SA constructions with animal causees represent a special sub-class. These constructions (typically with horses) are open for verbs that cannot be used in SA constructions with human causees. Horses can thus be trottled, jogged, cantered, paced, jumped, ambled, galloped and pranced. The verbs \textit{trot, jog, canter, pace, jump, amble, gallop} and \textit{prance} can enter into SA constructions with animal causees owing to the fact that in the animal domain they are deprived of information about the inner state of the executor of the movement, which testifies to the specificity of animal agency. In what follows arguments in favour of positing animal agentivity as a special sub-class of agentivity will be offered.

Animals represent a sub-class of agents. They carry out movements and, from this point of view, they are bearers of primary responsibility for their execution (this responsibility is a constant feature of agentivity, cf. DeLancey 1985). In contrast to humans as conceptualizing, reasoning creatures, animals lack a self-conscious, cognitively aware processing of movement – at least not in the extent as present in humans. In spite of this fact, animal movements pass the diagnostic tests used for determining agentivity in humans. The following discussion will attempt to show that standard agentivity tests (cf. Jackendoff 1972), i.e. questions with the verb \textit{do}, clauses of purpose, imperatives and compatibility with adverbs like \textit{purposefully} or \textit{deliberately}, when applied to animal movements, must be given a modified interpretation.

(a) Questions with “do”:

Animals execute movements, i.e. they “do” them. This enables us to form questions with \textit{do}:

What did the horse do? The horse galloped.

(b) Imperatives:

The absence of self-conscious awareness in animal actors explains why imperatives have a special status. Commands directed at animals rest on a regular connection (established via association) between a certain stimulus and a corresponding reaction. From this it follows that the possibility of the formation of imperatives is highly restricted. Trained higher animals such as dogs can be ordered \textit{to fetch} (or \textit{to lie down}), e.g. Consider:
I am not quite sure how to train my dog. Whenever I say ‘sit’ he doesn’t listen but if I have a biscuit in my hand he does it straight away. (BNC)

(c) Clauses of purpose:
Animal movements can be directed at achieving a certain aim. For example, motor-plans of movements can incorporate a built-in spatial point representing the spatial goal: The horse galloped to the stable. The dog ran into the house. That is, also animals can execute movements “in order to” achieve a desired aim (e.g., an intrinsically purposeful activity such as chasing can be pursued not only by humans but also by animals, hence dogs can chase after cats). This aspect of meaning enables us to form clauses of purpose: The dog ran to the garden to catch the cat. The horse galloped to the stable to escape the rain. Consider also the following examples:

When observing the horse in the stable, note the following: Does the horse come to the stable door to investigate you, and perhaps give you a friendly nuzzle? (BNC)

A herding stallion lowers his head to threaten his mares, and lifts his feet high. (BNC)

The possibility of ascribing the feature ‘purposefulness of an action’ to animals does not, of course, indicate that, under such circumstances, their behaviour is “more agentive”. True enough, one can say that, e.g., A hare ran to the woods in order to escape its hunters or one can use the modifier purposefully as in the following sentence:

/b.../ but we dragged dad away and with the dog purposefully trotting between smells jogged the high-hedged winding half-mile to the headland /.../. (BNC)

However, the purposiveness of animal motion has a different status from that of human motion because it is not accompanied by the capacity to reason about (in the sense “to be consciously aware of”) its purpose. The absence of a conscious part in the processing of the movement (the movement is an automatic reaction to a stimulus) means, also, that the animal is not consciously aware of the stimulus and the purpose of the movement it executes. The fact that an action is aimed at achieving an aim does not have to be tied to the presence of fore-thought. According to Hampshire (1963: 413), “the concept of purpose, like that of desire
and impulse, is not essentially a thought-dependent concept.\textsuperscript{38} From this point of view, even purposeful animal movements do not deviate from the standard, fixed pattern of animal behaviour. Cf. the following example with \textit{instinctively} and an explicit spatial goal of the movement:

\begin{quote}
(10.5) In the case of the hamadryas baboon—a species closely comparable to the gelada in adaptations and sociobiology—the female instinctively runs towards the male when barked at. (BNC)
\end{quote}

Kenny (1975: 21) observes that animals do intend to do various things in the sense that they voluntarily perform actions. But they do not act intentionally in the sense that they intend a goal which is the reason for their action. In other words, although animals carry out certain movements in order to achieve a certain aim, they still do not act for a reason. Kenny holds that only those beings who have the ability to give reasons, have the ability to act for reasons (p.20). As Searle (1983: 101) puts it, when a dog is running around the garden chasing a ball, he is performing the intentional action of chasing the ball, but he cannot describe himself. In other words, what is missing in animal actions is a self-conscious part.

