworld (see below). In order to explain Plessner's concept of animal experience, I can and will neglect these distinctions concerning the human inner world.

Plessner considers the excentric positionality the last stage of life. It is the last stage in the coming out of the self of living beings.¹¹ In the philosophy of consciousness one often meets a *regressio ad infinitum*: if humans are conscious of themselves, they are also conscious of this consciousness, and so on. Along this line of reasoning there is a super-reflective “I” that reflects upon the reflective “I”, a super-super-reflective “I”, and so on. Plessner, however, rejects this reasoning because it sees the reflective “I” as separated from the body. He sees the “I” as still bound to its body as the *Körperleib* from which it originates. It is not constituted by a super-“I”, but is, as “point of refuge”, given with the excentric positionality. For example, the conscious bodily act of grasping something is not constituted by another conscious act, but grasping something consciously is given with the human way of life (Redeker, p.134; S, p.300).

As stated at the beginning of this chapter, Plessner’s aim was to found the philosophy of the *Geisteswissenschaften* on a philosophical anthropological basis that defends the particular way of human being. How Plessner sees this *Sonderstellung* of humans has been discussed above. It serves as a philosophical foundation of the *Geisteswissenschaften* by means of what Plessner calls “the law of natural artificiality” (S, pp.309-321). This law states: “Als exzentrisch organisiertes Wesen muß er sich zu dem, was er schon ist, erst machen” (S, p.309).¹² With regard to animals, their self, *Körperleib* and *Umwelt* are a natural unity in the sense of given with their way of being. The animal self coincides with its *Körperleib*, which forms a unity with its *Umwelt*. With regard to humans, this unity has been broken down. It is a part of human nature to have lost this natural unity. This ontologically given, broken unity is the origin of human culture, Plessner asserts, because humans have to restore the unity of their *Körperleib* and *Umwelt* in an artificial way. They must do this because the human self is still bound to its *Körperleib* and *Umwelt*. This does not mean that humans can or should restore a lost, natural unity. Humans cannot but create a unity with their *Körperleib* and *Umwelt* in an artificial, cultural way, Plessner states. As will be seen below, human culture does not express itself only in a cultural external world, such as buildings and artefacts, but also in a cultural human inner world.

¹¹ De Mul sees one more possibility of the coming out of the human self by means of virtual reality techniques (De Mul, 1995). In these techniques, the self is an unbodily self. By means of virtual reality techniques, it could, for instance, be possible to experience a holiday on a beach behind the computer screen without actually being there bodily.

¹² As an excentric being he has to make himself into what he already is.

4. The nature of animal and human experiences

In the philosophy of classical hermeneuticists such as in Gadamer and Dilthey's later writings, the problem with speaking of animal experiences is that experiences and their expressions are conceived of as cultural-historical or linguistic. Since classical hermeneuticists do not see animals as cultural-historical or linguistic, the conceptualization of animal experiences is almost impossible (see *Intermediate Reflections* 2). Plessner wanted to found a philosophy that sees human experiences and expressions as cultural-historical. Because he did not equate human experience with experience in general, his ideas resulted in a conceptualization of animal experiences that are neither cultural-historical nor linguistic.

The human inner world

As expected, Plessner's view on human experiences as distinguished from animal experiences must be seen in the light of his concepts of excentric and centric positionality. Because of their excentric positionality, humans have a three-fold world, Plessner says. They have an outer world (the world of objects), an inner world (the world of inner experiences) and a social world (the world of social relations) (S, p.293). Above I have distinguished the human world from the animal *Umwelt*. Actually, I only wrote about the human outer world, which humans perceive and in which they act. I will explain Plessner's view on the human inner world by comparing it with the human outer world.

For humans, the outer world has two aspects: it is the place where they bodily live (the cultural *Umwelt*) and it is the world upon which they reflect (the reality consisting of things in space and time). Similarly, the human inner world has two aspects: the inner world as bodily lived (*Erlebnisse*) and as given to the reflective "I" (the psychic reality) (S, pp.295-296).¹³ Pain, for example, has two aspects: feeling pain and being conscious of pain.

Plessner, criticizes the view that assumes that a bodily experience such as bodily pain is absolutely given to the reflective "I". Reflecting upon bodily experiences often simultaneously changes these experiences: "Unter den Blicken des Erlebnissubjekts kann sich das Innenleben stark verändern wie die empfindliche Schicht der photographischen Platten im Licht." (S, 297).¹⁴ Just as the *Umwelt* in which humans bodily live is cultural because it is created by them, the inner world which humans bodily experience is cultural as well. This view on human experiences is in line with Dilthey's later view that human experiences are culturally acquired.

¹³ In the chapter about Dilthey, I translated *Erlebnisse* as "lived experiences", but from now on I will translate this term as "bodily experiences" in order to emphasize their bodily bound character.

¹⁴ In the eyes of the experiencing subject, inner life can change as much as the sensitive layer of a photographic film changes in light.

Animal experiences

Plessner does not discuss the issue of animal experiences explicitly. In his explication of the central subjective organization of perceptions and actions in animals with a central nervous system, he always uses the term "consciousness". In his explication of the human inner world, he mentions animal *Erlebnisse* sometimes, namely when he compares humans to animals. From this comparison I will derive a concept of animal experience as bodily, here-and-now experience.

Plessner's criticism of the view that assumes that human bodily experiences are absolutely given is as follows:

"Mit einem derartigen Vorzug der Selbststellung hätte es jedoch nur dann seine Richtigkeit, wenn der Mensch ein ausschließlich zentrisch gestelltes und nicht, wie es der Fall ist, ein exzentrisches Lebewesen wäre. Für das Tier ist der Satz richtig, daß es in Selbststellung ganz es selber ist. Es ist in die positionale Mitte gestellt und geht darin auf. Für den Menschen dagegen gilt das Gesetz der Exzentrizität, wonach sein im Hier-Jetzt Sein, d.h. sein Aufgehen im Erleben nicht mehr in den Punkt seiner Existenz fällt. Sogar im Vollzug des Gedankens, des Gefühls, des Willens steht der Mensch außerhalb seiner selbst." (S, p.298).¹⁵

I interpret this passage as saying that animals, contrary to humans, are caught up in their bodily lived experiences. Because humans also are an "I" that reflects upon and transforms their bodily lived experiences (see above), they are not caught up in them. *In other words, animal experiences just occur without the animals knowing that they occur.* We must relate the phrase "here-and-now being" in the above quoted passage to the absence of an "I". Though bound to it, the human "I" does not coincide with its bodily self, i.e., its bodily experiences. The "I" that says "I move" is not the moving self. The place and timeless "I" (see above) knows of its own bodily, here-and-now lived experiences. For example, bodily felt pain is here and now, but being conscious of pain is not located somewhere. Animals, however, have only a bodily-bound self. *I would say that animals have only here-and-now, bodily lived experiences.*¹⁶ Unlike human bodily experiences, animal bodily experiences are

¹⁵ Such a privilege of the position of the self would only be right if humans would be solely centrically positioned living beings and not, as is the case, excentric. Regarding animals, it is right to say that they totally are themselves in the position of their self. Animals are positioned in their positional center. Regarding humans, however, the law of excentricity applies, which states that their here-and-now being, which means their being caught up in lived experiences, no longer coincides with their existence. Even in thinking, feeling or willing, humans are positioned outside themselves.

¹⁶ This view on animal experience is opposed to that of Carruthers', a contemporary philosopher of animal consciousness. Carruthers also says that only humans are reflecting beings who are able to be conscious of something. But Carruthers considers this a reason to say that animals, because they cannot be conscious of pain, do not feel pain. Animals only have pain, he says (Carruthers, 1992). In line with Plessner, I would say that Carruthers over-emphasizes the reflective, conscious aspect

absolutely given. There is no reflective "I" that can transform them. (See also Buytendijk about animal and human pain in chapter VIII.2.)

The conceptualization of animal experiences as bodily here-and-now experiences, which I inferred from Plessner's philosophy, is more positive than the one given after having discussed Merleau-Ponty, which was that animal experiences are impersonal, bodily experiences. The latter conceptualization is negative in the sense that it only says that animal experiences cannot be seen and understood as personal experiences within a cultural-historical context. Plessner has further elaborated animal experiences, in a way that is not in contradiction with Merleau-Ponty's view on animals. *The concept of animal bodily, here-and-now experiences implies that animals only experience their Umwelt and Leib as given at a particular time and at a particular place.*

At the end of the previous chapter, I said that animal experiences are dually tied to the body: they originate in the body and remain bound to the body. After having discussed Plessner, this bodily connection needs to be specified. As we saw, human experiences remain tied to the body too, because the human "I" - which transforms bodily experiences - remains bound to the body. Animal experiences are in another sense bodily-bound. They do not only originate in the body and remain bound to the body, but they also remain bodily experiences. These experiences cannot be reflected upon and transformed by an unbodily "I". *Animals only experience their given Umwelt and Leib from the point of view of their body.*

5. Animal psychology

In *Die Stufen des Organischen und der Mensch* Plessner makes a few remarks about the knowledge of animal experiences and animal psychology which existed at the time of his writing. He says that animal psychology has to steer a middle course between the Scylla of excluding research into animal consciousness and the Charybdis of anthropomorphism (S, p.68). Like Merleau-Ponty, Plessner sees animal behaviour in one aspect as a physical, causal phenomenon, and in another aspect as conscious phenomenon (*Körperleib*). Animal psychology should cover both aspects. It should not exclude animal consciousness and restrict itself to behaviour as a matter of stimulus-response. Neither should it make statements about animal consciousness irrespective of the physical aspects of animal behaviour as is done "on animal protection calendars and by fairy-tale tellers" (S, p.261). Steering the middle course is possible by what Plessner calls "*eine objektive Disziplinierung der Interpretation*" (an objective disciplining of interpretation) (S, p.261). In order to know animals as expressing

experiences, animal psychology must also include methodical interpretation¹⁷. Without such interpretation, we only know animals as physical bodies: "Ohne derartige Interpretationsversuche unterscheidet sich Tierpsychologie in nichts von Reiz- en Bewegungsphysiologie bzw. vergleichender Biologie im Sinne einer physiologisch arbeitenden Lebensplanforschung, deren Programm Uexküll aufgestellt hat." (S, p.261).¹⁸ Plessner mentions Köhler and Buytendijk as representatives of an interpretative animal psychology (S, p.69). They do experimental research into animal behaviour, but are at the same time fully aware that this behaviour is also an expression of animal experiences and thus needs to be interpreted. In the following chapter, we will see how Buytendijk combined experimental research with animals with an interpretation of their behaviour as an expression of experiences. We will also see that Buytendijk is not very clear about his own method of interpretation. In the subsequent chapter I will, therefore, present a systematic sketch of a method for interpreting animal behaviour in order to make this "objective and disciplined".

¹⁷ Actually Plessner says that animal consciousness rather than animal experiences should be the subject matter of animal psychology (S, p.68).

¹⁸ Without such attempts at interpretation, animal psychology cannot be distinguished from stimulus-response physiology or comparative biology in the form of research into life plans on a physiological basis, the programme of which has been formulated by Uexküll.

CHAPTER VIII

BUYTENDIJK: UNDERSTANDING THE MEANING OF ANIMAL BEHAVIOUR

Frederik Jacobus Johannes Buytendijk (1887-1974), a Dutch physiologist, did what the philosopher Plessner did not: namely, research into animal experiences. Plessner and Buytendijk knew each other's work. Buytendijk's work is even seen as "[giving] concrete body to Plessner's philosophical theory" (Greene, 1965, p.178). In this chapter we will see that this concerns Plessner's philosophy of the distinction between the animal and the human way of being and, therefore, the difference between animal and human experience. In his books and articles written before World War II, Buytendijk regularly refers to Plessner. When Merleau-Ponty starts to publish, however, he hardly refers to Plessner any more but mostly to Merleau-Ponty, even in his writings about animals. This is remarkable because, as we saw in chapter VI, Merleau-Ponty is not very clear about the animal body and animal experience.

In this chapter, I will first expound Buytendijk's view on the vital meaning of phenomena of life as distinguished from the personal, cultural and historical meaning of human expressions (VIII.1). The main part of this chapter will consist of a discussion of a few examples of his interpretations of animal behaviour (VIII.2). At the end, I will give some conclusions and comments with regard to Buytendijk's interpretative approach of animals (VIII.3).

1. The vital meaning of phenomena of life

Buytendijk's criticism of the natural sciences of animals

Contrary to the authors discussed in the previous chapters, Buytendijk was not a philosopher; he was a physiologist by training. Though himself an experimental scientist of human and animal behaviour, Buytendijk criticized the monopoly of natural-scientific, physiological explanations of behaviour.

At the beginning of Buytendijk's scientific career, in the early 20th Century, causal explanations of human and animal behaviour by means of the concept of reflex were very popular. Buytendijk conceived of reflexes as invariable, innate or engraved pathways between sensory stimuli and motor responses connected by nerves (Buytendijk, 1920/1932II, pp.1-6; Buytendijk & Plessner, 1935, pp.156-157). In a jointly written article, Buytendijk and Plessner criticize Pavlov's reflex theory of behaviour. They say that this theory does not actually explain observed behaviour. It only gives names to it, namely "stimuli" and "responses" (Buytendijk & Plessner, 1935). Buytendijk and Plessner consider the explanation

provided by the reflex theory (that neurophysiological processes causally determine behaviour) a purely hypothetical assumption. They also consider the assumption of the reflex theory, namely that a locatable center controls animal and human behaviour, an "imaginary metaphor" (Buytendijk & Plessner, 1935, p.164). This criticism must be read in the light of the time of writing. At the beginning of this century, neurophysiology was less developed than now. Now it is possible to test many of the theoretical assumptions by means of experiments. *However, the main point of Buytendijk and Plessner's criticism does not concern the untestable character of the reflex theory. It states that the use of words such as "arousal" and "inhibition" confuses behaviour as a meaningless event with meaningful behaviour* (Buytendijk & Plessner, 1935, p.166). This criticism can also be given of empirically testable and tested neurophysiological explanations. Thirty years later Buytendijk offers the same criticism of cybernetic models of animal and human behaviour. These models conceive of animal and human behaviour as determined by causal feedback mechanisms rather than as subjectively - and therefore meaningfully regulated - behaviour (Buytendijk, 1965, chapter CI; Buytendijk & Christian, 1963).

Buytendijk's criticism of natural-scientific explanations of behaviour might suggest that he totally rejects them in favour of understanding the meaning of behaviour, but this is not true. Buytendijk consistently speaks of explanation as well as understanding of behaviour. He is not clear, however, about the relationship between explanation and understanding of animal behaviour. In different books and articles, he writes differently about this relationship (see, for example, the difference between Buytendijk 1965, pp.83-84 and pp.229-252). The most promising view to start with is the one once given by Buytendijk himself. This view sees explanation and understanding as concerning two different knowable aspects of behaviour that cannot be studied simultaneously. One aspect concerns the (explainable) material conditions of behaviour, the other the (understandable) meaning of behaviour (Buytendijk, 1965, pp.83-84). This is similar to Merleau-Ponty's view that we know human bodies either as physical bodies or as expressions of meaning.

Life sciences alongside natural and human sciences

Buytendijk's view on animal behaviour as meaningful behaviour fits into his view on non-human life in general. Like Merleau-Ponty, Buytendijk says that all phenomena of life express a vital meaning. This meaning should be the subject matter of the life sciences (Buytendijk, 1938a, p.208; Buytendijk, 1948, p.35; Buytendijk, 1965, pp.78-79). Here Buytendijk positions himself against the classical hermeneutical concept of meaning and the dualism of explanatory, natural sciences and understanding, hermeneutical sciences. A dualistic world view forms the basis of this dualism within classical hermeneutics. It asserts that the world consists of experiencing humans, whose expressions are meaningful, and non-experiencing and thereby meaningless non-human nature (see *Intermediate Reflections* 2). Buytendijk does not agree with this dualistic world view. He distinguishes between meaningless non-living nature, living nature that bears a meaning, and humans who give

meaning to the world (Buytendijk, 1938a, p.94-95). *All phenomena of life (plants and animals but also bodily phenomena in humans such as breathing) have a meaning, though this meaning is not consciously experienced. He calls this meaning the "vital meaning".* By means of this concept Buytendijk distinguishes phenomena of life from - in itself meaningless - non-living nature as well as from meaningful human expressions.

Concerning the meaning of human expressions, Buytendijk agrees with classical hermeneuticists. It is typical for humans that the meaning of their expressions can be conscious and thematic, he says, whence this meaning is personal, cultural and historical. The subject matter of the *Geisteswissenschaften* consists of these personal, cultural and historical meanings, so that the *Geisteswissenschaften* truly are humanities (Dekkers, 1985, pp.176-177). Buytendijk, however, does not consider the *Geisteswissenschaften* to have an exclusive right to understanding. To be true life sciences rather than sciences of only the material aspects of life, the life sciences should be directed at understanding the vital meaning of phenomena of life (Buytendijk, 1925). *Buytendijk wanted to reintroduce organisms as subjects into the life sciences - but without identifying non-human living beings with humans and the life sciences with the Geisteswissenschaften* (Thinès & Zayan, 1975, p.86).¹ Later we will see what the consequences are of this category of non-human subjects, in addition to human subjects, for the understanding of animal experiences.

Vital meaning

Although Buytendijk says: "Nicht dass gedeutet bzw. verstanden werden muss, ist eine Crux der Wissenschaft, sondern wie." (Buytendijk & Plessner, 1935, p.166)², I think it must first be justified that there exists some meaning for the life sciences to understand. This requires a clarification of Buytendijk's concept of 'vital meaning', which we also need for a clear insight into the meaning of animal behaviour.

I will first explain this concept by saying how it must not be understood, namely by distinguishing it from the meaning of machines, the evolutionary meaning of phenomena of life and the meaning of human expressions; then I will give a more positive description of it.

Organized and self-organizing structures

Buytendijk always relates the vital meaning to the concept of function (see Buytendijk, 1948, pp.31-32). For explaining the difference between living beings and machines with regard to their function, Buytendijk focuses on living beings as self-organizing structures and machines as organized structures.

¹ The introduction of living beings as subjects into the life sciences is called a "reintroduction" because in earlier times, for example with Aristotle, living beings (and non-living beings as well) were seen as subjects because of their self-movement.

² The problem of science is not *that* but *how* it must be interpreted or understood.

Machines are organized structures in the sense that they are man-made structures of causal processes. Only humans see the structures and motions of machines as functional. The structures and movements of organisms, by contrast, are the results of self-organization (Buytendijk, 1948, pp.25-33). The concept of 'vital meaning' refers to the latter type of organization. *Living beings organize themselves in an meaningful way, while machines are meaningfully organized by humans* (Buytendijk, 1948, pp.25-33; 1965, pp.242-243). Hence, the function of machines is a function for humans; the function with regard to organisms also has the sense of: function for the expression of a vital meaning.

The two meanings of 'function' (function for humans and expressive function) become more clear when Buytendijk writes in terms of intentionality. In his comparisons between cybernetic machines and animal and human behaviour, he says with regard to machines: "De automaat *fingeert* het intentionele, want in de machinale nabootsing wordt ons *werkelijke gedrag* door een constructie, programma en z.g. 'strategie' *vooruit gedetermineerd*." (Buytendijk, 1965, p.236).³ With regard to living beings, he says: "Husserl spricht von "fungierenden Intentionalitäten", d.h. aber, daß der Leib als ein "corps connaissant", ein "corps sujet" (Merleau-Ponty) gedacht wird. (Buytendijk & Christan, 1963, p.97).⁴ As the function of machines is only a function for humans, so their intentionality is a man-made, constructed imitation of the functioning intentionality of organisms. For example, the motions of both a sewing-machine and a sewing woman can be said to have the function of sewing. In the case of the woman, the intention to sew - which is the meaning of her movements - has not been pre-programmed by herself or someone else, but she expresses this while she sews. The construction of a sewing-machine is a reconstruction of this intention and its realization.

Vital meaning and biological functionality

Biologists might say that the vital meaning of phenomena of life is their survival value. They see, for example, the way that plants root, or an animal flight from a predator as functional for their own survival or that of their species. In his reply to this evolutionary reading of 'vital meaning', the concept of 'function' as expressive function shows up again:

"De architectoniek van het lichaam is [door Braus - SL] gezien in zijn geschiktheid voor het optreden van de bewegingen, welk noodig zijn voor de soorttypische functionele verhouding met de buitenwereld. Toch is het een andere toepassing van het doelmatigheidsbeginsel, dan wij bij Darwin (en zijn navolgers)

³ The automaton *simulates* intentionality because in the mechanical imitation, our *real behaviour* has been *predetermined* by a construction, a programme and a so-called 'strategy'.

⁴ Husserl speaks of "functioning intentionalities", which means, however, that the body is seen as a "knowing body", a "subject body" (Merleau-Ponty).

aantreffen. De geschiktheid der structuren is hier namelijk niet betrokken op het doel: behoud van het individu en soort, maar op de logische realisering van bewegingswijzen." (Buytendijk, 1938a, p.196).⁵

Here Buytendijk explicitly distinguishes between function with regard to survival and function with regard to what he calls "the logical realization of ways of moving". We came across a similar phrase in Plessner's philosophy of life, namely the different forms of life as logical stages of life. As I have explained, "different forms of life" should not be read as evolutionarily developed forms. These forms are the successive manifestations of the essential characteristic of life, namely the open way of being of plants, the centric way of being of animals and the excentric way of human being (see chapter VII.2).

Buytendijk's explanation of the passage quoted above is completely in line with Plessner's philosophy of life. Almost in the same words as Plessner's, Buytendijk says that the structure (architecture) of animal bodies is an expression of their centric way of being that, according to an "immanent cause", develops itself to the human, excentric way of being (Buytendijk, 1938a, pp.196-197). What he calls "ways of moving" seems to refer to the specific way of being of organisms, especially animals, since they move by themselves. *Therefore, I read the foregoing quote as asserting that the vital meaning which animals express in their bodily and behavioural structures consists of the specific way of life of the animals involved.*

The expression of this meaning does not need to exclude the survival value of this expression. As said, the meaning and the survival value of animal bodily and behavioural structures can be seen as two different aspects of them. It is even plausible that the survival value is the condition for the very existence of meaningful bodily and behavioural structures.

Vital and personal meaning

Reasoning along the same line, human behaviour also has the meaning of being an expression of the human way of life. The first difference between the meaning of human and animal expressions is that only the former can be conscious and thematic because of the excentric way of human being. *The vital meaning expressed by plants and animals can only be expressed in their bodies and movements, but cannot become conscious and thematic.* This is the meaning of the above-mentioned 'functioning intentionality'. The intentionality or meaning of non-human phenomena of life only expresses itself while functioning. A sewing woman, by contrast, can also say that she sews and why she sews. This agrees with what I concluded in the foregoing chapter regarding animal experience, namely that they originate in as well as remain bound to the body.

⁵ The architecture of the body has been seen [by Braus - SL] from the point of view of its appropriateness to perform movements which are needed for a species-specific relation to the outer world. Yet this is a different application of the principle of functionality which we meet in Darwin (and his followers). Here the appropriateness of structures is not related to the goal of survival of the individual or species, but to the logical realization of ways of moving.

From the excentric way of human being also stems the second difference between the meaning of human expressions and those of non-human organisms. In line with Plessner, Buytendijk says that the meaning of only human expressions is personal, cultural and historical (Buytendijk, 1938a, p.53 and p.197). Even such a bodily phenomenon as breathing is not just a vitally meaningful phenomenon, but also has a personal and cultural meaning (Buytendijk, 1965, pp.306-320). For example, we recognize the way of breathing of our partner or a good friend.

The vital meaning of animal behaviour

So far I have written of the vital meaning of non-human organisms in general. Like Plessner, Buytendijk makes a distinction between plants and animals and between animals. In line with Plessner's philosophy of life, Buytendijk speaks of the open way of being of plants and the centric way of being of animals (Buytendijk, 1938a, pp.82-83). Buytendijk, however, makes this distinction more concrete. As explained in the previous chapter, the 'open way of being' of plants means that plants are inserted into their environment in an unmediated way. Animals, on the other hand, are inserted into their environment in a mediated way, i.e., mediated by a central self. Buytendijk illustrates this distinction with the example of being touched by and touching something. Plants and, for example, sea-anemones react in the same way to being touched by a glass rod and to touching it by themselves. Other animals, however, such as octopuses react differently to being touched by and to touching a glass rod. Only animals such as octopuses also have the capacity to perceive their environment actively, Buytendijk concludes. In terms of Plessner, only animals in this group are not only going along with their environment as plants do (being touched), but also move by themselves in their environment (touching). For designating this difference, Buytendijk says that plants and lower animals react to stimuli from their "milieu", and that higher animals shape and structure their own *Umwelt* by means of their perceptions and actions (Buytendijk, 1938a, pp.83-84 and pp.209-215; 1958/1972, p.53).⁶

Here Buytendijk explicitly restricts the *Umwelt* concept to animals. In the previous chapter I said that it is better to do this because only animals have specialized sensory and motor organs. Buytendijk offers an additional argument. He criticizes Von Uexküll for seeing his own *Umwelt* theory as a natural-scientific biological theory, which implies that the relationships between perceptions and actions are causal relationships. The above-mentioned animal perceptions and actions, however, are not separate elements of a causal chain, but they involve each other (Buytendijk, 1965, p.238). Particular perceptions already involve particular actions, and vice versa. Higher animals are actively looking for perceptions and perceive their environment as an *Umwelt* to act in. *Concerning higher animals, the vital meaning expresses itself in their bodily and behavioural actions as shaping and structuring*

⁶ Here lower animals are animals who react in the same way to being touched by and when touching their environment, which can be demonstrated empirically.

their own Umwelt. Lower animals and plants express a vital meaning in the way in which they react to stimuli from their environment.

Knowledge of the vital meaning of animal behaviour

The vital meaning of animal behaviour as expounded above is still quite abstract. Because Buytendijk was not a philosopher, he did not clarify his concepts extensively. Buytendijk was a man of practical research in animal psychology that aimed at gaining knowledge of the meaning of animal behaviour.

Von Uexküll would say that Buytendijk tried to get what he could not get. Von Uexküll considered his *Umwelt* theory a natural-scientific biological theory. He held that biology only studies subjects from the outside, treating the animal subject as the abstract origin of observable changes of behaviour. Psychology studies subjects from the inside, namely as an "I" that unites perceptions and actions (Von Uexküll, 1920, pp.98-100, pp.128-130 and p.165). Von Uexküll also called such an "I" the "*Gegenwelt*" or "inner world". With regard to animal psychology, Von Uexküll was ambiguous. On the one hand he said that animal psychology is impossible because we humans do not have access to the animal inner world, thereby ascribing human meanings to animal behaviour (Von Uexküll, 1920, p.99). On the other hand he said that "modern" (for his time) animal psychologists have developed methods to communicate directly with animals about their inner world (Von Uexküll, 1920, p.130). I do not know whether Buytendijk belongs to those "modern animal psychologists". Buytendijk also speaks of understanding phenomena of life from the inside (Buytendijk, 1938b, p.11). Yet he does not see animal psychology as directly communicating with animals about their inner world. *He sees animal psychology as carefully and precisely studying animal behaviour in its environment so that we can say how the Umwelt appears to an animal* (Buytendijk, 1958/1972, p.27).⁷ This careful and precise study of animal behaviour is also needed in order to prevent illegitimate anthropomorphism, Buytendijk feels. He admits that we cannot but use human concepts when interpreting animal behaviour, but we can prevent the ascription of meanings to animals that are obviously illegitimate such as when we speak of pets as persons (Buytendijk, 1938b, pp.19-20; 1958/1972, pp.25-26). In the following examples we will see how Buytendijk, by studying animal behaviour in its environment, gained knowledge of its meaning and prevented illegitimate anthropomorphism.

⁷ As far as I know, Buytendijk did not reply directly to objections to animal psychology such as that made by Von Uexküll. But in line with Buytendijk's philosophy about the distinction between animals and humans, I would say that animal psychology differs from human psychology in that we cannot directly communicate with animals about their inner world because the animal inner world is only expressed in their body and behaviour. See also Plessner who holds that animals, contrary to humans, do not have an "I" as distinguished from their bodily bound self.

2. Some examples of interpreting the meaning of animal behaviour

2.1. Habit formation in toads

The question that Buytendijk tried to answer in his experiments with toads is whether a changed reaction of these animals to a changed environment is a matter of adaptation or a matter of habit formation. Buytendijk conceives of adaptation as physical, chemical or mechanical processes. Habit formation is based on experiences of the changed environment (Buytendijk, 1920/1932I, pp.33-44).⁸

In the first experiments a toad was offered a small worm behind a window. When the worm was held still in one place, then the toad tried to seize it four times and then stopped. When the worm was moved repeatedly, then the toad continued to try to seize it (Buytendijk, 1920/1932II, p.123). These results are ambiguous. The experiment with the moving worm does not show any habit formation in toads. Despite the fact that the toad was unable to get the worm, which was moved repeatedly, he tried to seize it over and over again. It seems that seizing at food-like things by toads is a reflex, as we know is the case in frogs. The result of the experiment with a non-moving worm is remarkable, Buytendijk says. Why does the toad stop trying to seize the worm? Buytendijk's interpretation of this result is that the non-moving worm loses its meaning of food and, therefore, no longer gives rise to a reaction of the toad (Buytendijk, 1920/1932II, p.123). This experimental result seems to prove the toad's capacity to learn to change his behaviour based on experiences. In the beginning the toad perceived the worm as food, later as non-food. This change in perceptions expresses itself in the change of behaviour. However, this is in contradiction to the results of the experiment with a moving worm, namely that the toad does not learn that he cannot seize the worm.

Other experiments with toads solved this contradiction. In these experiments toads were offered a small, moving piece of black paper which looked like food to a toad. As expected, the toads always tried to seize the paper. When they did not succeed, they tried again, as they did in the above-mentioned experiment. When they succeeded and had eaten it, they stopped trying to seize the piece of paper. Only after having seized and eaten a good tasting insect, did they try again to seize the piece of paper (Buytendijk, 1920/1932II, p.123-124). From these experiments it appears that a single unsuccessful experience of eating a piece of paper is enough to stop the toad from trying to seize it. This shows a very fast learning process in toads which, however, is in contradiction to the experimental results that toads keep on trying to seize a food-like thing that they cannot get (Buytendijk, 1918, p.158-159;

⁸ I am not sure whether Buytendijk sees habit formation as a different kind of adaptation than through physical, chemical or mechanical processes. In the case of the toads, he relates their learning processes, which are based on experiences, to the toad's survival value (see below), but whether animal experiences and their expressions are always adaptive he does not say.

1920/1932II, p.124). Buytendijk explains this contradiction by referring to the natural life of toads. Toads hunt during the evening, so they have to collect their food within a short period of time. One experience of eating inedible or bad tasting insects stimulates toads to stop eating in that place and go and search for food somewhere else. Only one experience of eating a good tasting insect is also enough to stimulate the toads to try to seize food at that same place again. If they unsuccessfully seize at a food-like thing, they keep on trying in order to get the desired food (Buytendijk, 1918, p.159; Buytendijk, 1920/1932II, p.124). *Here we see that Buytendijk invokes the natural, species-specific way of life of toads in order to interpret different behaviours of toads that, at first sight, seem to be contradictory, namely behaviour that seems to be a reflex and behaviour which would indicate fast-learning in toads.*

This interpretation of the behaviour of toads shows that the vital meaning of their behaviour does not need to compete with the evolutionary function of that same behaviour. Buytendijk himself also explains the fast-learning process in toads by referring to its survival value (Buytendijk, 1920/1932II, p.124). *Buytendijk's interpretation of the toad's behaviour shows that evolutionarily functional behaviour is also an expression of the way in which toads are related to their environment, namely through meaningful perceptions of and actions in their Umwelt.*

According to Buytendijk, these and other experimental results with toads cannot possibly be explained by the reflex theory or any other theory that sees animal behaviour as a law-governed reaction to quantitative environmental stimuli (Plessner & Buytendijk, 1925, pp.72-74). The reactions of the toads to food or food-like things cannot be explained as causal effects of certain, perceived properties of these things, he says. Their reactions differ depending on former experiences such as the perception of something as food or non-food, or the experience of having eaten good or bad tasting food. I do not dare to say that these results cannot be explained causally. Just as Buytendijk invokes the natural way of life of toads to understand why toads under some circumstances learn faster than under other circumstances, his opponents may invoke these different circumstances for explaining the different behaviours of toads in a causal way. In the following chapter I will argue that the interpretative and causally explaining approach to animals are competitive, scientific paradigms that are based on different non-scientific points of view on animals.

2.2. Intelligent behaviour of chimpanzees

At the beginning of this century, Köhler did experiments with chimpanzees who used and made tools. He considered such achievements to be expressions of intelligence similar to human intelligence. In several of his writings, Buytendijk criticized this interpretation of the behaviour of the chimpanzees. I will give some examples of Köhler's experiments, his own interpretations of the results, and Buytendijk's criticism.

In a comparative experiment, chickens and chimpanzees were placed before a fence behind which lay food which was too far away to be grasped through the fence. The chickens behaved in a different way than the chimpanzees. The chickens walked around at random and got the food by chance, while the chimpanzees, after a short while, went directly around the fence to the food (Buytendijk, 1920/1932II, pp.217-219). In another experiment with a chimpanzee, a stick was laid before the same fence. After a while, the chimpanzee took the stick and pulled a banana through the fence by using the stick (Buytendijk, 1920/1932II, p.223). From these experiments Köhler concluded that chimpanzees, contrary to chickens, have insight into their situation, namely into relationships between things (the fence, the banana and their own place) and into the functional value of things (of the stick as a tool) (Buytendijk, 1920/1932II, p.223). Köhler defined 'intelligence' as "*Einsicht in Sachbezüge*" (insight into relationships between matters) or as "*schlichtes Erfassen von Bedeutungen*" (simple grasping of meanings) (Buytendijk, 1920/1932II, p.173).

Buytendijk considers Köhler's definition of 'intelligence' insufficiently specified. Using that definition, every animal act can be called intelligent, he says, even a simple reaction to stimulus or trial and error (Buytendijk, 1920/1932II, pp.176-178). Criticizing Köhler's interpretation of the chimpanzee's behaviour, Buytendijk discerns two kinds of intelligence: namely, practical and rational. He defines 'practical intelligence' as: "[Verwijzend naar] *verworven* gedrag, dat bepaald wordt door de waarneming van de zinsstructuur van een situatie, in samenhang met de beschikbare bewegingsmogelijkheden." (Buytendijk, 1958/1972, p.134).⁹ He defines 'rational intelligence' as: "... een rationeel-logisch, categorisch oordelend begrijpen van de concrete situatie als een *opgave* en de ontdekking van een oplossing,..." (Buytendijk, 1958/1972, p.123).¹⁰ The most important difference between these two types of intelligence is that practical intelligence is solely based on given perceptions and present bodily possibilities, while rational intelligence is also based on concepts and judgements. This is the reason why Buytendijk relates practical intelligence to acquired behaviour: a solution to a problem can only be found by acting bodily and then repeating the action in similar situations (Buytendijk, 1920/1932II, p.195). Rational intelligence, by contrast, is based on perception-independent concepts and judgements. These judgements involve possible solutions to a problem on the basis of such concepts (Buytendijk, 1918, pp.180-181; 1920/1932II, p.192; 1959/1972, pp.123-141). This is the sense of "understanding of a concrete situation as a task" (Buytendijk, 1920/1932II, pp.183-184). Köhler's definition of 'intelligence' is insufficiently specified because the presence or absence of consciously developed concepts, a capacity to abstract and the understanding of principles

⁹ [Referring to] *acquired* behaviour, which is determined by the perception of the structure of meaning of a situation in relation to the available possibilities of movement.

¹⁰ ... a rational-logical and categorical, judgmental understanding of a concrete situation as a *task* and the finding of a solution ...

do not matter. Buytendijk asserts that these things matter. They make up the core of his distinction between practical and rational intelligence. Here we clearly recognize Merleau-Ponty's distinction between removable and symbolic behavioural structures. Merleau-Ponty defines a removable behavioural structure as one that is based on perceived and learnt empirical relations. Symbolic behavioural structures, by contrast, presuppose the capacity to abstract from bodily perceived things, and to conceive of things in the world as physical and as meaningful (see chapter VI.3). Buytendijk's distinction between practical and rational intelligence is also in line with Plessner's distinction between the centric and excentric way of being which states that the former involves only the bodily-bound self, while the latter also involves a reflective "I" (see chapter VII.3 and 4). The capacity for reflection is similar to what Buytendijk calls the capacity of rational, i.e., perception-independent, insight into a situation.

The application of the two types of intelligence to the use of tools by chimpanzees implies that it is possible to interpret their use in two ways. First, one can see this use as an expression of practical intelligence. This means that the chimpanzee's behaviour is seen as the expression of an immediate understanding (through bodily perceptions and actions) of means-end relationships such as between his body, the stick and the banana behind the fence (Buytendijk, 1958/1972, p.129). This is similar to, for instance, our learning to drive a car by doing it rather than by reading a book about driving a car. Secondly, one can see the chimpanzee's use of tools as an expression of rational intelligence. This would imply that the chimpanzee objectively understands the above-mentioned relationships (Buytendijk, 1958/1972, p.128). In this case 'objective understanding' is understanding these relationships as causal and, therefore, effective means-end relationships. Seeing the same tool as a means to realize different ends, or seeing different materials as means to realize the same end are expressions of such an objective understanding (Buytendijk, 1958/1972, pp.137-138 and p.141). Buytendijk's conclusion is that it has not been demonstrated that the chimpanzee has a rational insight into his situation (Buytendijk, 1920/1932II, pp.183-184 and p.225).

Other experiments by Köhler did seem to provide a more conclusive answer to the question of whether or not chimpanzees have rational insight. In the first experiment a chimpanzee learnt to use a box in order to grasp a banana that was hanging too high. In the second experiment the banana was hanging higher still and a second box had been placed somewhere in the room. The chimpanzee took the second box and did a lot of things that appeared to be strange with it such as holding it beside the first one under the banana, placing it at a certain angle upon the first one, holding it high above his head, or placing both boxes where the banana was hanging in the previous experiment (Buytendijk, 1958/1972, pp.136-137). Köhler said that these behaviours are not that strange but stupid and good mistakes. For example, placing the second box at a certain angle upon the first one is a good mistake: the construction is higher, although less stable. On the other hand, placing both boxes where the banana was hanging in the first experiment is a stupid mistake. Köhler

considered both types of mistakes expressions of the intelligence of the chimpanzee. Even intelligent people make stupid mistakes, he said (Buytendijk, 1958/1972, p.136-137). Buytendijk also says that the chimpanzee did not act randomly but made stupid and good mistakes. But he considers this experiment not a proof that the chimpanzee has rational insight into a problematic situation; this experiment only proves that the chimpanzee is able to perceive spatial relationships in his environment very precisely. Similar to the case of the toads, Buytendijk explains this ability by referring to the species-specific way of life of chimpanzees (Buytendijk, 1958/1972, pp.126-127). Chimpanzees are living in trees where they jump from tree to tree to get their food. This explains their capacity for precise spatial perceptions. In their natural environment they also use sticks or other tools in order to get food that is too far away. As Buytendijk says with regard to toads, if a laboratory experiment appeals to the instincts of the animals, they will learn rapidly. This explains why the chimpanzees in the experiments quickly learn to use a stick or box in order to get a desired banana. However, precise spatial perception and fast learning are not necessarily the same thing as having rational insight into a situation. Concerning the experiments with the boxes, Buytendijk says: "Het komt mij voor, dat bij deze dieren de gewoontevorming spoedig het inzicht in de ding-relaties, dat in den beginne wel degelijk aanwezig is, achterhaalt." (Buytendijk, 1920/1932II, p.222)¹¹, and: "Het zogenaamde 'inzicht' is een lichamelijk (senso-motorisch) bepaalde verhouding die bij alle diersoorten, die zich aan nieuwe situaties aanpassen, in zekere mate optreedt." (Buytendijk, 1958/1972, p.137).¹² In these quotes Buytendijk warns against a possible identification of the apparent similarity between the behaviour of chimpanzees and humans with a similar type of insight. As is clear from both quotes, Buytendijk interprets the chimpanzee's behaviour not as an expression of rational but of practical intelligence. The chimpanzee's solution to the first problem of getting the banana by means of climbing onto one box seems to be based on what we call rational insight. Actually it is a solution found by bodily action, which he repeats in order to solve the second problem of getting the banana by means of two boxes: as in the first experiment, he tries to bring the second box closer to the banana by placing it on top of the first box or by holding it above his head under the banana. If the chimpanzee's solution was really based on rational insight into the relationships between his own body, the boxes and the banana, then he would have understood that he could not climb on a box which he holds above his head. This requires, Plessner would say, an excentric positionality, i.e., the capacity to see one's own bodily actions from another point of view than that of the bodily bound self. *Buytendijk concludes that the actions of the chimpanzees, though sometimes technically perfect, are*

¹¹ It seems to me that with these animals, habit formation rapidly overtakes insight into thing-relationships which surely is present initially.

¹² So-called 'insight' is a bodily (senso-motorially) determined relation, which to some degree occurs in all animal species which adapt themselves to new situations.

applications of acquired senso-motor experiences to the problematic situation (Buytendijk, 1920/1932II, p.200).

Does Buytendijk's interpretations of the chimpanzee's behaviour really prove that these are solely based on practical, bodily bound intelligence? According to Buytendijk himself, the study of the chimpanzee's behaviour alone is not enough to decide about this question, as is testified by the following quote:

"... alleen een alomvattende metafysische ontologische beschouwing van alle zijn vermag zich over de herkomst der zinvolle spontaniteit, der "wijsheid der natuur", uit te spreken.

Anders gezegd: *dierlijke intelligentie vormt geen psychologisch, maar een ontologisch probleem.*" (Buytendijk, 1938a, p.97).¹³

I understand this quote as follows: every organism can be said to be an intelligent problem-solver (see above). However, the observable problem-solving behaviour does not indicate anything about the way in which organisms solve problems; this belongs to the possibilities or impossibilities of the way of being of the organisms involved, which is an ontological question. *Thus, I conclude, the question of whether chimpanzees only have a practical intelligence or also a rational intelligence cannot be decided upon solely by the interpretation of their behaviour, but is an ontological question as well.* A precise and careful study of the chimpanzee's behaviour in their environment cannot, therefore, prove which interpretation is correct: Köhler's interpretation of the chimpanzee's behaviour as an expression of intelligence similar to human intelligence, or Buytendijk's interpretation of it as an expression of solely practical intelligence.

2.3. Animal and human pain

In the following example, the same issue shows up again. In his book *Over de pijn* [Pain] (1943/1957), Buytendijk searches for the meaning of animal and human pain. As we will see, his ontological view on animals and humans strongly influences his answer to this question.

Most biologists see survival as the meaning of pain. Painful feelings have the function of learning to avoid harmful situations, they say. Buytendijk asserts that this functional explanation does not explain pain. It only explains bodily phenomena such as the avoidance of harmful situations, not the associated pain. Many non-human organisms avoid harmful situations, while we do not say that they are in pain. Thus, the question of why we say that this functional behaviour is associated with pain is still unanswered (Buytendijk, 1943/1957, p.39). Neither biology nor psychology can answer this question, Buytendijk holds, because

¹³ ... only a all-comprehensive metaphysical ontological reflection upon all being is able to articulate the origin of meaningful spontaneity, the "wisdom of nature". In other words, *animal intelligence is not a psychological but an ontological problem.*

the foundation of pain has to be found at the level of the animal way of being (Buytendijk, 1943/1957, pp.35-41). Let us see how Buytendijk articulates the meaning of animal and human pain on this level.

Buytendijk distinguishes bodily pain from mental pain (Buytendijk, 1943/1957, pp.23-31). I will restrict myself as much as possible to bodily pain because this offers the best opportunity to discuss the ultimate question of the difference between animal and human bodily experiences.

Buytendijk sees bodily pain as a vital feeling of displeasure. The difference between bodily pain and other vital feelings of displeasure such as hunger and thirst is that bodily pain always implies that it hurts somewhere. Pain also forces the affected organisms to question and think because the relationship between pain and the reaction it provokes is problematic. Hunger urges, in an unproblematic way, eating. (Buytendijk, 1943/1957, pp.23-25). For example, although most humans and animals react to having their leg burnt by withdrawing it, the relationship between the pain of the leg and withdrawing it is problematic. Withdrawing does not stop the pain as eating satisfies hunger. This and other problematic aspects of pain force the affected organism to question and think. The fundamental characteristic of pain is that, in a specific way, it sets one's own body in opposition to self-consciousness, Buytendijk asserts (Buytendijk, 1943/1957, p.40). This specific way consists of "... een disharmonie, een onmachtig *staan tegenover* de scheiding van het ik en zijn lichamelijkheid ..." (Buytendijk, 1943/1957, p.28).¹⁴ Here Buytendijk summarizes the difference between pain and, for example, hunger. Hunger implies its cause and so urges the act of eating to satisfy itself. Although the pain of a burnt leg implies its cause, and automatically urges the act of withdrawing, this act does not stop the pain. *This is the essence of feelings of pain: the helplessness to stop it. I want the pain to go away from my leg, but it does not.*

Usually there is a unity between the "I" and its bodily bound self (its corporeality): we are not conscious of the warmth of our leg (see also "hidden health" as mentioned by Gadamer in chapter VI.2. When we feel pain, this unity has been broken down and makes pain a specific feeling of displeasure. Pain caused by a burn is not only a hot feeling, but is also the specific unpleasant feeling of the inability to get rid of the pain by some action. *Because feeling pain also involves this inability, Buytendijk articulates the aforementioned fundamental characteristic of pain as the unpleasant experience of a sharp contrast between a personal and a bodily way of being* (Buytendijk, 1943/1957, pp.158-161 and pp.192-193). A person in pain wants to but cannot chase away the pain in his own body.

This characteristic of pain raises a problem for speaking of animal pain. If animals do not have an "I", self-consciousness or personality, as Buytendijk holds, then they also are unable

¹⁴ ... a disharmony, a powerless *being opposed* to the separation of the I and its corporeality ...

to experience a disunity between their “I” and their bodily self. With regard to this problem, Buytendijk says:

“Naarmate het dier in zijn centrische positionaliteit meer geprononceerd verwerkelijkt is en tegenover de dingen en tegenover de eigen lichamelijke staat, treden verschijnselen op, die de grenzen van het op zelfbehoud en soortbehoud gerichte vitale functionele veld overschrijden.

Zulk een verschijnsel is - zoals ik indertijd heb trachten aan te tonen - het spel, zulk een verschijnsel is ook het pijngevoel.” (Buytendijk, 1943/1957, p.122).¹⁵

Here Buytendijk seems to assert that animals do have an “I” (“transgress the limits of the vital functional field”). Hence, it would be possible to conceive of animal pain as similar to human pain. *Yet Buytendijk makes a distinction here. Based on this distinction, I will argue that suffering animals touch rather than transgress the boundary with an excentric positionality.*

Buytendijk explains the existence of animal pain in light of their centric positionality. As we saw in the previous chapter, the difference between the open positionality of plants and the centric positionality of animals is that animals are more autonomous in relation to their environment. Plants go along with their environment; animals position themselves in relation to their environment. To take up a position in relation to the environment presupposes the possibility of a disharmony between self and environment. The reverse of the autonomy of animals, however, is the resistance of their environment regarding the fulfilment of their needs (Buytendijk, 1943/1957, p.183). The same is true with regard to the body. The development of a self implies taking up a position in relation to one’s body, and so the possibility of meeting resistance of it. Animal pain is the realization of this ontologically given possibility.

The development of a self is not a matter of all or nothing. In the last quoted passage, Buytendijk writes about a more or less distinctive realization of a centric positionality. This is the same as a more or less developed self or, as Buytendijk also says, the clarity of animal consciousness. This is the degree to which animals are conscious of their *Umwelt* and *Leib*. The more clear their consciousness is, the more clear an “I” has been developed as distinct from a bodily self (Buytendijk, 1943/1957, pp.84-86). Translated into terms of animal pain, this means that animal pain is a matter of degree. The one extreme is the absence of a self and therefore the absence of pain; the other extreme is the presence of a reflective “I” and therefore consciousness of and opposition to the vital feeling of pain. In between there is a degree of coincidence of the animal self with its bodily experiences and therefore a degree

¹⁵ The more the animal has a distinctive realization of his centric positionality, and the more it places itself in front of the things and its own corporeality, phenomena occur which transgress the limits of the vital functional field that is directed at self-preservation and preservation of the species. As I have once tried to demonstrate, play is such a phenomenon. The feeling of pain is also such a phenomenon.

of the vital feeling of pain. The question regarding animal pain is whether the degree of animal pain can reach the extreme of a reflective "I" that is conscious of pain.

Buytendijk says that animal pain can be assessed by studying their reactions to, for instance, an injury (Buytendijk, 1943/1957, p.86 and p.88). Let us have a closer look at the way in which Buytendijk assesses the two extremes of the degree of animal pain, namely the absence of pain and the consciousness of pain. The question regarding the former limit is of whether a reaction to an injury is a non-conscious reflex or an expression of pain. Usually we see flight and a motorial disorganization as expressions of pain. Buytendijk says that these behaviours are not always associated with pain. Many lower animals and even brainless animals perform flight movements and motorial disorganizations. In these cases we do not see these reactions as expressions of pain but as non-conscious reflexes, he says without further argument (Buytendijk, 1943/1957, pp.88-90). The aforementioned example of the difference between being touched and touching might have provided Buytendijk with some arguments for this statement. If the animals involved do not react differently to being touched and touching by themselves, then they are not a self and so their reactions to an injury are solely behavioural reactions and not also expressions of pain. Or Buytendijk could have invented a similar test for deciding whether their reactions to an injury differ from those of higher animals, which can be seen as decisive for the question of whether or not these are also an expression of pain.

Let us now have a look at the other limit, the boundary between animal and human pain. Buytendijk assumes that a dog's care for an affected part of the body is an expression of pain. The question he raises is whether the affected part of the dog's body is in the same way opposed to the dog's individual centre as in the case of humans. His answer to this question is: "Het waarneembare gedrag kan hierop geen antwoord geven."¹⁶ (Buytendijk, 1943/1957, p.98). Both humans and animals take care of an injured leg. This does not prove, however, that the dog's way of being is excentric, i.e., that the dog 'objectively' experiences his injured and painful leg (Buytendijk, 1943/1957, p.99). This is the same argument with regard to the question of whether the intelligence of chimpanzees is practical or rational. There Buytendijk said that it was an ontological question as well. Given his interpretations of the chimpanzee's behaviour, he seemed to say that chimpanzees, because of their centric positionality, do not possess rational intelligence. With regard to the degree of animal pain, Buytendijk does not seem to restrict this by the centric way of being of animals. As quoted before, he says that animal pain is a phenomenon that transgresses the boundary of the vital field. However, if we look at what Buytendijk says about the other, human side of this boundary, then there seems to be a distinction between animal and human pain.

As discussed earlier, Buytendijk considers the general meaning of pain to be the helplessness to chase away bodily felt pain. It is this experience of helplessness that leads to

¹⁶ The observable behaviour cannot answer this question.

questioning and thinking which influence the reaction to pain. Buytendijk also says that the experience of pain calls for a restoration of the disharmony between the "I" and the bodily self (Buytendijk, 1943/1957, pp.183-189). Humans react to pain in a personal way; they do this, for example, by taking pain 'like a man', or by resigning themselves to pain. Character formation is one of the meanings of pain (Buytendijk, 1943/1957, pp.170-182). This is in line with Plessner's view that humans need to restore the broken unity between their "I" and their own *Körperleib* in a personal, cultural and historical way. A specific human reaction to pain is weeping. Buytendijk considers weeping an expression of complete helplessness, as admitting that there is nothing left one can do to handle pain; giving up one's personality. He adds that weeping is still a personal act, and that humans can give up their personality is a testimony to their having a personality. When pain is so bad it causes a person to weep, it has forced him to the boundary of his way of being where nothing can be done any more (Buytendijk, 1943/1957, p.169). So, unbearable human pain is a border-line experience without, however, transgressing the boundary between an excentric and a centric positionality.

Let us now return to the animal side of the boundary. Undoubtedly animals experience the pain of a disharmony between their self and their painful body, Buytendijk admits. He adds, however, that this experience does not lead to questioning and thinking which influence their reaction to it, as it does in humans. In animals the experience of pain is a compulsive occurrence and immanent to life. Unlike human pain, animal pain is not affected by a source of freedom that transcends life; animals just accept pain (Buytendijk, 1943/1957, p.184). This is the reason why animals do not weep. They passively surrender themselves to long-lasting, heavy pain. Animals suffer impersonally (Buytendijk, 1943/1957, p.168). *I understand these remarks as saying that animal pain does not have a personal meaning because animals do not reflect upon their pain.* Even heavy pain in animals with a clear consciousness does not make these animals into persons, as humans do not really lose their personality when in unbearable pain. I see suffering by animals as a foreshadow of the next stage in life, namely that of the emancipation of a personal "I" from its bodily self. The absence of a specific reaction to pain (weeping) and Buytendijk's interpretation of it, can support this view.

3. Conclusions and comments with regard to an interpretative animal psychology

The elaboration of the three examples of Buytendijk's interpretation of animal expressions results in a few conclusions regarding an interpretative study of animals.

The first conclusion concerns the prominent role of Buytendijk's ontological view on animals. As is clear from the examples, Plessner's philosophy of life functions as a framework for Buytendijk's interpretation of animal behaviour (Strasser, 1962, p.254 and p.285; Thinès, 1977, p.18). Buytendijk's first ontological presupposition is that at least some

animal behaviour is an expression of experiences rather than a mere effect of internal or external causes. His second ontological presupposition is that animal experience differs from human experience.

Ontological presuppositions are not popular in science, but in the next chapter I will argue that any science is based on ontological or otherwise philosophical points of view regarding its subject matter. Most animal welfare science is based on a view that is the same as Buytendijk's first ontological presupposition: namely, that animals are experiencing beings. Wiepkema and Toates, for example, assume that animal behaviour, contrary to the motions of machines, is regulated by emotions. Buytendijk's second ontological presupposition that animal experience differs from human experience is not common in animal behaviour science. On the contrary, the widely used argument from analogy states that animal experiences are similar to human experiences. Especially Buytendijk's analysis of the meaning of animal and human pain, however, has provided arguments for saying the opposite: namely, that animal experiences are not personal like human experiences.

The second conclusion is that Buytendijk can indeed be seen as giving concrete body to Plessner's philosophy. Whether or not one agrees with the alleged difference between human and animal experiences, Buytendijk has made more concrete Plessner's view on animal experiences. I have explained the latter view as stating that animals have bodily, here-and-now experiences; that they only experience their *Umwelt* and *Leib* from the point of view of their body. Buytendijk's application of this view to animal experience consists of concrete interpretations of animal behaviour in light of this view. The example of the intelligent behaviour of chimpanzees (as expression of perceptions and bodily actions) has shown the possibility of such an interpretative investigation of bodily animal experiences.

Hermeneutical scientists understand human experiences, expressions and meanings as personal, cultural and historical. Given the difference between humans and animals, animal experiences cannot be understood as such, they say. My third conclusion concerns the species-specific way of animal life within which Buytendijk interprets animal behaviour. In the examples of habit formation in toads and the use of tools by chimpanzees, Buytendijk's interpretations of the species-specific behaviour of these animals in their natural environment seemed to function as a standard for his interpretations of their behaviour in experiments. *In the next chapter I will defend my third conclusion from the discussion of Buytendijk's interpretative research, namely that the species-specific way of animal life is comparable to the personal, cultural and historical context within which we understand other humans.*

Nevertheless I agree with classical hermeneuticists that animal experiences are not personal. As said after having discussed Merleau-Ponty, the designation "impersonal" expresses that the meaning of animal behaviour is close to that of human behaviour. Unlike the vital meaning expressed by plants, the meaning of animal behaviour includes experiences. This meaning can be more or less close to that of human behaviour, depending on the development of their self or consciousness. Buytendijk's analysis of the meaning of animal

and human pain has shown that the degree of animal pain runs from the almost absence of it to the almost presence of personal pain, but without becoming personal pain.

The fourth conclusion is that the interpretation of animal behaviour does not need to compete with natural-scientific explanations of it. Whether they compete or not, depends on the type of natural-scientific explanation and its claims. For example, an evolutionary explanation of animal pain behaviour and an interpretation of the meaning of this behaviour are not mutually exclusive, as we saw with the examples of habit formation in toads and animal pain. Other natural-scientific explanations such as those given by the reflex theory seem to be based on ontological points of view that exclude the possibility of seeing animal behaviour as meaningful behaviour. I will discuss this question of the different relationships between an interpretative and natural-scientific approaches more fully in the next chapter.

The final conclusion concerns Buytendijk's method of research. He says that we can know the meaning of animal behaviour by carefully studying their behaviour in its environment. The methodology of such careful study is not clear at all. Buytendijk clearly considers it necessary to interpret animal behaviour in its environment rather than only explain it causally or functionally. He does not say, however, how such interpretations can be realized and confirmed or falsified. With regard to pain in higher animals, he once referred to a method of understanding similar to the one mentioned by Dilthey, namely reliving experiences of others as if these were our own. We readily accept the existence of pain in higher animals, he says, because we are able to imitate their pain behaviour, because we see their experiences as recognizable and understandable (Buytendijk, 1943/1957, p.91). With regard to pain feelings in lower animals, he just says that we do not see the behaviour of these animals as expressions of pain. With regard to pain feelings of octopuses, he says: "Op grond van mijn persoonlijke ervaring meen ik, dat de functionele ontwikkelingsgraad van dit weekdier minstens even hoog is als die van de hoogst ontwikkelde koudbloedige gewervelde dieren. Pijngevoel is dan ook met grote waarschijnlijkheid aanwezig." (Buytendijk, 1943/1957, p.91).¹⁷ The interpretation of animal behaviour seems to be a personal matter rather than carefully studied behaviour. This leaves the door open to illegitimate anthropomorphism and other incorrect interpretations of animals, as is done "on animal protection calendars and by fairy-tale tellers." (Plessner). I think that animal psychology should not be based on personal experience with animals, but, like any science, on intersubjectively agreed methods. In the next chapter I will give my reconstruction of the method as used by Buytendijk, which can serve as a proposal for, paraphrasing Plessner, such an intersubjective discipline for interpretation.

¹⁷ On the basis of personal experience, I think that the degree of functional development of this mollusc is at least as high as that of the most highly developed cold-blooded vertebrate animals. So it is highly probable that the feeling of pain is present.

CHAPTER IX

ANIMAL PSYCHOLOGY: THE THIRD WAY BETWEEN THE HERMENEUTIC AND THE NATURAL-SCIENTIFIC APPROACHES

In Intermediate Reflections 1, I concluded that natural-scientific theories of animal welfare cannot do justice to the subjective character of animal experiences. In order to find an approach that can comprehend this character, I started to explore the philosophical hermeneuticists Dilthey and Gadamer, each of whom developed a concept of subjective experience. The specific question was, what did they say about animal experience?: I concluded that they (with the exclusion of Dilthey in his early period) started with specific human experience and took this as the basis of a philosophical concept of experience in general; then they founded experience on a characteristic that happens to be typical human, for instance language. Their implicit or explicit conclusion was mostly that animals do not have the capacity to have experiences. I also concluded that it is unfruitful to try to derive from human experience a philosophical and theoretical concept of animal experience. As classical hermeneuticists correctly say, human experience is always related to specific human characteristics such as language, history or culture (see Intermediate Reflections 2).

Still searching for a philosophically sound concept of animal experience, I tried to find a third way somewhere between human experience and the complete lack of experience. I found this way in Merleau-Ponty, Plessner and Buytendijk. Merleau-Ponty provided a philosophy of the human body as an experiencing body. It turned out that Plessner went further, and with better results, than Merleau-Ponty by developing a philosophy of the animal body as an experiencing body. Buytendijk put the philosophies of Merleau-Ponty and Plessner to more concrete use in his interpretations of animal behaviour. There is a wide gap, however, between Plessner's philosophical concept of animal experience and Buytendijk's interpretations of animal behaviour as expressions of it. This gap concerns a method for interpretative study of animal behaviour which is absent in the writings of Buytendijk.

In this chapter I will first review the philosophy of psychology of the Utrecht School, within which Buytendijk worked (IX.1); then I will elaborate a methodology for the interpretation of animal behaviour by discussing four methodical issues within the Utrecht School and the hermeneutical sciences (IX.2); in the following section the different kinds of relations between interpretative and natural-scientific studies of animal behaviour will be sketched (IX.3), and finally I will formulate a few principles of an interpretative approach to animal welfare (IX.4).

1. The Utrecht School in Psychology

The ideas of the Utrecht School in Psychology serve to introduce a methodology for an interpretative study of animals. The members of this school had the same criticism of natural-scientific psychology as I have of natural-scientific theories of animal welfare, namely that such scientific approaches cannot understand humans as subjects. The designation 'Utrecht School' refers to the scientists working in the Psychology Department of the University of Utrecht between 1947 and the beginning of the 1960s. These scientists had a special view on psychology as a science. Their main, common tenet seems to be a negative one, namely the rejection of natural-scientific views about the human psyche. Their positive point of view is less clear but is mostly referred to as a phenomenological view on the human psyche. As we will see, this view implies an ontological view on humans. One can say that the view of the Utrecht School on humans, like Plessner's view on living beings, is a phenomenologically gained ontological view. In 1947 Buytendijk became head of the Department of Psychology. He did not get this job because of his eminent work in human psychology (which he had not done at all), but because of his philosophical view on the human and animal psyche which he had developed before. In this section I will expound the ideas of the Utrecht School with regard to human psychology. In the next section, more will be said about animal psychology in line with these ideas.

Ontological and ethical foundations of human psychology

Johannes Linschoten, one of the members of the Utrecht School, considered the question of the character of humans - and especially of the human psyche - to be the general question of any sort of psychology. As a member of the Utrecht School, he rejected natural-scientific approaches to humans within psychology, because these did not do justice to the subjectivity of humans (Linschoten, 1953, pp.252-253). *Doing justice to humans as the foundation of psychology has an ontological and ethical meaning within the psychology of the Utrecht School* (Dehue, 1990, pp.80-82). Ontologically it means that the essence, or way of being, of humans should be the subject matter of psychology. The psychologists of the Utrecht School considered meaningfully being in the world the essence of human being (see below). Denying that humans are meaningfully related to the world, as natural-scientific psychology does, is not solely ignoring this essence but is considered ethically unacceptable too by the psychologists of the Utrecht School.

Worldly humans and human worlds

Referring to Husserl, the members of the Utrecht School conceived of the human way of being as intentionally related to the world. Human consciousness is not an empty consciousness like in Descartes, Husserl said. It always has a content, namely being directed at the world (the intentionality of human consciousness). *In line with Husserl, the psychologists of the Utrecht School said that it is possible to know a person by understanding*

the world as experienced by him, i.e., by understanding a person's situation (Kouwer and Linschoten, 1966, pp.87-89; Linschoten, 1963, p.244). These psychologists rather spoke of experiences (*Erlebnisse*) than consciousness.

In the philosophy of the Utrecht School, the concepts of person and world are interrelated. Persons (individual humans) are living in the world through intentional, meaningful relations to it. Because of these relationships, persons are meaningful subjects and the world is a meaningful world (Linschoten, 1953, p.247). This corresponds with Gadamer's view that the undetermined world becomes meaningful thanks to human understanding of it (see chapter V.I).

Like Merleau-Ponty, the psychologists of the Utrecht School emphasized the bodily human way of being in the world (Kouwer and Linschoten, 1966, p.94; Linschoten, 1953, p.244; 1962, pp.184-185; 1963, pp.119-120). They saw the intentional relations of humans to the world as primarily bodily relations. Therefore the empirical focus of their phenomenological understanding was the bodily appearance of humans. *Despite the emphasis on the human body, they said that the meanings that humans express are always cultural-historical. We can understand such meanings by virtue of communication within and about a common cultural-historical situation* (Linschoten, 1953, p.245). This is in accordance with the view of the discussed hermeneuticists Dilthey and Gadamer, who also saw human expressions as cultural and historical.

Method of interpretative psychology

Like Gadamer, the psychologists of the Utrecht School also rejected a strict methodology in the sense of techniques and rules for acquiring true knowledge. The methods they used in their own research were very implicit, unclear and personal. Buytendijk speaks of his method of research in terms of "participating with love in the existence of the other person" (Dehue, 1990, p.80). At the end of the previous chapter, I already cited a statement by Buytendijk in which he refers to personal elements in his research. However unclear, it seems to be a common view of the Utrecht School that understanding another person is a matter of a meeting between two persons, namely between the researcher and his 'object'. Linschoten articulated this process of understanding by saying that phenomenological psychology does not aim at explanations but explications of persons in their situation. *This means that a phenomenological psychology is oriented to understanding a person as the centre of meanings in his world, instead of deriving from general explanatory laws how particular humans behave.* Like hermeneuticists, Linschoten called this process of understanding "moving within a hermeneutical circle". This way of understanding goes to and fro between assumed meanings of the world and particular meanings of a person in a situation (Linschoten, 1953, pp.252). This process of understanding will be further explained in the next section.

I already mentioned some similarities between the philosophical ideas of the Utrecht School and those of hermeneutics. The undetermined world becomes a meaningful situation thanks to persons living in it. Psychology does not aim at explaining persons but at

understanding persons as centres of a meaningful situation that is always cultural and historical. This understanding can be gained by communication within and about a common cultural-historical context. By systematically discussing four methodical issues that are central in the Utrecht School as well as in hermeneutics, I will now elaborate a method for understanding animals.

2. Towards a method for understanding animals

As said, Buytendijk was not very clear about the method he used. From the examples of his interpretations of animal behaviour, only the difference between his interpretative approach and the causal or functional, natural-scientific method has become clear. The difference between Buytendijk's method and the *geisteswissenschaftliche* has not yet become clear. In this section I will discuss this difference with regard to four methodical issues within hermeneutic and phenomenological understanding.

Subject matter of interpretation

This issue concerns the philosophical, whether ontological or otherwise, presupposition of interpretative studies with regard to their subject matter. I hold that any science is based on such a presupposition. Causal-analytical sciences, for example, presuppose that their subject matter is governed by causal laws. Sciences that claim to say something about human or animal experiences presuppose that humans and animals are experiencing beings. Such a presupposition raises the question of the relation between a philosophical view on animals and the science of animal psychology.

In the beginning of the 1960s, when he dissociated himself from the Utrecht School, Linschoten criticized the view that the ontology of the Utrecht School with regard to humans should be the basis of psychology. Natural-scientific and interpretative psychology have different aspects of humans as their subject matter, he said. Neither of them may claim that the essence of humans is their subject matter. Any philosophy or scientific approach to humans is only about one aspect of humans, and not about others. He concluded that the phenomenology of the Utrecht School cannot prescribe a concept of humans to psychology (Linschoten, 1962, pp.182-183; 1963). This conclusion is correct insofar as it says that a phenomenological concept of humans (in the above-mentioned sense) does not need to form the basis of all sorts of psychological disciplines. Neuropsychological disciplines, for example, which do not claim to indicate something about human experience, can see and study humans as information processing systems. Only if a psychological discipline claims to indicate something about human experience, views on humans as experiencing beings (such as the phenomenological or hermeneutical) are inevitable. *Likewise, an interpretative animal psychology cannot abstract from a concept of animals as meaningfully experiencing*

the world. Its methodology should do justice to this way of being, so that it really can indicate something about the meaning of animal behaviour.

As I said in Intermediate Reflections 2, classical hermeneuticists reject animals and all non-human nature as not proper subject matter of the *Geisteswissenschaften*. Non-human nature is only the subject matter of these sciences insofar as humans give meaning to it, for example the economical meaning of farm animals, or the aesthetical meaning of landscapes. Only the early Dilthey does not restrict the subject matter of hermeneutics to human expressions. He does not exclude animal expressions of experiences from the *Geisteswissenschaften*, although these experiences are not personal, cultural and historical (see chapter IV.2). Buytendijk would say that the meaning of animal experiences is a vital one. Contrary to classical hermeneuticists, Buytendijk distinguishes between in itself meaningless non-living nature, living nature that bears a meaning, and humans who give meaning. On the basis of this distinction, he also discerns three types of science: not only natural sciences and *Geisteswissenschaften*, but also life sciences. The subject matter of the life sciences is the vital meaning expressed by living beings. In the foregoing chapter, I have argued that the designation “impersonal meaning” for animal behaviour is a specific case of the vital meaning of life. Hence, animal psychology belongs to the life sciences. *Animal psychology differs from interpretative human psychology in that the meaning it aims to understand is not also reflective and, therefore, not personal, cultural and historical.* By discussing three other methodical issues, we will see what the consequences are of this difference in subject matter.

Context of understanding

According to the classical view on the *Geisteswissenschaften*, we can understand the meaning of human expressions within a personal, cultural and historical context that constitutes this meaning (see the later Dilthey and Gadamer’s view). I will argue that the concept of a species-specific animal *Umwelt*, as mentioned by Merleau-Ponty, Plessner and Buytendijk, offers a comparable context for understanding animal expressions.

The concept of ‘*Umwelt*’ has three senses: the world of animals as compared to the human world, the species-specific animal *Umwelt* and the *Umwelt* of individual animals. The concepts of the human ‘world’ (*Welt*) and animal ‘*Umwelt*’ have a very specific, philosophical sense. The concept ‘world’ refers to the undetermined world to which humans are open. Only humans are free to shape this world into their own personal, cultural and historical world. In order to express the idea that animals lack this openness to the world, philosophers speak of the animal *Umwelt*. In a certain sense one can speak of an undetermined world of animals, which becomes meaningful by and for animals living in it. But, and this is the second sense of ‘*Umwelt*’, animals are not free to shape their own meaningful world; they just shape this in a species-specific way by living in it.

Sometimes ethologists also use the concept of a species-specific animal *Umwelt* in the sense of Von Uexküll’s. In the course of evolution, animal species have become adapted to

their environment, so the form of the body and the behaviour of an animal species cannot be seen independent of its environment, ethologists hold. Like animal bodies and behaviours, animal environments are species-specific. These ethologists conceive of the species-specific animal *Umwelt* in which an animal species fits like a key in a lock, as a portion of the total physical environment. They call this their “ecological niche”.

Merleau-Ponty, Plessner and Buytendijk, however, relate ‘species-specific’ to the meaning of the animal *Umwelt*. This concerns a different aspect from the physical environment to which an animal species is adapted. It concerns the environment as meaningfully perceived and acted in by animals. It seems plausible that such meanings have co-evolved with the bodily and behavioural forms of animals, especially the meanings as bound to these forms. For example, the precise spatial perceptions of and actions in the environment by chimpanzees are certainly evolutionarily developed capacities. It is plausible that the meaning of these perceptions and actions has co-evolved with bodily capacities. One may say that the evolutionary development of the chimpanzees’ eyes and behaviour has gone hand in hand with the development of the meaning of their behaviour. Such a co-evolution of bodily and behavioural forms and their meanings is similar to Merleau-Ponty’s view that the ontogenetic development of organisms is also the unfolding of an *Umwelt* (see chapter VI.3). This co-evolution implies that the meanings of animal expressions can be grouped into evolutionarily changing species, just as the meaning of human expressions can be clustered into historically changing cultures. *Hence, from a methodical angle, the species-specific way of animal life occupies the same place as the cultural-historical way of human life. Both are contexts of understanding between the ontological way of being and the meaning of particular expressions of an individual in a particular environment.*

This leads me to the last sense of ‘*Umwelt*’, namely the *Umwelt* of an individual animal. Not only during their phylogenetic and ontogenetic development but during their whole life the meaning of the animal *Umwelt* is changing, for instance through learning processes, or when brought into artificial circumstances. Just as a person’s situation is an individuation of a cultural and historical situation, the *Umwelt* of an individual animal is a particularization of a species-specific *Umwelt*. Before discussing how the species-specific animal *Umwelt* can function in the method employed to interpret particular animal behaviour, the meaning of ‘species-specificity’ as used in contemporary debates about animals has to be analyzed.

The standard of species-specificity

In contemporary debates about animal welfare and animal ethics, one uses the concept of ‘species-specificity’ as a standard for animal welfare (see also the next chapter). It is not clear, however, what the content of this standard is.

Van den Bos distinguishes the scientific meaning of ‘species-specific’ from its common-sense and ethical meaning. The scientific meaning originates from Lorenz and Tinbergen, for whom ‘species-specific’ refers to genetically fixed behavioural patterns that are specific of a species. In modern ethology, ‘species-specific behaviour’ also refers to learnt and

flexible (in the sense of dependent on the environment) behaviour that is typical of a species (Van den Bos, 1999). Summarizing the modern concept, I conclude that species-specific animal behaviour, whether innate or learnt, is seen as common to all animals of a species in a particular environment. This modern scientific concept of 'species-specific' raises the problem of the designation of behaviour as species-specific.¹ For example, some farm mink react to their housing and treatment through restless behaviour, others through quiet behaviour. Which form of behaviour do we have to designate as species-specific? One of these types, or both, or none at all? Many ethologists solve problems such as these by appealing to the common-sense and ethical meaning.

In societal-ethical debates about animals, 'species-specificity' has two different meanings: the behaviour of animals of a species in their natural environment, and the expression of the species-specific nature of animals. The first meaning runs into many problems. What is the natural environment of an animal species, given the changing environments on earth and the omnipresence of human influences? And, why should animal behaviour which occurs in an artificial environment but not in a natural environment, be less species-specific than learnt and changing behaviour in a changing natural environment?² An example of such problems is Van Hooff's attempt to define animal welfare in terms of natural and adaptive behaviour. First he defines natural behaviour as behaviour in non-artificial circumstances (Van Hooff, 1974, p.2). One of the categories of behaviour that deviates from natural, adaptive behaviour is unnatural, maladaptive behaviour. An example with which he illustrates this category is animal sickness - even in natural circumstances (Van Hooff, 1974, p.7). Sickness might be maladaptive, but why should it also be considered unnatural, especially given Van Hooff's own definition of natural behaviour as behaviour in natural circumstances? One can say that sickness occurring in natural circumstances is natural as well.

The problem with both the scientific and this first common-sense meaning of 'species-specific' is that they claim to give a purely descriptive definition to it in terms of particular animal behaviour. They suggest that observed animal behaviour can simply be compared to this behaviour in order to say whether it is species-specific or not. However, especially when species-specificity is used as a standard, for instance for animal welfare, value judgements creep in. Many people surely consider sickness a situation of poor welfare, but not only because the behaviour of a sick animal should deviate from some standard. They evaluate sickness as bad (see also Tannenbaum, 1991).

¹ The fulfilment of species-specific needs as articulation of 'species-specificity' raises the same problem, besides the problem of how to know the species-specific needs of animals independently of their behaviour (see chapter X.2).

² Also Buytendijk seems to suggest that the species-specific way of animal life is their way of life in their natural environment. He refers to the natural way of life of chimpanzees and toads in order to understand the meaning of their behaviour in experiments. Elsewhere, however, he rejects this equation of species-specific with natural (Buytendijk, 1938b, p.160).

The second common-sense and ethical meaning of 'species-specific' does not claim to be purely descriptive. Animal ethicists who use the phrase "the species-specific nature of animals" conceive of a species similar to the way in which, for example, laypeople classify the animal kingdom into species. This meaning of 'species-specific' has its origin in debates about animal biotechnology. It has been put forward as an answer to the question of which technologically changed behaviour or property is still acceptable. As Thompson summarizes this meaning, it is a "fine appreciation of the sheepness of the sheep on the pigness of the pig" (Thompson, 1997, p.98). Below we will see that I also use 'species-specificity' in a non-descriptive sense, but not as a given, normative standard. I use 'species-specificity' as an assumed context within which we can interpret particular animal expressions.

The hermeneutical circle

An assumed context of interpretation makes the process of understanding particular animal expressions into a process with two unknown variables. Both the meaning of particular expressions and the context within which this meaning can be understood are unknown. Interpretative sciences aim at knowledge of both unknown variables. Clifford Geertz, a contemporary cultural anthropologist, calls this "our double task":

"... setting down the meaning particular social actions have for the actors whose actions they are, and stating, as explicitly as we can manage, what the knowledge thus attained demonstrates about the society in which it is found and, beyond that, about social life as such." (Geertz, 1973, p.27).

Hermeneuticists and the phenomenologists of the Utrecht School designate the method by which this double task can be fulfilled as the "hermeneutical circle": a going to and fro between the assumed meaning of particular expressions and its assumed personal, cultural and historical context (see Gadamer, 1959/1986, and Linschoten in the foregoing section). First I will explain this concept as used within the interpretative humanities; then I will apply this method of understanding to animals.

Geertz explains the difference between this method and that of the natural sciences by means of the natural-scientific concepts 'description' and 'explanation' and the interpretative concepts 'thick description' and 'specification' (Geertz, 1973, p.27). Natural scientists move between descriptions and explanations by trying to subsume particular observations under general, explanatory laws which are already known or have to be developed. Particular observations are given data. Natural scientists consider these data as explained if they can see them as logically deducible, particular cases of general, theoretical laws (the "covering law model" of science). Within the interpretative sciences, by contrast, the relationship between particular cases and a 'theory' is different. Particular cases are specifications, "theoretical peculiarities", Geertz says (Geertz, 1973, p.26) (A theory within the interpretative sciences is the scientist's knowledge of culture in general, different cultures, or a particular culture.) The to-be-understood meaning of particular human expressions is not

a logically deducible, particular case of some general cultural system. This meaning itself also makes up and, therefore, reveals the culture within which it has been generated; this is the sense of "peculiarities" as opposed to particularities.

Particular human expressions are the only key to attain knowledge of the two aforementioned unknown variables, namely the meaning of these expressions and the context within which this meaning is intelligible. For example, both the meaning of expressions of Dutch persons and the Dutch culture can only be known through interpretation of particular expressions of Dutch persons. The idea of the 'hermeneutical circle' refers to the process of simultaneously getting knowledge of particular expressions and of the context. When starting to try to understand the meaning of a particular expression, both its meaning and its context must be assumed. One can test both assumptions by looking for and trying to understand other particular expressions as specifications of that same context ("thick descriptions"). If the meaning of a particular expression understood in this way does not fit into this context, it is possible to adjust either the assumed meaning or their context. This process goes on until they fit, i.e., until various, particular expressions are intelligible within a certain culture that they make up and by which they are generated as well.

Let us now see whether this method of understanding can also be applied to animals. *I will argue that the interpretation of animal behaviour can be conceived in the same way, that understanding the meaning of particular animal expressions is simultaneously understanding their species-specific Umwelt.* Let me take Buytendijk's interpretations of the behaviour of toads as an example in order to argue this point.

At first sight, the observations in the first experiment were contradictory: the toads stopped reacting to non-moving, food-like things but kept on trying to seize moving, food-like things. These observations are contradictory in light of Buytendijk's assumptions. He assumed that non-moving as well as moving things look like food for toads, and that toads are able to learn to stop trying to get what they cannot get. Probably on the basis of the knowledge that toads in their natural environment only hunt for moving insects, Buytendijk dropped his assumption that also non-moving things look like food for toads. In the discussion of other similar experiments with toads, he says that non-moving things lose the meaning of food for toads (Plessner & Buytendijk, 1925, p.71). At this point he could have stopped and said: the reaction of toads to food-like things is just a reflex. However, he went on trying to understand why toads did not stop trying to get food that they could not get. Now the question becomes: is this understanding a matter of carefully observing feeding behaviour of toads in their natural environment until their behaviour in experiments can be seen as a particular case? I would say no. If Buytendijk had done this, undoubtedly he would have seen that toads in their natural environment also keep on trying to get food that they cannot get. This would not have provided him with an answer to the question of the meaning of this behaviour. It just says that the behaviour of toads in experiments is the same as in their natural environment, i.e., that also the laboratory toads perform species-specific

behaviour. Buytendijk, however, also involved eating behaviour of toads in further experiments instead of only foraging behaviour. The result from these experiments was that toads rapidly learn to stop trying to get food-like but inedible things. Buytendijk explained this rapid learning process as well as the slow learning process to react to just food-like things by referring to the natural way of life of toads. Again, he did not see both learning processes as particular cases of species-specific behaviour of toads. He tried to understand the meaning of the toads' behaviour in his experiments as well as in their natural environment. Actually it does not matter that Buytendijk did experiments in a laboratory. He could as well have carefully studied and tried to understand the behaviour of particular toads in their natural environment; it only takes more patience to observe particular situations occurring in nature.

Only within a very specific sense can we say that Buytendijk subsumed the meaning of his laboratory toads' behaviour under that of their species-specific *Umwelt*. At the start of his experiments, the meaning of the *Umwelt* for toads was as unknown to Buytendijk as covering laws are sometimes unknown at the start of natural-scientific investigation. Buytendijk did not refer to the toads' behaviour in their natural environment in order to have a standard for interpretation of his laboratory toads' behaviour; natural behaviour needed to be interpreted too. *He tried to bring the assumed meanings of the toads' behaviour under natural as well as laboratory circumstances into coherence with each other under the heading of a toad's specific Umwelt.* This heading is correct until toads perform new, unintelligible behaviour and the process of the hermeneutical circle must be started again. This is similar to the process of understanding the expressions of various Dutch persons as expressions of the Dutch culture.

Single and double hermeneutics

These concepts originate from Anthony Giddens, a contemporary social theorist. They refer to a difference between scientific knowledge of nature and humans respectively. 'Single hermeneutics' refers to the fact that natural-scientific concepts and their founding pre-scientific meanings of nature are shared by scientists and laypeople only. 'Double hermeneutics' refers to the fact that the concepts and pre-scientific meanings of the social sciences are also shared by the 'objects' themselves. Giddens asserts that humans, unlike nature, are not only determined by social rules, but that the humans involved also have constituted these rules. It is the aim of the social sciences, he states, to understand the social world as constituted by active humans, a constitution that is based on their meaningful understanding of themselves and their own actions. In order to understand the human social world properly, social scientists have to base their concepts on this non-scientific understanding already achieved by their 'objects' (Giddens, 1976/1993, pp.163-167).

The question is of whether understanding animals is a matter of single or double hermeneutics. Giddens' answer to this question is: "The hermeneutical element involved here [in the social sciences-SL] does not have a parallel in natural science, which does not deal

with knowledgeable agents in such a way - even in the case of most animal behaviour" (Giddens, 1976/1993, p.13). Except for the latter phrase, this answer is in line with the classical hermeneutical view on non-human nature. That view also says that non-human nature does not express a meaning of its own, whence our pre-scientific understanding as well as our scientific concepts of non-human nature cannot be shared with it. Giddens says that, in order to know the natural world properly, natural scientists do not have to penetrate into non-scientific meanings as understood by nature itself (Giddens, 1976/1993, pp.9-15).

With regard to animals, the last words of Giddens' just quoted answer are important. "In the case of most animals" may imply that perhaps in the case of some animals a double hermeneutics is possible and needed. If the constitution of their own meaningful world is the criterion of double hermeneutics, then the answer to the question of whether understanding some animals can be a matter of double hermeneutics should be positive. As we saw in the previous chapters, it can be said of many animals that they shape their own bodies and environments into a meaningful *Leib* and *Umwelt*. So, it seems possible to base the concepts of an interpretative animal science on the meaningful way in which the animals themselves are related to and shape their *Leib* and *Umwelt*.

Although some animals shape their own *Leib* and *Umwelt*, there are good reasons to argue that understanding animals is not a matter of double hermeneutics. These reasons refer to the character of animal experiences that is typical of animals. Most people will admit that animals cannot be conscious of their experiences in the sense of that they can reflect upon them. Animal experiences may imply some form of awareness, but not awareness of their experiences as such. In short, animals do not understand their selves as experiencing selves. As Plessner would say, experiences happen to animals as here-and-now experiences of which they cannot become conscious. Because the animals themselves do not understand their own experiences, it is impossible for them to understand and share their meaning as understood by us. Another reason for this impossibility is that animal experiences, because of their specific character, remain bodily experiences, and cannot be personal like human experiences. As argued in the previous chapters, even our own bodily experiences are always personal, cultural and historical (see, for example, the discussion of human pain feelings). We cannot take away these aspects like a coat so that only the bodily aspects, which we can share with animals, remain.³ As Plessner says, this would require that we become animals, but then we would be unable to speak about animal experiences:

³ Kockelkoren is of the opinion that in modern science, even hermeneutical science, the bodily aspects of understanding are neglected. For the above given reason, I do not agree with him that we have to develop these aspects of understanding in order to understand animals in the same way as humans (Kockelkoren, 1992).

“Doch zu den aussermenschlichen Umwelten führt kein Weg. Wir müßten uns da ganz aufgeben, müßten selbst Tiere werden, um zu wissen, wie ihre Welt aussieht, aber dann hätten wir keine Möglichkeit mehr, davon zu erzählen und über die Anmaßung des Menschen zu lächeln.” (1946/1983, p.59).⁴

I conclude that the difference between human and animal experience constitutes the ground for the impossibility to share our understanding of animals with them. However, Plessner’s statement and this conclusion are in contradiction to what Buytendijk asserts. The latter holds that we can say how the *Umwelt* appears to an animal by carefully and precisely studying his behaviour in his environment (see chapter VIII.1). I say: although Buytendijk’s interpretations of animal behaviour may be persuasive, he did not and could not get what he wanted, namely knowledge of the way in which the animals themselves experience their *Umwelt*.

Does the absence of a double hermeneutics, therefore, necessarily imply anthropomorphism? And, was Von Uexküll right in saying that we cannot but ascribe human meanings to animal behaviour? These questions can be understood and answered on different levels: that of the presence of meaning in animal behaviour, that of the presence of meaningful animal experiences, and that of the type of expressed experiences. *On the three levels, anthropomorphism is inevitable in the sense that every understanding of non-human nature cannot but use human concepts. Some forms of anthropomorphism, however, are more legitimate than others.*

With regard to the first two levels, I refer to Plessner’s view on animals. As said in the relevant chapter, Plessner intended to make comprehensible the different ways in which non-living nature, plants and animals respectively appear to us, and the ways in which we conceive of them in a pre-scientific way. Some animals do appear to us as expressing meaningful experiences (see also early Dilthey). Plessner’s philosophy of animals provides us with a persuasive account of this appearance. Perhaps it is anthropomorphic to ascribe meaningful experiences to animals, but this objection can be turned upside down: to deny animal experiences leaves us with the problem of the apparent differences between non-living nature, plants and animals.

Usually, anthropomorphism is seen as a question concerning the third level, namely the ascription of typical human experiences to animals. For deciding whether we incorrectly ascribe particular experiences to animals, we need to know whether and why there is a difference between animal and human experiences. Plessner and Buytendijk provide us with a key to such a difference, namely that only human experiences are personal, cultural and historical. This might prevent us from the ascription of experiences to animals which they cannot possibly have, for example experiences of personality in pets.

⁴ But, there is no way to non-human *Umwelten*. We would have to give up our selves totally and become animals in order to know what their world looks like, but then we would not have the possibility any more to speak about their world or to laugh about the arrogance of humans.

3. Interpretations as well as explanations of animals

My plea for an interpretation of animal behaviour does not imply that I reject every natural-scientific approach to it. On the contrary, interpretative and natural-scientific studies can and need to support each other. For explaining this, we must have a closer look at the different sorts of relationships between interpretative and natural-scientific views on animals.

The Utrecht School in Psychology criticized all types of natural-scientific psychology because these do not do justice to what they saw as the essence of human being. Later, Linschoten, one of the members of the Utrecht School, weakened this criticism by saying that phenomenology and natural-scientific psychology have different aspects of humans as their subject matter. I stated, in the beginning of the previous section, that the choice of the type of (human and animal) psychology should depend on the kind of subject matter one wants to gain knowledge of. If, for example, animal ethologists want to indicate something about animal welfare as an experience of animals, then they need a subjectivating view on animal behaviour. Such a view does not need to reject all natural-scientific approaches, as the psychologists of the Utrecht School felt. The Utrecht School made no distinction between different types of natural-scientific psychology. In this section I will show that the sort of relationship between natural-scientific and interpretative views on animals depends on the content and claims of the involved natural sciences.

Competing paradigms about animal behaviour

Generally speaking, the view on animal behaviour within animal ethology has changed twice during this century. At the beginning of the century, the reflex theory of animal behaviour, to which Buytendijk opposed up in the beginning of his career, was the most common view. This theory states that animal behaviour is the causal effect of physical, chemical or mechanical processes. Later the behaviouristic view became the most popular view. Behaviourism sees animal behaviour as the effect of internal or external causes. Common to both views on animal behaviour is that they do not allow subjective phenomena such as experiences, cognition, or emotions within behavioural science. The recognition and allowance of such subjective phenomena form the basis of what is seen as a new, cognitive paradigm in animal ethology (see Rollin, 1989).

In *Intermediate Reflections 1*, I argued that this paradigm shift is not profound enough. Followers of this new paradigm assume subjective phenomena in animals, but they do not arrive at a conception of these phenomena. The only difference between this paradigm and the former concerns the allowance of subjectivating concepts as explanations of animal behaviour. Animal experiences as subjective experiences to which such concepts refer are still no subject matter of this ethological paradigm. *I consider only an animal science that allows subjective animal experiences as its subject matter a real paradigm shift.*

A change of view on the subject matter of science is an ontological question. This ontological question cannot be decided by experiments, because it constitutes the non-

scientific, philosophical basis of scientific paradigms. Therefore, it is incorrect that Buytendijk considered his experiments with toads a refutation of the reflex theory, because every behaviour of animals that can be understood as an expression of experience can also be explained as more or less complex reflex behaviour by means of new hypotheses. What Buytendijk tried to question in his experiments with toads is not only a scientific theory, but also an ontology regarding animals. By means of experiments, he tried to prove that animals are experiencing beings. This is impossible. Upon ontological and other philosophical questions, which form the basis of paradigms, one cannot decide in the same way as scientists decide upon competing theories and hypotheses. Questions regarding the character of the subject matter of science can only be decided upon by philosophical arguments.

Experimental data cannot give an answer to ontological questions, but the other way around: experimental data are interpreted differently depending on one's ontological or otherwise philosophical view. As Buytendijk also says, adopting either a natural-scientific or an interpretative approach to animals is a matter of non-scientific motives (Buytendijk, 1938b, pp.45-46). *Natural-scientific approaches to animals such as the reflex theoretical and behaviouristic on the one hand, and an interpretative approach on the other hand, are competing approaches insofar they are based on competing views on animal behaviour, namely as governed by causal laws and as expression of experiences respectively.*

Complementary views on animals

There are natural-scientific approaches to animals that, unlike the reflex theory or behaviourism, do not deny subjective animal experiences. They just say that these experiences are not their subject matter. As we will see in the next chapter, animal welfare scientists only studying physical aspects of animal welfare mostly do not deny animal experiences of welfare. They only say that these experiences are not the subject matter of their research. Similarly, people defending an interpretative view on animal behaviour may say that they do not deny that genetic, physical, chemical, mechanical or environmental factors causally determine this behaviour. Like the aforementioned scientists, they may say that these factors are not the subject matter of their research. Actually, Buytendijk is saying this when he considers the physiological and meaningful aspects of behaviour two different aspects that cannot be studied simultaneously (Buytendijk, 1965, pp.83-84). Depending on one's knowledge interest, one can adopt a natural-scientific or an interpretative view. *So, if natural-scientific and interpretative views moderate their claims and say that they study only one aspect of animal behaviour, then they are not competing but complementary views on animal behaviour.* This is also Linschoten's position in the 1960s and that of hermeneuticists like Dilthey and Gadamer. They do not deny that humans (and animals) can also be conceived of as physical bodies. Linschoten speaks about different aspects of humans (see the previous chapter). Dilthey says that physical processes are conditions for experiences (GS V, pp.250-253). Gadamer, finally, does not deny the success of a natural-scientific medical view on humans (see chapter V.2).

Coherence between natural-scientific and interpretative studies

Many animal scientists say that we cannot know animal experiences directly because animals are not able to report them to us. Animal experiences can only be known indirectly, they say. We can indirectly know these experiences by means of associated (neuro)physiological states or processes, or by deriving them from the biological functionality of animal behaviour (see, for example, Sandøe's view on knowledge of animal experiences of welfare in the next chapter). This reasoning makes use of the formerly discussed argument from analogy. As said before, this argument is solely an assumption, namely that particular (neuro)physiological states or processes or biologically functional behaviour in animals, like in humans, is associated with experiences. From a scientific point of view, so-called indirect knowledge of animal experiences does not indicate anything about these experiences. As Plessner correctly said, without trying to interpret animal behaviour, animal psychology differs in no way from stimulus-response physiology or comparative biology studying life plans physiologically (see chapter VII.5).

Interpretations of animal behaviour do not make the aforementioned indirect scientific assessments of animal experiences worthless. Such assessments are not merely physical measurements, but are in a certain sense also interpretations of these measurements. For example, the use of the term "stress" by physiologists is an interpretation of a physical, bodily phenomenon, albeit an implicit interpretation. An interpretative study of stress in animals make such implicit interpretation explicit and amenable to discussion. In this sense, an interpretation of particular animal behaviour as expression of stress also indirectly refers to physical states that we call stress, just as an interpretation of a movement as walking implies that legs are moving in a mechanically explainable way. One can say that the hermeneutical circle of interpretation and the empirical circle of scientific explanation touch each other at the use of concepts with a double-aspect character such as stress. *Therefore, an interpreted meaning of a particular animal behaviour and natural-scientific data that are seen as other aspects of that same meaning should be in coherence with each other.*

Real and constructed animal experiences

Cybernetic theories about animal experiences represent a fourth kind of natural-scientific approach to animal behaviour. They pose the question of the relationship with interpretative animal science in yet another way. The animal welfare theory of Wiepkema and Toates, which I discussed in chapter II, is an example of the contemporary cognitive cybernetic view on animals. Unlike followers of the reflex theory or behaviourists, Wiepkema and Toates do not deny animal experiences. On the contrary, motivations and emotions are part of their theory. This theory explains animal behaviour as regulated by feedback mechanisms of which motivations and emotions are elements. Dilthey and Buytendijk, however, say that objective models of animal behaviour of which experiences are elements, such as cybernetic models, are constructions of subjective animal experiences that are known in another way. Buytendijk

has explicitly discussed cybernetic models of behaviour. I will present only his arguments, which basically do not differ from Dilthey's.

Buytendijk holds that a cybernetic view on behaviour relies upon the subjective character of behaviour. Cybernetic models of behaviour are abstract and *a posteriori* reconstructions of it. Cybernetic models abstract from the subjective, meaningful character of behaviour by conceiving of this behaviour in logical or mathematical terms. Even concepts that refer to subjectivity such as intentions, plans, and information are formulated in such formal terms. In cybernetic models, there is no conceptual difference between, on the one hand, humans and animals and, on the other hand, cybernetic machines set up by humans. Both are conceived of as organized systems. Buytendijk says that the difference between humans and animals and cybernetic machines is that the former organize themselves (to which concepts such as intentions, plans, and information refer), while the latter are organized by humans (see chapter VIII.2). Only afterwards can one see humans and animals as organized systems (Buytendijk, 1965, chapter CI; Buytendijk & Christian, 1963). *Wiepkema and Toates do exactly what Buytendijk describes: they explain animal behaviour that they consider to be subjective, emotional behaviour by means of a theory in which emotions are solely formal, theoretical entities.* Subsequently they are confronted with the problem of reconnecting emotions as theoretical entities to emotions as subjective phenomena again.

4. Principles of an integrated approach to animal welfare

As a transition to the next chapter, I will formulate four principles of an approach to animal welfare science that integrates the natural-scientific and interpretative views on it. In the next chapter these principles will be elaborated in light of two contemporary debates about animal welfare and animal welfare research.

One of the conclusions of chapters II and III was that natural-scientific approaches to animal welfare require the argument from analogy for relating objectivating, theoretical statements to subjective experience. The discussed ethological animal welfare theories that include theoretical concepts such as 'motivation' and 'emotion' are in need of this argument, and also animal scientists who study physiological or neurological aspects of animal welfare require it (see the following chapter). This implies that natural-scientific approaches to animal welfare rely upon the assumption that animals, like humans, have subjective experiences, because this assumption makes up the argument from analogy. *The first principle is that, in order to legitimize this assumption, an approach that conceptually and methodically sticks to animal welfare as subjective experience should be developed.* The proposed interpretative method for understanding animal behaviour can fulfil this role by systematically and critically elaborating our daily understanding of animals. This is what I meant by saying that the last paradigm shift within animal ethology which consists of recognizing of animals as

experiencing beings, is not profound enough; it also requires a view different from the natural-scientific objectivating, cognitive view on animals: namely, a subjectivating one.

Most animal welfare researchers consider animal welfare experiences similar to human welfare experiences. This is the core of the argument from analogy. Because humans say that particular behavioural or physiological processes are associated with feelings of welfare, one assumes that similar processes in animals are associated with similar feelings. I have argued, however, that animal experiences are not similar to human experiences. That humans say or can say what they feel means that they are (or can be) conscious of their feelings. This makes these feelings personal instead of merely bodily. Animal feelings of welfare, by contrast, are and remain bodily, vital feelings. This difference between human and animal experiences is not a matter of a gradual difference but of a qualitative distinction. (According to Plessner and Buytendijk, this qualitative distinction is based on an ontological distinction between animals and humans.)

On the face of it, especially the idea of typically animal experiences, appears to give sense to the phrase "from the animal's point of view" which is often used in animal welfare debates. By means of this phrase, one intends to convey that animal welfare is not a matter of how humans evaluate the situation of animals, but of how the animals themselves see it. After critical scrutiny, however, it appears that the interpretation of animal expressions as representing good or poor welfare always remains a human interpretation. Because of the bodily character of animal experiences and, therefore, the one-sidedness of interpretations of animals, these interpretations always remain human interpretations philosophically, theoretically as well as practically. *The second principle is that, although animal experiences are the subject matter of animal welfare sciences, we have to give up the animal's point of view as the ideal of these sciences. We must acknowledge that our interpretation of animal behaviour and other bodily phenomena as expressions of welfare is a matter of inevitable anthropomorphism.*

Though inevitably anthropomorphic, interpretations of animal behaviour can be more or less justified by the use of an agreed-upon method for understanding animals. Such a method can - except for its one-sidedness - be similar to that of understanding humans. Concerning humans, this method consists of going to and fro between the assumed meaning of particular expressions and its cultural and historical context. Concerning animals, this is going to and fro between the assumed meaning of particular expressions and its species-specific context. Like the cultural and historical context of human expressions, the species-specific context of animal expressions is not known beforehand. We gain knowledge of it by the interpretation of particular expressions of individual animals of a species. *This implies, and this is the third principle, that species-specificity does not function as a given standard for understanding particular animal behaviour as good or poor welfare. 'Species-specificity' refers to an unknown context of understanding that is revealed simultaneously with the understanding of the expressions of individual animals.*

The interpreted meaning of animal behaviour is one aspect of their behaviour; others are, for example, physiological and biologically functional aspects. Especially if one sees the latter as associated with animal experiences, interpretations of animal behaviour should be in coherence with natural-scientific research results. For example, many animal welfare scientists consider the production of endorphin in animals a sign of stress. Let us suppose that interpretative scientists do not understand the behaviour of the animals involved as expression of stress. Then both physiologists and interpretative scientists of animal welfare are faced with a problem, namely that of the incoherence of their interpretations. By aiming at a consensus about - and thus a coherence of - their interpretations, they can solve this problem. *So, the fourth and last principle is that interpretations of animal behaviour and natural-scientific research data that also suppose to refer to good or poor welfare should not be in contradiction with each other.*

CHARTER X

A CRITICAL READING OF TWO ANIMAL WELFARE DEBATES

In the previous chapter I have given a first sketch of a method for studying animal behaviour as an expression of experience. This method intends to be a justification of the argument from analogy that assumes that animal behaviour, like human behaviour, is an expression of experience. Contrary to what the argument from analogy assumes, I do not see animal experience as similar to human experience. In the previous chapters, I have developed a concept of animal experience as impersonal and bodily and environmentally bound. This differs from the concept of human experience as personal, cultural and historical. In this chapter, I will explore the fruitfulness of these philosophical ideas for contemporary debates about animal welfare. Two such debates will be analyzed in light of these ideas.

The first debate took place at a conference about welfare of domestic animals in Denmark in January 1994. It had a philosophical focus because it concerned the definition of animal welfare and the method for measuring it. Most contributions involved attempts to set out and defend different views on these issues (*Acta Agriculturae Scandinavica*, Section A, Animal Sciences, Supplement 27, 3, 1996). I will discuss a few of these contributions (X.1).

The second debate is about the welfare of mink who are kept for fur. This subject was in dispute among mostly Dutch philosophers and scientists of animal welfare. In the second section of this chapter, I will comment upon this debate from the point of view of the concept of animal experience and the method for studying it as developed in the previous chapter (X.2).

1. Philosophical-theoretical problems in contemporary animal welfare science

At the aforementioned conference in Denmark, the two major problems were the definition and measurement of animal welfare. The problem for defining animal welfare was the question of how much importance should be given to animal feelings as an element of animal welfare. This question is related to the problem of the measurement of animal welfare itself, because most of the participants held that it is impossible to know animal feelings. In their concluding remarks, the conference editors say: "The 'definition issue', of course, gives rise to a number of questions which could be the object of future research: What is the nature of feelings? Why isn't it possible to measure the occurrence of feelings in an animal?" (Sandøe et al., 1996, p.110). In this section some answers to both questions will be discussed. In doing this, I consider animal feelings of welfare as a sort of subjective animal experience.

1.1 Definition of animal welfare

The debate about the definition of animal welfare can be seen as a discussion about the definition proposed by Lorz: “a state of physical and psychical harmony between the animal and itself and its environment” (Lorz, 1973, p.70). The issue at the conference was whether either the physical or the psychical aspects of animal welfare are the most fundamental. Especially Donald Broom and Ian Duncan defended the opposite views on this issue.

Physical welfare and feelings

Broom defines the welfare of an animal as “[the]... state as regards its attempts to cope with its environment” (Broom, 1996, p.23). As living beings, animals have needs to obtain particular resources or to respond to particular environmental or bodily stimuli. Animal needs affect their motivations to behavioural and physiological coping responses that fulfil these needs. Broom’s line of reasoning is: if an animal is not able to cope with his environment, or only with difficulty, then that animal is in poor welfare (Broom, 1991, pp.4167-4168; Broom, 1996, p.23). *The main point of Broom’s definition of animal welfare is that he defines it solely in terms of the fulfilment or non-fulfilment of animal needs irrespective of the presence or absence of feelings.* Broom’s definition of animal welfare relies upon a theory which is more or less like that of Wiepkema and Toates. Wiepkema and Toates say that every attempt to reduce a difference between *Sollwerte* and *Istwerte* is regulated by emotions, at least in vertebrate animals. Broom explicitly says that injuries without pain, increased susceptibility to diseases or inability to reproduce are evidences of poor animal welfare (Broom, 1991, pp.4168-4169). This means that animal welfare does not always include feelings. Some, not all needs are associated with positive and negative feelings: “Some needs are associated with feelings and these feelings are likely to change when the need is satisfied” (Broom, 1996, p.23).

Duncan denies that, for example, injuries without pain point towards poor animal welfare. He also considers animal welfare as dependent on the presence of feelings (Duncan, 1996, p.29). He sees animal welfare related to the fulfilment of needs, but of felt needs only, which he calls “wants” and “desires”. He also recognizes that as living beings, plants also have needs; however, they do not have feelings, wants and desires. *Duncan’s main argument is “... that needs in themselves are irrelevant to welfare and that it is the wants or desires or emotional states associated with needs that are of paramount importance”* (Duncan, 1996, p.31). An inability to reproduce, injuries or increased susceptibility to disease are situations of poor welfare only if they are felt by animals, he asserts.

Sometimes it seems that Broom agrees with Duncan. He says that subjective feelings are an extremely important part of animal welfare (Broom, 1991, p.4169; 1996, p.26). Referring to the German difference between *Bedarf* and *Bedürfnis*, he also distinguishes between needs to stay alive and needs that are wished to be satisfied (Broom, 1996, p.23). However, Broom does not want to restrict animal welfare to situations that include animal feelings.

In their concluding remarks, the conference editors explain the difference between Broom and Duncan's definitions of animal welfare as a difference between their concerns. Duncan wants to give a definition of animal welfare that focuses on what is at issue when laypeople feel concern about animal welfare. Broom wants to give a definition that is useful for practical purposes (Sandøe et al., 1996, p.109). By seeing these different definitions as simply a matter of different concerns, they obscure some important underlying issues.

Various grounds for animal ethics

Stafleu et al. have given an illuminating analysis of the different definitions of animal welfare (Stafleu et al., 1996). They discuss three types of definitions, namely common-sense, explanatory and operational definitions. They consider the development from the common-sense to explanatory and operational definitions of animal welfare as both an evolution and an erosion. The evolution consists of making animal welfare amenable to scientific research. The erosion consists of the loss of moral aspects of animal welfare.

In light of the dispute between Broom and Duncan, the moral aspect that gets lost is that feelings are involved in animal welfare. Duncan holds onto the common-sense meaning of animal welfare, which includes feelings. Broom, who intends to give a scientific, operational definition, defines animal welfare not in terms of feelings.

Duncan's view can be misunderstood by reading this as implying that only situations that include feelings are morally relevant (see, for instance, Fraser et al., 1997, p.194). This would imply that he sees, for example, injuries without feelings of pain as morally irrelevant. However, Duncan's definition of animal welfare does not need to imply this however.¹ This misunderstanding concerns the foundation of animal ethics and bio-ethics. I believe that animal feelings are only one of the reasons for moral concern about animals and other organisms. Just as we are morally concerned about the destruction of tropical forests without saying that forests feel this destruction, we can be morally concerned about an injured animal without the animal feeling pain. In order to be clear, I propose to name different situations differently. *I propose to use 'quality-of-life' as a general concept that can be specified for different situations. The morally relevant aspects of situations that do not include feelings (such as of plants, landscapes, and animal injuries without pain) can be designated by 'integrity' or 'bodily integrity'. In my view, 'animal welfare' can better be restricted to morally relevant situations that include feelings.* This proposal prevents misunderstandings such as found in Fraser et al. who equate animal welfare concerns with quality-of-life concerns. My reply to Fraser et al. would be that I do not restrict quality-of-life concerns nor moral concerns to organisms with the capacity to feel. I say that any harm to organisms might be a moral question, even if they do not feel this harm.

¹ I do not know whether Duncan agrees with the forthcoming argument, so I will present it as my own.

Knowledge of animal feelings

The most important philosophical question that is concealed by seeing the definition issue as a matter of different concerns, is the problem of how to know animal feelings. Many animal welfare scientists, including Broom, say that animal feelings are an important element of animal welfare. Nevertheless, they reject a definition of that welfare in terms of feelings because they think it is impossible to know animal feelings directly and scientifically. They assert that Duncan's definition of animal welfare is of no use for measuring it. "It is neither scientifically nor practically desirable to define welfare only in terms of subjective experiences such as suffering" (Broom, 1991, p.4169).² The scientific undesirability refers to two issues: the neglect of other indications of poor animal welfare such as extreme physiological responses or abnormal behaviour (Broom, 1996, p.27), and it presumes that only natural-scientific measurements of animal welfare are good measurements.³ In the section below, I will discuss the latter issue. The former will be discussed in the second part of this chapter.

1.2 Assessment of animal welfare

Some participants in the aforementioned conference try to solve the definition problem by saying that, whether or not one defines animal welfare in terms of feelings, behavioural, physiological and other physical indicators are useful for measuring it. Either they see such measurements as making operational the concept of animal welfare (Broom for example) or they see these as indirectly referring to animal feelings (Sandøe and Simonsen for example). However, such measurements do not provide us with a solution to the definition problem. Broom and Duncan judge physical measurements differently. Whether one considers an animal to be in good or poor welfare depends on the used definition. Yet many animal welfare scientists say that physical measurements are indicative of animal feelings of welfare. In this section I will discuss both views on the measurement of physical aspects of animal welfare: measuring physical welfare and measuring psychic welfare. I will show that both views are problematic.

² As I argued in the previous chapter and will argue in the next section, I do not define animal welfare "only in terms of subjective experiences". I see subjective experiences as a fundamental aspect of animal welfare in addition to physical aspects.

³ Already the term "measurement" betrays a scientific view on animal welfare which holds that only natural-scientific measurements are good measurements. Therefore, I prefer to use the more neutral term "assessment".

Measurement of physical animal welfare

Seeing animal welfare as not involving or independent of feelings implies that particular physical states of animals indicate their welfare. Broom, a representative of this view, mentions five examples of physical indicators that measure the degree of animal welfare: adrenal activity, stereotypic behaviour, growth and reproduction, immune response, and injuries (Broom, 1996, p.25).⁴ The scientific and practical usefulness of Broom's view consists of its objective, scientific information concerning animal welfare. Broom gives a simple example of this usefulness: namely, animal welfare during transport. It is the task of animal welfare scientists to measure the effects of different methods of transport on animals, he says. Let us suppose that these scientists find out that a particular method of transport results in a higher adrenal activity and more injuries than other methods. According to Broom, these results should indicate reduced or poor welfare during that particular method of transport. Ethical questions (for example, that animal welfare should not be poor and how to take into account animal welfare during transport) can and must be separated from scientific questions, he says (Broom, 1996, p.26).

Tannenbaum, however, argues that animal welfare science and ethics are inextricably connected. He mentions many values that are present in animal welfare science: the selection of animals and the environmental conditions to be studied, the choice of the measured indicators, and value judgements about the animals' welfare based on the measurements as mentioned by Broom (Tannenbaum, 1991).

Animal welfare scientists can admit many of the mentioned values without rejecting what Tannenbaum calls the "pure science model". For example, they can admit that the selection of animals is not value-free, but hold that the measurements themselves are purely descriptive and value-free. One value, however, cannot be separated from animal welfare science: even when animal welfare is conceived of as only physical welfare, it already implies that particular physical states are better or worse than others. As Broom says: "... welfare refers to how well the individual fares in life." (Broom, 1996, p.27). And, as Fraser et al. say: the concept of animal welfare is "... a 'bridging concept' which links scientific research to the ethical concerns that the research is intended to address." (Fraser et al., 1997, p.188). The very notion of animal welfare has a descriptive, scientific and evaluative sense, and measurements which are thought of to indicate animal welfare have both senses as well (see also Tannenbaum, 1991, p.1366).⁵ *A descriptive, scientific view on animal welfare neglects -*

⁴ Measurements of animal welfare are mostly measurements of poor animal welfare. This might be caused by a conceptual problem similar to the difficulty (or even impossibility) of defining human health, which contrasts to the ease with which human diseases are defined (see Gadamer in chapter V.3).

⁵ Contrary to Tannenbaum, I do not equate values with ethical values. I use the term "evaluative" for values in general, which include more than only moral values (for example, aesthetic values). The terms moral, ethical and normative will be used for issues concerning the way in which we ought to act with regard to humans, animals or other beings.

and thus does not justify - the inextricable evaluative sense of it. The value judgement involved in speaking of good and poor welfare cannot be separated from animal welfare science. Only ethical questions such as how to take into account animal welfare and of which animals can be separated from it.

This calls into question the very reason why Broom's view is praised, namely its provision with objective, scientific information about animal welfare. This information looks objective and scientific, but actually it also has an evaluative sense. For example, a figure that shows a higher adrenal activity in pigs during a particular method of transport compared to free-range pigs seems to represent only objectively demonstrated facts. Actually, animal welfare scientists evaluate these facts to the effect that the welfare of pigs during this method of transport is less than the welfare of free-range pigs. Laypeople and politicians are interested in this kind of statement, not in statistical figures. This evaluation, however, is not objective and scientific.

Indirect measurement of animal feelings

Animal welfare scientists who see particular physical measurements as indirect indicators of psychic animal welfare put forward an evaluative sense of 'welfare' by means of positive and negative animal feelings.

Almost all participants in the aforementioned conference agreed that there is no direct way to know animal feelings. This argument is widespread within animal welfare science. Animal welfare scientists mostly conceive of feelings as internal states or events that can only be known directly by the humans or animals involved and only indirectly by others. Most animal welfare scientists who emphasize animal feelings as an element of animal welfare, consider measurements of physical animal welfare indirect measurements of animal feelings.

Peter Sandøe and Henrik Simonsen represented this view at the conference. They started a jointly written article with noticing a dilemma in animal welfare research: either this research is scientific but does not give satisfactory answers to questions concerning animal feelings, or it gives satisfactory answers but is not scientific (Sandøe & Simonsen, 1992, p.258). To them, mere quantitative figures about adrenal activity in transported and free-range pigs is scientific but unsatisfactory. The statement that transported pigs are in poor welfare is satisfactory but not entirely scientific (in the sense of the "pure science model"). The conclusion of their article is that animal welfare science necessarily implies philosophical questions. In their view, these philosophical questions are of two kinds. Firstly, the concept and theory of animal welfare should answer evaluative questions such as: What is animal welfare? and: What is good for the animal? Secondly, there is the question of analogies and homologies between humans and animals with regard to their feelings.

Like Tannenbaum and Fraser et al., also Sandøe and Simonsen state that the very concept of animal welfare implies evaluative issues which should be articulated and justified in animal welfare science and research. As we saw above, strictly scientific views on animal welfare obscure these issues. I fully agree with this part of their argument.

With regard to the analogies and homologies between humans and animals, the line of reasoning followed by Sandøe and Simonsen is the same as that followed by ethologists such as Toates, Wiepkema and Dawkins. Sandøe and Simonsen say that a general welfare theory is based on human welfare but abstracts it from humans. It covers animals because it is reasonable to believe that the capacity to feel has evolved in (higher) animals as well (Sandøe & Simonsen, 1992, p.264). Here they put forward the argument from analogy. They also recognize that this argument is not scientifically justified. Hence, they say that the assumed analogy between humans and animals is a philosophical question, namely belonging to the background knowledge of most scientists and philosophers working in this field (Sandøe & Simonsen, 1992, p.264).

The homology and assumed analogy between humans and animals justify the inference from physiological and behavioural measurements to animal feelings of welfare (Sandøe & Simonsen, 1992, p.264). In light of the debate about the definition of animal welfare, this is problematic. The same physiological and behavioural parameters which Broom, for example, mentions as indicators of the physical aspects of animal welfare, are now also mentioned as indirect indicators of animal feelings of welfare. People like Broom might say that the only thing that is demonstrated scientifically is that the animals involved are physically in good or poor welfare. That they also have corresponding feelings is a mere assumption. *I think that, if one sees feelings as a fundamental aspect of animal welfare, then the animal feelings themselves should be the indicators of poor welfare.* At the conference Duncan was very clear about this:

“Nevertheless, it is feelings that govern welfare and it is feelings that should be measured in order to assess welfare We must devise ways of asking the animal what it feels about the conditions under which it is kept and the procedures to which it is exposed.” (Duncan, 1996, p.33).

In this passage Duncan formulates one of the aims of this book. I have tried to realize this aim by developing an interpretative method for studying animal behaviour. With the example of welfare of farm mink in the second part of this chapter we will see the necessity and fruitfulness of such a method for animal welfare science.

1.3 Problematic psychical aspect of animal welfare

One of my conclusions is that animal welfare scientists who stress the physical aspects and measurements of animal welfare are faced with two problems. First, from a purely scientific point of view, physical measurements are solely descriptions of physical states and events. Saying that these measurements are indicators of animal welfare implies an evaluative judgement that is ignored and thus not amenable to discussion. Secondly, this view on animal welfare does not and cannot make a distinction between plants and animals. Plants also can

have injuries, reproduce and have biological needs (for water, for example). Relating welfare to biological needs alone obscures the fact that in higher animals feelings can be involved, which is at the heart of the common-sense view on animal welfare.

The view on animal welfare that stresses animal feelings provides us with a solution for both problems. By saying that feelings are an essential element of animal welfare, one introduces an evaluative sense to the concept. Suffering, an instance of poor welfare, is not a mere state of animals which subsequently is evaluated negatively by humans. To be a negative feeling belongs to the very meaning of 'suffering'.⁶ By introducing feelings as an element of welfare, one distinguishes between beings and situations with and without feelings. This distinction reflects our different views on and moral concerns about plants and at least higher animals. Therefore, I proposed to use 'quality-of-life' as a term with regard to living beings in general, and 'welfare' only with regard to situations in which feelings are involved.

However, the proposed indirect measurement of animal feelings raises another problem: the same measurements are used by Broom as indication of only physical welfare. The latter can say that nothing more has been measured than physical welfare, and that the inference to animal feelings of welfare is not justified or is sheer nonsense. He can say this because the inference from these physical measurements to feelings assumes rather than demonstrates that animals, like humans, have feelings.

I largely agree with the opinion put forward by Duncan. I also hold that feelings, as a sort of subjective experience, are an essential element of animal welfare. And I also hold that it is animal feelings that should be assessed. In my view, the customary concept of animal feelings constitutes the main reason why animal welfare scientists struggle so much with the problem of how to know animal feelings directly. Most animal welfare scientists consider feelings internal effects of brain structures and causes of behaviour. Feelings can be known directly by the humans or animals involved but only indirectly by others, namely by studying brain structures and behaviour. This view reflects the natural-scientific attitude of most animal welfare scientists. Because of this attitude, they cannot but conceive of animal feelings as unobservable things or events inside animals (see *Intermediate Reflections* 1).

In line with the philosophy of the Utrecht School, however, I consider human and animal feelings a sort of intentional relationships to the world (see chapter IX.1). In the case of animals, these relationships are only bodily and behavioural. Referring to Merleau-Ponty and Plessner, I say that animal bodies and behaviours are ambiguous. On the one hand these are physical phenomena which can be studied scientifically, as animal welfare scientists usually do. On the other hand these are meaningful phenomena, namely expressing feelings that can

⁶ Here I do not agree with Tannenbaum. He mentions many values that creep back into the scientific study of animal experiences (Tannenbaum, 1991, p.1371). None of these values, however, concern the evaluative sense of used concepts such as discomfort, pain, stress and pleasure. Referring to his own statement about welfare, I would say that the very concepts of discomfort, pain, stress or pleasure include an evaluative component.

be interpreted, as Buytendijk did. *Therefore, knowledge of animal feelings, such as of good or poor welfare, also requires a complementary, interpretative perspective on animal bodies and behaviours beside the usual natural-scientific perspective.* In the following section about behavioural expressions of poor welfare in farm mink, the need for such a perspective and a first elaboration of it will become more concrete.

2. Ethological debate about welfare of farm mink

The main principle of the Dutch Animal Health and Welfare Act is that it is forbidden to harm animal welfare, unless there are good reasons for doing so. The Dutch Society for the Protection of Animals and the Fur for Animals Foundation are of the opinion that the welfare of farm mink is harmed - at least in the regular farming circumstances in which mink from the age of seven to eight weeks are individually housed in cages of about 0.25 m². These organizations do not consider the production of fur coats a good reason for harming the mink's welfare. Therefore, in the beginning of the 1990s, they started a campaign to prohibit mink farming. The Dutch organization of mink farmers, however, said there were no problems regarding the welfare of the mink. They consider producing fur coats a legitimate way of earning an income. In 1993 the Minister of Agriculture, Nature Management, and Fisheries (who is responsible for the implementation of the aforementioned act) asked the Dutch ethologist Piet Wiepkema to advise him on this difference of opinion. Wiepkema stated that there are "relatively minor welfare problems, which can largely be solved", for example by housing them in small groups, by changing their feeding regime, or by selective breeding directed at quiet mink (Wiepkema, 1994). Immediately after the publication of Wiepkema's report, the Fur for Animals Foundation solicited about ten mostly Dutch ethologists, animal ethicists and philosophers of animals to give their opinion about it.⁷ Then it became clear how difficult it is to say whether or not the animals' welfare is harmed.

By discussing three issues that emerged in this debate, I will demonstrate the relevance but also the insufficiency of natural-scientific measurements, experiments and explanations of animal welfare. I will also show the need for and possibility of interpretations of behaviour as developed in chapter IX.

2.1 The interpretation of quiet behaviour

Many mink exhibit restless behaviour which most of the consulted scientists and philosophers consider to be a symptom of poor welfare (see below). Not all mink exhibit this behaviour.

⁷ The papers and letters of the participants in this debate were not published, hence they are not put in the list of references of this book.

It has been discovered that this restless behaviour is partly determined genetically. In animal welfare science this is a quite common phenomenon: some animals exhibit an active way of trying to cope with their environment, others a passive way. Because of the genetic background of the activity of mink, mink breeders and researchers (including Wiepkema in his advice) propose programmes to breed for quiet mink. The assumption behind these breeding programs is that quiet mink are not in poor welfare.

Some of the consulted ethologists question this assumption. They believe that those breeding programmes will only take away one of the symptoms of poor welfare, not poor welfare itself. Indeed, I would add, there is no reason to assume that a passive way of trying to cope with the environment is automatically successful. This was also the proviso that Wiepkema added to his proposal; he said that other data that indicate their welfare such as their heart rate should give an answer to this question (Wiepkema, 1994, p.4). The heart rate of a quiet mink, measured at a Dutch research institute, did not show any sign of internal restlessness. But the experiment involved insufficient numbers of mink to draw a definite conclusion from it (De Jonge & Kleyn van Willigen, 1994).

A further hypothesis that researchers of this institute tested was that quiet behaviour in mink is apathetic behaviour. Apathetic behaviour is seen as the pathological phase of boredom, reflecting the unfulfilled need for environmental stimuli. A simple test for deciding whether or not animals are apathetic is to offer them a stimulus, and see if they react to it. If they do not react to it, this would mean that they have become indifferent to changes in their environment, i.e., are apathetic (Wemelsfelder, 1993). This test has been performed with quiet and restless mink. The result was that quiet mink, more than restless mink, sniffed at, bit in, and attacked a stick held out to them (Leipoldt & De Jonge, 1993). This result does not point towards the presence of apathy among the quiet mink. Also an inventory of studies in which various criteria of welfare were applied to quiet and restless mink showed that quiet mink never scored more negatively. Their reproduction, growth, adrenal activity and abnormal behaviour did not indicate poorer welfare than restless mink (De Jonge, 1993a). The conclusion, however, that quiet mink are perhaps in less poor welfare than restless mink does not necessarily imply that they are in good welfare.

The last example shows the relevance and necessity of physical and behavioural criteria and natural-scientific experiments for determining whether a particular animal behaviour is an expression of good or poor welfare. *If, according to the criteria used in such experiments, the animals are not in poor welfare, it is hard to persist in saying that they are.* As one of the researchers correctly said: if there is something wrong with the welfare of an animal, this must be observable (De Jonge, 1995, p.53). As the above-mentioned inventory also shows, physical and behavioural indicators alone are insufficient for evaluating animal behaviour. The measured indicators are not enough for concluding whether the quiet mink are either in good welfare or in less poor welfare than restless mink. The following examples demonstrate this insufficiency more clearly.

2.2 The need for swimming water

Another issue that emerged in the debate about farm mink was whether their welfare is harmed by the absence of swimming water, which some of the consulted ethologists assume to be expressed in restless behaviour.

Wiepkema held that this is not the case because mink in natural environments are opportunistic foragers (Wiepkema, 1994, p.3). They hunt for fish as well as rabbits. If there is not enough fish, mink will go hunting on land. So, mink do not need swimming water that much, he states in his advice. This argument takes the behaviour of wild mink, who are assumed to be in good welfare, as a reference.

Nagel Dunstone, one of the consulted ethologists (who has written a book about wild mink) took the same reference but reached a different conclusion. In natural environments mink prefer the waterside and hunting for fish; 70 to 90 per cent of their food is fish. Only when fish is not available, they leave the waterside, he asserts. So, if swimming water is absent, it might be that mink are in less welfare, he suggests. *The reference to the behaviour of mink in the natural environment seems to be ambiguous.* Wiepkema considers shifting from waterside to land an opportunistic way of foraging and eating; Dunstone considers it a response to the unfulfilled need for fish, which is higher than the need for rabbits, though both fulfil the need for food.

Most of the consulted people, however, did not refer to the behaviour of mink in a natural environment. They asked for experiments to prove whether the unfulfilled need for swimming water is one of the causes of restless behaviour of farm mink. One of the experiments for testing this consists of comparing the behaviour of mink in housing systems with and without swimming water. This experiment had already been performed at the previously mentioned Dutch research institute. The results of this experiment were that restless mink spend more time at the waterside than quiet mink, but that they hardly swim. This should point towards a higher need for water in restless than in quiet mink. Restless mink in cages with swimming water, however, perform as much restless behaviour as restless mink in cages without swimming water. Seemingly, the presence of swimming water does not reduce restless behaviour, wherefore the absence of swimming water cannot be a cause of this behaviour. This confirms Wiepkema's statement that mink do not need swimming water that much. Also after the experiment, when the mink were housed again in a cage without swimming water, they did not exhibit more restless behaviour, which could reflect their missing of swimming water. From these results, the researchers concluded that the absence of swimming water is not a cause of the mink's restless behaviour before feeding time (De Jonge, 1993b, pp.294-295; De Jonge & Leipoldt, 1994).

Georgia Mason, another consulted ethologist, would be unwilling to accept this conclusion. In her reaction to Wiepkema's advice, she asserts that the low frequency of swimming does not indicate the importance of swimming. As another respondent puts it, maybe they just have a very strong need to swim only once a day. Mason and other

respondents hold that only such experiments as developed by Dawkins can give an answer to the question of whether the absence of swimming water harms the mink's welfare. As described in chapter III.1, in such experiments the intensity of the motivation to attain something that the animal cannot get is measured. Dawkins considers this a measure of suffering.

Can preference tests be decisive for the need for swimming water? If mink do not seem willing to work for attaining swimming water, one might still hold that they do not need swimming water always. Or, as Dunstone suggests, maybe they do not need water for fulfilling their need for foraging behaviour or swimming, but for fulfilling their need for food. If mink are willing to do a huge amount of work for attaining swimming water, then this result would contradict the above-mentioned research result that mink in cages with and without swimming water perform the same amount of restless behaviour. Pursuing further reasoning along these lines would lead to an arm's race between experiments that only confirm or contest the prejudices of the researchers concerning the need for swimming water. *The conclusion of this example is that one can always contest natural-scientific criteria and the results and conclusions of experiments regarding animal welfare by proposing new hypotheses and new experiments.*

One of the participants at the conference about welfare of domestic animals, namely Simonsen, says the same. He also says that objective measurements of behaviour and other aspects are necessary but insufficient. They form the scientific background for saying whether animals are in good or poor welfare, but have to be interpreted subjectively (Simonsen, 1996, p.92). By 'subjective interpretation' he means that the evaluation concerning the animals' welfare depends on human evaluations of these objective measurements. I agree that evaluations of animal behaviour are always human evaluations (see the second principle of interpretative animal welfare research in chapter IX.4). I disagree that these evaluations are subjective (in the sense of personal) evaluations of objective measurements. Firstly, these measurements are not as objective as they seem to be. For example, the selection of what will be measured already implies that this is relevant for indicating something about the animals' welfare. As discussed in the previous section, objective scientific measurements always have an inextricable, evaluative sense. This evaluative sense concerns the interpretation of the scientifically measured, physical phenomena as expressions of good or poor animal welfare. Secondly, it is possible to develop an intersubjective method for evaluating animal behaviour and other physical phenomena as indications of good or poor welfare. A first step to developing such a method is to make the hitherto implicit interpretations of the researchers explicit, so that these become public and amenable to discussion. This will be done in the following example.

2.3 The interpretation of restless behaviour

As is clear from the foregoing issues, the most discussed question was how to evaluate restless behaviour that most mink exhibit before feeding time and which does not always stop after feeding. Most of the consulted experts disagreed with Wiepkema's evaluation of this behaviour before feeding time as normal foraging behaviour. They used many arguments to claim that this restless behaviour is a stereotypy and, therefore, an expression of the mink's poor welfare. Sometimes restless behaviour starts six hours before feeding time and it does not always stop after feeding; mink also exhibit this behaviour when fed freely, it has a fixed and permanent character. Before I continue the debate about mink, something must be said about stereotypic behaviour and its relation to poor animal welfare.

Stereotypic behaviour as an indicator of poor animal welfare

Animal welfare scientists see stereotypic behaviour as a particular type of abnormal behaviour. They define 'stereotypic behaviour' as characterized by an invariable form, a high frequency and no obvious function. Most ethologists consider stereotypic behaviour an expression of poor animal welfare (Wiepkema et al., 1983, pp.2-3). Stereotypic behaviour is explained by means of a theory that is more or less similar to that of Toates and Wiepkema. Animals perform stereotypic behaviour when they give up an attempt to fulfil a need. Wiepkema and Toates would say: if they are unable to reduce a difference between an *Istwert* and a *Sollwert*. Stereotypies are seen as indicators of poor welfare because they reflect the impossibility or difficulty of performing highly motivated coping behaviour. The reasoning seems to be clear: particular animal behaviour can be identified and explained as stereotypic and thus as indicating poor welfare.

Mason questions both elements of this reasoning. With regard to the identification of stereotypic and thus poor welfare behaviour, Mason says that all the mentioned characteristics can also be present in normal animal behaviour, which we do not consider as indication of poor welfare. For example, repetition and inflexibility characterize explorative behaviour in mice (Mason, 1991, pp.1016; Mason, 1993a, pp.8-10).⁸ It is hard to say when behaviour is still normal behaviour or becomes abnormal, especially when stereotypies are seen as ritualizations of normal behaviour, (Mason, 1991, pp.1026-1027).⁹ A well-known example of ritualized behaviour is dustbathing by hens on a grid floor. Dustbathing is

⁸ This example might be considered as not to the point, because explorative behaviour of mice is seen as normal, natural or species-specific, whence it is not a stereotypy and thus not an expression of poor welfare. However, this argument only says that the presence of the used characteristics of stereotypic behaviour are not enough for saying whether animal behaviour is a stereotypy indicating poor welfare. This is exactly the problem that Mason puts forward.

⁹ A ritualization of normal behaviour is the persistence of need fulfilling behaviour, although the animal is unable to fulfil the need in question because his environment is inadequate or unchangeable.

normal, functional behaviour, namely conditioning of plumage that is caused by a diurnal rhythm and by a period of deprivation of dust (Vestergaard, 1966, p.62). The question is how long a hen must perform dustbathing on a grid floor in order for it to become abnormal behaviour (Mason, 1991, pp.1026-1027; Mason, 1993a, pp.10-11). *Mason's conclusion is that it is hard to say whether animal behaviour with the characteristics of stereotypic behaviour is abnormal and thus an indicator of poor welfare.* Her own reply to this conclusion is that an explanation of the behaviour in question can solve this problem.

However, her criticism of the usual explanation of stereotypies is that ethologists wrongly assume a one-to-one relation between stereotypic behaviour and its motivational basis, i.e., the non-fulfilment of a need. Hence, they conclude too easily that stereotypic behaviour is an indication of poor welfare. The same motivational basis can be the cause of various forms of behaviours, Mason holds. Depending on, for instance, age, sex, type (active or inactive), and learning capacities of the animals, the non-fulfilment of a need can express itself in several forms of behaviour (or other physical manifestations, such as ulcers - SL). One of these forms of behaviour is stereotypic behaviour. What is more important, however, is that behaviour that seems to be stereotypic is not always caused by the non-fulfilment of a need. Therefore, it is not always an expression of the animal's poor welfare. One can think of habits and the aforementioned example of explorative behaviour in mice. *For saying whether a particular behaviour is an indicator of the animal's poor welfare, the unfulfilled need has to be demonstrated independently of the presence of the stereotypy, Mason states* (Mason, 1991, p.1019). From a scientific point of view, this is a correct line of reasoning. The same effect (in this case stereotypic behaviour) can have different causes (in this case an unfulfilled need or some other cause). Whether an alleged cause is the operative cause is usually tested in a series of experiments in which the effects of the presence and absence of this factor are observed. Let us have a closer look at the way in which Mason, in her own research with farm mink, demonstrated that an unfulfilled need is the cause of their restless behaviour.

Back to the mink

Mason was one of the ethologists solicited by the Fur for Animals Foundation to give her opinion about Wiepkema's report. For the reasons already stated, she did not agree with Wiepkema's opinion that restless behaviour before feeding time is normal foraging behaviour. She holds that this behaviour is abnormal stereotypic behaviour. Mason claims that the problem of identifying abnormal stereotypic behaviour can be solved by demonstrating that an inability to fulfil a need is the cause of the behaviour. Only if one can demonstrate this, can the restless behaviour of mink be said to be an expression of their poor welfare. I will show that the identification problem cannot be solved by a scientific explanation alone but also needs an interpretation of the mink's behaviour.

Mason says that the possible cause of restless behaviour before feeding time can be the unfulfilled need to perform appetitive hunting behaviour. She finds this hypothesis on the

character of most of this behaviour which consists of making use of the whole cage, such as pacing, (Mason, 1993b, pp.220-222). A scientific experiment to test this hypothesis would be to give the mink the opportunity to hunt. I do not think, however, that this experiment can provide the required answer. Let us suppose that the mink would stop exhibiting restless behaviour and start hunting. Then one can still hold that the restless behaviour before feeding time in the farming situation is a good substitute of foraging behaviour in the natural environment. Maybe both pacing and hunting meet the mink's need for appetitive foraging behaviour. *The issue at hand is that animals may be able to fulfil their need for appetitive foraging behaviour in various behavioural ways. Restless behaviour of farm mink before feeding time might be a variant of fulfilling this need.*

Another argument for saying that scientific experiments are unable to identify the cause of stereotypic behaviour can be derived from an experiment of De Jonge and Leipoldt (De Jonge & Leipoldt, 1995). The aim of this experiment was to find out whether an individual housing system affects the mink's welfare. The result of this experiment was that housing mink in groups reduced their restless behaviour before feeding time (De Jonge & Leipoldt, 1995; De Jonge, 1993b, p.293). This indicates that the unfulfilled need for companionship is, indeed, one of the causes of restless behaviour of mink. But one can say as well that restless behaviour is caused by some other unfulfilled need that is compensated by the presence of companions. As Simonsen says, animal experiences are the result of many and possibly antagonistically or synergistically acting experiences (Simonsen, 1996, p.91). *The issue at hand is that animal behaviour and animal welfare is always the aggregate result of fulfilled and unfulfilled needs in a particular situation. The cause of a behaviour and the importance of its cause might change, depending on that particular situation.*

Identification is interpretation

Mason herself used different arguments than the explaining ones for saying that restless behaviour of mink before feeding time is an expression of their unfulfilled need for hunting behaviour. She had discovered a statistically significant, difference between restless behaviour of mink before and after feeding time. She called the behaviour before feeding time "longitudinal": locomotion involving the length of the cage. The behaviour after feeding is of a "stationary" character: nodding, head-twirling, snaking, and U-shaped movements (Mason, 1993b, pp.201-202). She notes that longitudinal restless behaviour looks like hunting behaviour. Because of other aspects of its form, however, namely its persistence and fixity, she also holds that the meaning of restless behaviour before feeding time is not exactly the same as that of hunting behaviour. Stationary restless behaviour always involves facing out of the cage. Therefore, Mason thinks that it is derived from attempts to escape (Mason, 1993b, pp.221-222).

What Mason does - at least according to this reconstruction - is relate various forms of behaviour (before and after feeding time) of various mink (farm mink and wild mink) to each other because of assumed meanings of these forms. She relates pacing by farm mink to

hunting by mink in their natural environment in a twofold way. Because of the longitudinal aspect of pacing, she assumes that its meaning is related to hunting and because of its persistence and fixity, she sees it as an abnormal variant of hunting. *She has not demonstrated, independently of the observed behaviour (pacing), that pacing is caused by the unfulfilled need for hunting; she sees pacing as an abnormal variant of hunting behaviour because of different aspects of its form.*

2.4 Interpretation and explanation

My overall conclusion with regard to the dispute about the welfare of farm mink is that scientific measurements and experiments alone are not decisive for the evaluation of the mink's behaviour as an expression of poor welfare. This evaluation also needs an interpretation of the mink's behaviour, either in experiments, in their natural environment, or on farms. Interpreting is primarily a matter of carefully looking at the forms of animal behaviour under various circumstances, and seeing these forms as expressing various meanings. I see the way in which Mason perceives mink as an example of such interpretative perception.

Scientists who acknowledge only the natural-scientific method of research might give two comments on such interpretative perceptions. First, they may say that such perceptions are just careful scientific observations. However, there is a difference between scientific observations in the usual sense and interpretative perceptions. Scientific observations are directed at giving descriptions of behavioural properties. Interpretative perceptions are perceptions of the form of the whole behaviour as expressing a meaning. Because of this difference, I prefer to speak of perceptions of animal behaviour conceived of as meaningful behaviour (see also the distinction between observations and perceptions made by Plessner in chapter VII.2). This way of looking at animal behaviour is similar to the perception of a work of art. Trying to understand the meaning of a work of art requires carefully looking, listening or reading, though not aimed at precise descriptions of its physical properties. *Similarly, interpretative perceptions of animal behaviour differ from descriptive scientific observations.*

Secondly, the comment might be that interpretative perceptions are just sources of scientific hypotheses; as such they are not relevant for the truth of the hypotheses, but belong to the context of discovery. These hypotheses must be tested in experiments in order to say whether they are true or not. In the case of restless behaviour of mink, the truth of Mason's interpretation of this behaviour must be tested by, for example, preference tests or comparisons between more and less confined housing systems. Actually, Mason's view can be reconstructed along such lines. One can say that she, on the basis of the character of restless behaviour before feeding time, only puts forward the hypothesis that the unfulfilled

need for hunting behaviour is the possible cause of this behaviour. According to her own words, this can and must then be demonstrated experimentally.

However, we saw that interpretations of animal behaviour are not only sources of experiments but also modify evaluations of experiments. Results of experiments can be contested in light of different interpretations of the performed animal behaviour. One can interpret an unwillingness to do a huge amount of work to attain swimming water as indicating that mink do not need swimming water that much or that they need swimming water very much but not always. The latter interpretation gives rise to a more specified hypothesis. The result of a test of this hypothesis, however, can also be interpreted in different ways that give rise to another, new hypothesis, and so on. *So, the comment that experiments must prove the truth of interpretations can also be turned upside down: whether experiments reveal the truth about the cause of a particular animal behaviour depends on one's interpretation of this behaviour.*

For two reasons I do not agree with Simonsen that interpretations of animal behaviour are purely personal. Firstly, scientists are able to agree about their interpretations, so that these can become intersubjective. For example, Wiepkema, Mason and the other consulted ethologists and philosophers all call a particular behaviour of wild mink "hunting behaviour". This agreement is not based on a demonstration of the cause of this behaviour, but is an agreement about its meaning.

Secondly, interpretations can be better or worse, depending on the way in which they are attained. In science, methodological procedures determine this way. In chapter IX I have formulated a few methodological principles for an interpretative animal science such as the procedure of the hermeneutical circle. The debate about the meaning of restless behaviour of farm mink before feeding time can also be reconstructed as following such procedures. At a more abstract level, I see this dispute as concerning two different behaviours and three meanings. The behaviours involved are hunting behaviour of wild mink and restless behaviour of farm mink. The three meanings are normal hunting, a normal variant of hunting, and an abnormal variant of it. Wiepkema and Mason agree about the meaning of hunting behaviour under natural circumstances so that they both call it "hunting behaviour". They disagree about the meaning of restless farm mink before feeding time. Wiepkema asserts that this is a normal variant of hunting behaviour under natural circumstances. Mason asserts that it is an abnormal variant of it and calls this behaviour "pacing". Whether this behaviour is a normal or an abnormal variant of hunting behaviour is similar to the question of whether a performance of a piece of music is bad or good. A bad and a good performance share some characteristics of the piece of music but differ in others. Likewise one can say as Mason does that because of its longitudinal form, the meaning of the mink's restless behaviour relates to that of hunting behaviour, but because of its persistence and fixity deviates from it. Just as the question of a good or bad performance of a piece of music is solved by applying common evaluative rules, the question of the meaning of animal behaviour can be solved by applying the rules of an interpretative method.

I do not intend to say that the meaning of animal behaviour as good or poor welfare is completely dependent on interpretations. My third reason for not agreeing with the personal character of interpretations is that they should not be in contradiction with observations of - causally or functionally explainable - physical and behavioural properties. One cannot interpret such properties in whatever way one wants. The interpretation of quiet behaviour of farm mink as poor welfare, for instance, is problematic because it contradicts the measured, normal heart rate, which is assumed to indicate no poor welfare. *Which of the assumed meanings is correct cannot be stated beforehand; interpretatively and natural-scientifically attained meanings should be brought into coherence with each other.*

CHAPTER XI

TOWARDS AN INTEGRATION OF INTERPRETATIVE AND
NATURAL-SCIENTIFIC APPROACHES TO ANIMAL EXPERIENCE

As concluded at the end of the conference about welfare of domestic animals, the conceptualization and knowledge of animal feelings are questions for further research into animal welfare. *This book, in which I have tried to develop a concept of subjective animal experiences and a method to know them, can be seen as a philosophical answer to these questions.*

Ultimately, the phenomenologists Merleau-Ponty, Plessner and Buytendijk have provided me with this answer. They consider the bodily instead of the personal, cultural and historical, way of being the foundation of experiences. Especially Plessner offers an elaborated philosophical concept of animal experience as *leiblich* experience, that is as bodily and *Umweltlich*-bound, here-and-now experience. This concept of animal experience can be seen as an elaboration of Merleau-Ponty's thinking about the experiencing human body, although Plessner's writings about animals were published before Merleau-Ponty's. Plessner sees personality, culture and history as founded on the human excentric positionality, i.e., on the human capacity to reflect upon their own experiences, body, and natural and social worlds. Although animals lack this capacity, they do have experiences but only currently lived ones, he asserts. Buytendijk has made more concrete Plessner's concept of animal experience; in his writings about and experiments with animals, Buytendijk understands animal bodies and behaviours as meaningful expressions of their experiences. A discussion of a few examples of Buytendijk's research formed the basis of my sketch of an interpretative method for studying animals. I compared such a method to the interpretative method of hermeneutics and the natural-scientific, explanatory method.

The first result of this comparison concerns the subject matter. The subject matter of hermeneutics is the personal, cultural and historical experiences and expressions of humans. *The subject matter of an interpretative study of animals, however, are impersonal animal experiences and expressions that are tied to the present Umwelt and bodily possibilities.* This specific subject matter has two consequences for the method of interpreting animals.

We understand human experiences and expressions within a personal, cultural and historical context. *The animals' species-specific way of life is the context within which we understand animal experiences.* The process of understanding animals is largely similar to the process of understanding humans. The species-specific way of animal life is comparable to the personal, cultural and historical way of human life. It also functions as an assumed whole of related meanings that we can know by understanding the meaning of particular expressions (the hermeneutical circle). In the case of animals, this means that the species-specific way of life of animals does not function a standard for the interpretation of particular

animal behaviour. We get knowledge of this way of life by interpreting various behaviours of animals of a certain species, either living in a natural environment, in laboratories, or on farms.

The second consequence concerns the absence of double hermeneutics with regard to animals. It is impossible to understand animals as they understand themselves. This impossibility is fundamental rather than practical, because the ground for it is that animals do not even have the capacity for understanding themselves. Animals have experiences but they do not know they have them; animal experiences just occur. *Therefore, our interpretations of animal behaviour are always anthropomorphic and never "from the animals' point of view".*

After this philosophy of animal experience, I thought it is time to apply this philosophy to a concrete issue, namely animal feelings of good and poor welfare. At the end of chapter IX, I formulated four principles of an interpretative approach to animal welfare. In the previous chapter, two contemporary debates about animal welfare have been discussed. Now, at the end of this book, I will evaluate the four principles in light of these debates. This will show whether an interpretative view on animals can be fruitful for animal welfare research.

1. The need for an interpretative view on animal welfare

The first principle is that, if one sees animal welfare as a subjective experience, then an approach that conceptually and methodically holds onto this subjective character should be developed. This is needed in order to make natural-scientific approaches theoretically and practically relevant. At the theoretical level, this need became clear in the discussion of the ethological animal welfare theories of Wiepkema, Toates and Dawkins. Toates very clearly said that his theory only explains animal behaviour as caused by positive or negative emotions, and that he assumes that these behaviours are emotional. This assumption refers to the argument from analogy that assumes that animals, like humans, have the capacity for experience. Also Wiepkema and Dawkins use this argument for saying that animals have subjective experiences. Many scientists criticize the argument from analogy. Tschanz, for example, criticizes it at two levels. The former concerns the existence of animal experiences; the latter the content of particular animal experiences. First he states that homologous structures in different organisms do not necessarily have the same function, in this case to generate experiences. The arms of humans and wings of birds are homologous structures but have different functions. Secondly he holds that similar processes in the neocortex caused by a pain stimulus certainly lead to various experiences of pain in humans, between humans and animals and between animals (Tschanz, 1997, p.19). *Philosophical arguments can make plausible the assumption that animals have the capacity to experience; an interpretative approach to animal behaviour can transform the assumption of particular animal experiences into a legitimate argument.*

At the practical level, the need for a different view from the natural-scientific view on animal feelings became clear in the discussion about the indirect physical measurements of animal feelings of welfare. The inference from physical measurements to animal feelings is said to be legitimate because of an analogy between humans and animals with regard to feelings. This is a weak argument in light of the view which stresses the physical aspect of animal welfare. This last view uses the same physiological and behavioural measurements for saying that animals are in good or poor welfare, irrespective of associated feelings. *In order to say that animal feelings of welfare are involved, one needs something other than physical parameters of good and poor welfare.*

Many ethologists see animal experiences as separated from animal behaviour, namely as causes of behaviour. I do not see them as separated from, and certainly not as causally related to, behaviour. I conceive of animal experiences as the expressed meaning of behaviour. An interpretative view on animal behaviour concerns this aspect. In another aspect, animal behaviour is a physical phenomenon that can be causally or functionally explained. Animal behaviour is what Merleau-Ponty, Plessner and Buytendijk call an “ambiguous phenomenon”.

Such a view is already implicitly present within animal ethology. For instance, the terms “foraging”, “hunting” or “restless” behaviour used in the debate about farm mink are already interpretative terms. These terms say that the mink are doing something, that the behaviours of the mink have certain meanings. Even the scientists who stress a natural-scientific approach to animal welfare do not contest the use of such words. The proposed method for interpreting animal behaviour can be seen as an explication and justification of this way of speaking about animals within ethology. I showed that Mason’s work with farm mink already used such an interpretative method, undoubtedly unwillingly. Although Mason insists on causal explanations in order to identify stereotypic behaviour as abnormal and poor welfare, she herself does not identify in this way restless behaviour of mink before feeding time as abnormal behaviour. She sees some aspects of the form of this behaviour as expressing a meaning that she relates to hunting; other aspects of this form she sees as expressions of a meaning negatively related to hunting.

2. Not from an animal’s point of view

The second principle was that we have to give up the animal’s point of view as the ideal of animal welfare science. We have to acknowledge that our interpretations of animal behaviour as good or poor welfare cannot but remain our human interpretations.

“The animal’s point of view” is a much quoted phrase within animal welfare science. This phrase means that the concept of animal welfare refers to a situation that the animals themselves experience as good or bad. Hence, the ideal of some animal welfare scientists is

to gain knowledge of the animal's view on their situation. As Dawkins, the original author of this phrase, says: "The aim throughout will be to attempt to understand how much of what happens to animals actually matters to the animals themselves" (Dawkins, 1990a, p.2). My concept of animal experience clearly implies an animal's view on their situation, namely a view from their own body conceived of as *Leib*, as experiencing body. Undoubtedly, the proposed interpretative method also intends to say something about animal experiences. It is impossible, however, to achieve this aim. Animals are not able to reflect upon their own experiences and to confirm their meaning as understood by us humans. The interpretation of animal behaviour as expressing experiences is necessarily a one-sided, solely human interpretation.

This does not imply that these interpretations are entirely subjective in the sense of strictly personal. As shown repeatedly, most natural-scientific approaches to animal welfare already assume that animals in particular situations have feelings of good or poor welfare. Only against the implicit background of agreed interpretations of mink's behaviour, for instance, will the results of a preference test be accepted as proof or disproof that mink need swimming water. One can see this background as a coincidence of subjective, personal interpretations. I do not resign myself to this current view on interpretations. *The aim of my method for understanding animal behaviour is to make this background explicit, systematic and argumentative so that it can become an intersubjectively agreed background.*

There is a further reason for not resigning oneself to a purely personal character for interpretations of animals. In the developed method of understanding, the animals themselves in a certain sense, are also one of the arguments for attaining such an agreement. The interpretation of farm mink's quiet behaviour as apathetic, for example, shows that physical measurements such as their heart rate are also relevant in order to come to an agreement about the interpretation of this behaviour. Animals are not only an argument in the form of physical, observable beings: when we understand animal behaviour, we see this behaviour as meaningful. I see the difference between longitudinal and stationary restless behaviour of farm mink as belonging to such a view on animal behaviour. These forms of behaviour are not important because they point to different properties, but because Mason supposes they express different meanings.

3. The role of species-specific behaviour

Within animal welfare science, the question of evaluating animal behaviour as indicative of good or poor welfare is often solved by species-specificity as a given standard. Species-specific animal behaviour is considered as indicative of good welfare. Therefore, the argument goes, the performance of non-species-specific behaviour or the impossibility to exhibit species-specific behaviour are indicators of poor welfare. My third principle was that species-specific behaviour cannot function as a given standard for understanding animal

behaviour as good or poor welfare. In chapter IX.2, I analyzed the different meanings of 'species-specific' and showed the problems of defining it. A descriptive definition raises the problems of determining *which* behaviours of *which* animals and in *which* environments can be said to be species-specific.

In the debate about farm mink, various meanings of species-specific behaviour were mixed up. In the dispute about the mink's need for swimming water, the meaning of 'species-specific behaviour' as behaviour in a natural environment was used. Wiepkema and Dunstone agreed that wild mink hunt along the waterside and on land as well. Wiepkema held that hunting on land is not indicative of poorer welfare than hunting along the waterside. Dunstone, by contrast, claimed that it may not be excluded that hunting on land is an expression of less welfare. The uselessness of natural behaviour as a standard to define 'species-specific behaviour' also showed up in the discussion about restless behaviour of farm mink before feeding time. Wiepkema considered this behaviour as a variant and good substitute for foraging behaviour under natural conditions. His opponents, however, who certainly also see foraging behaviour of wild mink as species-specific, considered restless behaviour an expression of poor welfare and probably not as species-specific and natural. In this discussion, another meaning of 'species-specific behaviour' also showed up, namely that of normal behaviour (because stereotypic behaviour is mostly seen as a type of abnormal behaviour). Mason gave a number of examples that show how hard it is to determine whether the same behaviour is normal or abnormal. For example, at which moment does dustbathing by hens on a grid floor become abnormal? The various problems in these examples are: the definition of 'species-specific behaviour' (natural or normal behaviour), the identification of behaviour as species-specific or not (especially of behaviour under unnatural, farming circumstances), and the evaluation of species-specific and non-species-specific behaviour (whether they are always expressions of respectively good and poor welfare).

My viewpoint is that the identification of a particular animal behaviour as species-specific is not a matter of descriptive properties but of interpretations of animal behaviour. In the debate about farm mink, we already found such interpretations, for example in the dispute about their restless behaviour before feeding time. Let us suppose that both Wiepkema and his critics are speaking about wild and farm mink perceiving their environment frequently. They differ in opinion about this behaviour regarding farm mink. Wiepkema sees this behaviour as a good substitute for foraging behaviour under natural circumstances. His critics see the behaviour of farm mink as an expression of the unfulfilled need for foraging behaviour. These different opinions do not depend on observations, because these are the same for both Wiepkema and his critics. Therefore, they are different evaluative interpretations of this behaviour of farm mink. I see the disputes about the various mink's behaviours, in the wild as well as on farms and in experiments, as disputes about different evaluative interpretations of these behaviours and, simultaneously, about the notion of what is species-specific for mink.

4. Return to natural-scientific views on animal welfare

At the end of this philosophical exploration, I return to the ethological theories of animal welfare discussed at the beginning of this book. In *Intermediate Reflections 1*, I concluded that these theories are unable to conceptualize animal welfare as subjective experience because they are natural-scientific theories, i.e., objectivating and causally and functionally explanatory. These theories explain animal behaviour as the effect of feelings of good or poor welfare based on the assumption that animal behaviour is emotional behaviour. In the debate about farm mink we saw that the same is assumed at the level of particular animal behaviour. An example is the identification of restless behaviour of farm mink before feeding time as normal or abnormal stereotypic behaviour. This turned out not to be a matter of the proven cause of particular, descriptive behavioural properties but of interpretations of this behaviour. Such interpretations are used to justify assumptions with regard to animal feelings of good or poor welfare. Therefore, I turned the usual argument upside down: only after having interpreted animal behaviour as an expression of good or poor welfare can this behaviour be explained by natural-scientific theories of animal welfare.

This does not mean that natural-scientific theories of animal welfare can only confirm interpretations. Scientific theories reveal a truth against the background of agreed interpretations. Interpretations and explanations have to confirm each other. For instance, if one sees restless behaviour of farm mink before feeding time as abnormal hunting behaviour, then the theoretically deduced hypothesis that the mink will go hunting if given the opportunity has to be tested. If they do not start hunting, this interpretation is false. Yet, this does not need to imply that such restless behaviour of the mink is normal and thus an indication of good welfare. One can still see this behaviour as abnormal. But then one has to propose another interpretation of that same behaviour as abnormal, reconstruct the previous experimental result in light of the latter interpretation, and propose new experiments. The dispute about the mink's need for swimming water is an example of such a process.

In chapter IX, I described three types of natural science of animals and their relationship to interpretations of animals. Some of these we can also find within animal welfare science. *Only in a strict sense can one say that there are two competing paradigms within animal welfare science: one denying and one recognizing animal feelings as the subject matter.* Although none of the animal welfare scientists discussed here denied subjective experiences of animals, not all of them recognized them as subject matter for animal welfare science. Broom, for instance, did not deny that animals have feelings. On the contrary, he even says that suffering, a subjective experience, is the most important element of poor animal welfare. But animal feelings cannot be studied scientifically, Broom and other animal welfare scientists said. Therefore, they consider it undesirable to define animal welfare in terms of feelings. This line of reasoning is similar to that of one type of behaviourism: some

behaviourists say that subjectivity cannot be studied scientifically; other behaviourists deny any subjectivity of animals (see chapter III.2.1). Other animal welfare scientists, by contrast, recognize animal experiences as subject matter for animal welfare science, whether directly (Duncan) or indirectly (Sandøe and Simonsen).

In a less strict sense, these two views do not have to compete. Animal welfare scientists like Broom may say that they only study one aspect of animal welfare, namely its physical aspect, while other scientists study the animal feelings of welfare, if this is possible. For instance, they may say that a high adrenal activity concerns just one aspect of animal welfare. Similarly, a mechanical view on walking concerns just that aspect of walking, besides the fact that the way in which we walk is a personal expression as well. *In this less strict sense, natural-scientific and interpretative views on animal welfare are not competing paradigms but complementary disciplines within animal welfare science.*

In the example of welfare of farm mink, however, we saw that viewing a high adrenal activity as an expression of poor welfare necessarily implies an evaluative meaning of this measurement. In the same way, one cannot say that someone is walking badly on the basis of only a mechanical description of his motions. Animal welfare scientists who see animal welfare as involving feelings, introduce this evaluative meaning of 'welfare'. I have argued that the assessment of high adrenal activity as an indicator of poor animal welfare depends on the evaluative interpretation as expressing feelings of poor welfare. *Thus, the measurement of physical animal welfare is not complementary, in the sense of indifferent and equivalent, to the interpretation of animals as expressing welfare. Both assessments of animal welfare should be in coherence with each other.*

5. Coherence between interpretations and natural-scientific knowledge

The process of bringing interpretations of different animal behaviours into a coherent whole is called "hermeneutical circle". *The process of bringing interpretations of animals as being in good or poor welfare together with natural-scientific knowledge is a similar circle: going to and fro between both.* The interpretation of quiet behaviour of farm mink as apathetic can be seen as an example of such a circle. The normal heart rate of quiet mink contradicts the assumed internal restlessness of these animals. This physiological measurement challenges the interpretation that these mink are apathetic and in poor welfare. This does not need to imply automatically that quiet mink are in good welfare. As the researchers involved correctly say, quiet mink only seem to be in less poor welfare than restless mink. From an interpretative point of view, different replies to this challenge are possible. For example, one can change the meaning of 'poor welfare' in such a way that a new meaning does not contradict a normal heart rate, other physical measurements, and other interpretations that are supposed to be indicative of the mink's welfare. As said before, if animals are in poor welfare, this must be observable (although I would not restrict 'observable' to natural

scientifically observations). This change of the meaning 'poor welfare' is possible because poor welfare can be seen as an umbrella concept covering more situations than apathy alone.

Bringing together interpretations and natural-scientific knowledge also implies that it must be possible that physical measurements falsify the interpretation that quiet mink are in poor welfare. Otherwise one can forever hold onto a dogmatic or personal interpretation. The moment at which an interpretation of poor welfare changes into one of welfare is not a matter of simple falsification by physiological and behavioural measurements. These measurements of poor animal welfare and their founding scientific theories are not sufficient for saying that particular animals are in poor welfare, just as interpretations alone are insufficient. The change of interpretation is a matter of consensus about interpretations as well as physical measurements, because both are assumed to refer to animal welfare. Within such a renewable coherent whole, interpretative and other judgements about the mink's welfare are and can be justified. *Therefore, although natural-scientific theories and measurements are not sufficient, they are necessary in order to attain better interpretations of animal behaviours and bodies as expressions of good or poor welfare.*

SUMMARY

For many people, laypeople as well as animal scientists and philosophers, animal welfare involves animal feelings. Scientifically, however, animal feelings are problematic. In the concluding remarks of a conference about the welfare of domestic animals in 1994, for example, two questions for further research were proposed: (1) What is the nature of feelings? and (2) Why is it not possible to measure the occurrence of feelings in animals directly? This book intends to give a philosophical and scientific-theoretical answer to both questions. The two questions are transformed into the following: (1) How can we conceptualize animal experiences such as feelings or emotions in a philosophically and theoretically sound way? and (2) Which method is appropriate to gain knowledge of animal experiences?

These questions are answered first by examining two ethological animal welfare theories, namely that of Wiepkema and Toates and that of Dawkins. These theories have animal feelings of welfare as their subject matter. My conclusion after examining these welfare theories is that they do not conceptualize and obtain scientific knowledge of animal feelings at all. These theories only study animal behaviour and physical aspects of animals and assume that these aspects refer to animal feelings of welfare. Because they are applications of animal ethology, these theories stick to the natural-scientific method of research. The use of this method leads to two different conceptualizations of animal welfare feelings. The theory developed by Wiepkema and Toates conceives of animal feelings as unobservable, internal causes of animal behaviour. In Dawkins' theory, seen as a logical-behaviouristic theory, "animal feelings" are names for particular forms of law-governed animal behaviour. My comment on both theories is that animal experiences are solely theoretical concepts or designations. These ethologists simply assume rather than demonstrate that particular animal behaviour is caused by or associated with animal experiences.

Wiepkema, Toates and Dawkins also acknowledge this. In order to say that animal behaviour refers to subjective animal feelings, they use the argument from analogy that states that because there are similarities between human and vertebrate animal behaviour and (neuro)physiological processes, it is plausible that animals have similar experiences as humans. However, like most animal welfare scientists, they correctly say that this is an unscientific argument. My final conclusion is that it is impossible to infer subjective animal experiences from objectively studied, physical and behavioural phenomena.

This conclusion is in line with the main thesis of philosophical hermeneutics. This thesis states that subjects cannot be studied as such in a natural-scientific way because the concept of 'subject' demands a different, non-objectivating method of knowledge. Philosophical hermeneutics can perhaps answer the question of a proper concept for subjective animal experience, although animals are not the explicit subject matter of this discipline.

Two founding fathers of 20th Century hermeneutics, namely Dilthey and Gadamer, are studied concerning the concepts of 'subject' and 'experience'. My conclusion is that the subject-philosophy of these two philosophers is primarily a philosophy for human subjects, thereby more or less excluding the possibility for animal subjectivity. Since Gadamer does not consider animals linguistic beings, he seems to exclude animal experience. However, he opens up the way to a philosophy about animal experiences as bodily experiences. Dilthey, in his later writings, follows the same line of reasoning as Gadamer emphasizing the common, cultural-historical meaning of experiences and their expression and understanding, which is typically human. In his early writings, however, Dilthey underlines the individual, subjective aspects of experiences in humans and higher animals. Although he later does not reject this psychological foundation of experience, he simply fails to ask: what about animal experience? thereby evading the question of how we as cultural and historical humans can understand non-cultural and non-historical animal experience. The line of reasoning these two philosophers have in common is that they say: if animals have experiences, then these experiences must be similar to human experiences. Actually, their subject-philosophy is a philosophy of human subjectivity which can hardly cover animal experiences.

Rather than trying to find a philosophical concept of human experience that can cover animal experience, a third possibility between human experience and the absence of experience is looked for. The philosophies of the phenomenologists Merleau-Ponty and Plessner which emphasize the bodily character of human and animal experience offer this possibility.

Merleau-Ponty's philosophical phenomenology seems to promise a conceptualization of bodily animal experiences. The conclusion of his analysis of human perceptions is that not the linguistic but the bodily way of human being is the foundation of human perceptions and experiences. He sees the human body as ambiguous: both physical and conscious (i.e., experiencing) and he assumes this philosophical analysis adequate to cover animal relationships with their environment. Inspired by the difference that Merleau-Ponty makes between the bodily comprehension of humans and the hermeneutic understanding of person, I propose the concept of the impersonal meaning of animal experience as an alternative of the personal, cultural and historical character of human experience.

Because Merleau-Ponty repeatedly says that all living beings are intertwinings of physical body and consciousness, he seems to say that plants and micro-organisms are also experiencing beings, thereby making no distinction between animals and other non-human organisms.

Plessner offers the required specification. He asserts that human as well as animal relationships to their environment are mediated by a self. To him, the human relationship to the environment is mediated by language, personality, culture and history. What Plessner calls a "double human self" - namely a bodily bound self and a reflective "I" - is the foundation of this relationship. He further states that human personality, culture and history give form to bodily experiences. Animals, by contrast, cannot distance themselves from their

own body and bodily-bound self. Animals do not have the capacity of reflective, linguistic, personal or cultural-historical experience; they have only bodily and environmentally tied, here-and-now experiences. Thereby, Plessner provides an elaborated, philosophical concept of animal experience that is *not* similar to the concept of human experience.

Buytendijk, who worked as an animal psychologist around the middle of this century, can be seen as applying Plessner's concept of bodily and environmentally tied animal experience to research. He fully adopted Plessner's philosophy of animals and humans and in his own animal experiments and in discussions of those performed by others, he adopts the view that animal behaviour is an expression of their experiences which are bound to the present *Umwelt* and bodily possibilities of the animals involved.

When comparing the method that Buytendijk used with the hermeneutical and phenomenological method of understanding human experiences, one can see that:

- (1) Unlike the meaning of human experiences, the meaning of animal experiences is not personal within a cultural-historical context. This is a vital, impersonal meaning that is bound to momentary bodily perceptions and actions in the present *Umwelt*.
- (2) We can understand this meaning within a species-specific context.
- (3) This species-specific context is not given beforehand as a standard for interpreting animal behaviour. We attain knowledge of this context by interpreting the meaning of expressions of particular animals of a species under various circumstances.
- (4) Because animals, contrary to humans, are not open to others, we cannot share with them our knowledge of the meaning of their experiences.

The conclusion of these comparisons is that our interpretation of the meaning of animal expressions always remains, conceptually and methodically, our human interpretation. Whether our interpretations of the meaning of animal expressions are more or less adequate depends on whether they meet the usual standards of hermeneutical understanding: coherence between interpretations and accordance with biological knowledge of the animals involved.

Finally, two contemporary animal welfare debates are discussed. The first (a conference about welfare of domestic animals in 1994) is a philosophical and theoretical debate about the concept of animal welfare and the method for measuring it. The two main issues at that conference were: are feelings a fundamental aspect of animal welfare? and how can we measure animal welfare? The second question turned out to be the most important. Some participants said that feelings, although important, should not belong to the scientific concept of animal welfare because they cannot be measured; physical indicators of welfare are sufficient for speaking of welfare. Other participants held that we can indirectly know feelings by measuring physical and behavioural indicators. However, most of these indicators are the same as those used by animal welfare scientists who claim that they measure only the physical aspects of animal welfare, irrespective of associated animal feelings. Animal welfare scientists who stress feelings of welfare simply add that these observations refer to the animals' feelings of poor welfare. One participant of the conference argued that physical

indicators of animal welfare cannot be used as indicators of feelings of welfare too; these feelings have to be demonstrated independently of physical indicators of welfare.

In the second debate about welfare of farm mink, the validity of the argument that feelings have to be demonstrated independently has been exemplified. The question in this debate was whether some particular behaviour of farm mink, called “stereotypic behaviour”, counted as expressions of poor welfare. All participants in this debate tried to demonstrate or contest this by means of natural-scientific experiments. A critical reading of this debate demonstrates that scientists only agree upon the designs and results of such experiments if they also agree upon the interpretation of the meaning of the animals’ behaviour. Almost all the conclusions from experiments regarding mink’s welfare can be contested from the point of view of another interpretation of the mink’s behaviour. This debate shows the primacy of the interpretation of animal behaviour as an expression of experiences over results of natural-scientific experiments. This primacy requires an explicit method for interpreting animal behaviour in order to reach an agreement about various interpretations. The type of research into welfare of farm mink as used by one of the participants in this debate is considered as containing elements of such an interpretative method. Contrary to her own intention, the researcher does not see the mink’s behaviour only as a causal effect of fulfilled or unfulfilled needs, but primarily as meaningful behaviour. By carefully looking at and comparing the form of the behaviour of farm mink and wild mink, she tries to interpret their behaviour. The aim of these interpretations is not to look into the animals’ heads in order to see experiences as causes of animal behaviours. I state that the aim is to attain a coherence between the assumed meanings of various animal behaviours. This coherence provides us with a background for natural-scientific explanations of these behaviours, experimental results and other physical data.

At the end of this book, the four principles of animal welfare research as an integration of interpretative and natural-scientific research are evaluated:

- (1) In order to study animal welfare as subjective experience, a view is needed that conceptually and methodically maintains animal welfare as subjective experience. Saying that animal welfare is not only physical but primarily a matter of feelings, requires something other than physical measurements of welfare. The debate about farm mink shows that scientists studying animal welfare from a natural-scientific angle already take this view, albeit implicitly. The method developed above can make the interpretation of animal behaviour a matter on which ethologists and other animal scientists can attain an argumentative consensus.
- (2) Although the concept of animal welfare is about what matters to the animal, the animal’s point of view should be abandoned as the criterion of knowledge of animal experiences of welfare. Animals are not able to agree upon interpretations of their behaviour. Hence, these interpretations always remain human interpretations.

- (3) The species-specificity of animal behaviour cannot function as the criterion of animal welfare. Whether a particular animal behaviour is species-specific or not depends on one's interpretations of various behaviours of animals of a certain species.
- (4) Interpretations of animal behaviour as indications of good or poor animal welfare should not be in contradiction with natural-scientific research data that also refer to good or poor welfare. They should be brought into coherence with each other. Natural science studies the physical aspect and interpretative science the expressive aspect. These two types of research are not independent of each other; they both rely upon background knowledge regarding what counts as good or poor animal welfare. In some cases the results of both types of research can contradict and challenge each other. I argue that one cannot say beforehand which of these views is correct; this can only be decided upon by trying to attain a new consensus about interpretative and natural-scientific assessments of the animals' welfare.

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Curriculum vitae

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