Given the facts adduced thus far, it appears that although clauses of purpose explicitly present the purpose of an animal movement, the positing of the purpose is not, by itself, a signal of a deliberate purposiveness of the animal action. Let me substantiate this claim by appealing to the fact that clauses of purpose are used in reference not only to animal movements but also to human instinctive or reflex movements (needless to say, clauses of purpose may also express deliberate, carefully planned purposes of human actions), which are underlain by a relatively very low degree of their mental processing, including the mental processing of the purpose of the movement. The purpose is, in this type of movement, tightly linked to (in fact, it is conditioned by) the antecedent stimulus. Therefore, the pre-programmed part of the motion is present in the semantic content of \textit{instinctively} in both human and animal motion. Cf.:

\begin{quote}
(10.6) She sat down beside him, instinctively putting her arm out to support him, but he jerked forward /.../. (BNC)
\end{quote}

\textsuperscript{38} Therefore it does not come as a surprise to learn that Rescher (1966: 218) takes the modifier \textit{automatically} as forming a member of the natural pair ‘automatically – consciously’.
The adverb *instinctively* is, not surprisingly, often attached to human movements involving a relatively simple kinetic pattern (one can lower one’s head instinctively/move instinctively/duck instinctively/turn away instinctively, etc.), cf.:

\[(10.7) /.../ and before he could stop himself Graham instinctively jerked his hand off the pad. (BNC)\]

This is not to say, however, that movements requiring a high degree of conscious mental processing of their execution (e.g. agentive locomotory movements traversing a relatively long path towards a definite spatial goal) cannot be described as “instinctive”. In fact, one can “instinctively” carry out a movement with quite an elaborate physical pattern consisting of a series of kinetic phases:

\[(10.8) Instinctively, she headed for the door that led out into the garden. (BNC)\]
\[(10.9) /.../ Wilson instinctively tucked her own swollen legs more securely under her gown and covered her enormous belly protectively with her arms. (BNC)\]

It is worth noting here that the feature ‘self-consciousness’ present in human agentivity does not exclude the possibility of using the adverbs *instinctively* and *consciously* (used in reference to human actions) as contradictory expressions. Consider the following example:

\[(10.10) This will produce different responses as both people and animals around her may react differently to each ‘phase’. The woman is quite capable of using these varying qualities to draw out particular types of response; she may do this instinctively, or consciously, and for a variety of reasons. (BNC)\]

This contrasted use of the two adverbs cannot be taken as evidence of their semantic incoherence. Rather, it should be evaluated as underlain by the different semantic values of the adverbs when used in reference to human agentivity. The adverb *consciously* expresses a relatively higher degree of the mental processing of the control over the movement, whereas *instinctively* expresses a relatively lower degree of this control. In other words, *consciously* as used here does not refer to the semantic value which represents one pole on a strictly bipolar axis, with *instinctively* taking up the other pole. In the light of these facts, it does not
come as a surprise to learn that, in the human domain, the adverb *unconsciously* may form an antonymous pair with the adverb *deliberately*, cf.:

(10.11) If someone else is annoying us either deliberately or unconsciously, then we have to talk to them to explain the effect they are having on us. (BNC)

The adverb *deliberately* cannot be put on a par with the adverb *purposely*, although both the adverbs express a high degree of the mental processing of the movement. *Deliberately* is a backward-looking type of adverb in that it refers to the mental processing of the movement with respect to its instigation and control over its course, whereas *purposely* (*purposefully*) is a forward-looking adverb in that it refers to the mental processing of the movement with respect to the desired aim.

(d) The adverbs *deliberately* and *purposely* (*purposefully*):

Interestingly (and, at the present stage of the discussion, maybe surprisingly), the adverbs *deliberately* and *purposely* (*purposefully*), which presuppose a relatively high degree of mental processing of the impulse instigating the motion (and thus are conceptually incoherent with the absence of conceptualizing awareness in animal agentivity), may occasionally be used in reference to animal actions, cf.:

(10.12) The truth is that real man-eaters, those tigers that deliberately and consistently hunt human prey, are extremely rare. (BNC)

(10.13) This may lead to the whole group moving, tugged along by a complex web of bonds. Except in the case of the stallion deliberately herding his mares, this is not a question of dominance or bullying. (BNC)

(10.14) This time the otter doesn’t attempt to eat the fish in the water, but sets out purposefully for the shore, to disappear out of my view below the bank. (BNC)

(10.15) A cat may approach its human owner and purposely make a nuisance of itself in a way that it has learnt will cause anger. (BNC)

In the face of the possibility of using these adverbs to specify animal actions, one may maintain that the compatibility of these adverbs with animal actions is, after all, a signal of the fact that animal actions are
linguistically rendered as incorporating a certain degree of self-awareness – particularly in view of the fact that the concept of awareness itself is a matter of degree. Awareness can be, e.g., “deep”, “full”, “dim”, “increasing”, “sufficient” or “profound”. This intuitively appealing idea is, at first sight, justified and can be argued for by appealing to the anthropomorphism in language. Animals can perform movements (and actions, in general) “deliberately”, hence can be attributed properties typical of humans. As is well known, syntax is anthropocentric. Skalička (1962) has observed that the most important principle is “das Aktionsprinzip, d.h. eine Verbindung eines Agens (‘Subject’), einer Aktion (‘Prädikat’), bzw. noch eines Patiens (‘Objekt’), eines zweiten Patiens (‘das zweite Objekt’) und der Umständen (‘Adverbiale des Platzes, der Zeit’ usw.). Dieses Schema paßt ausgezeichnet auf Sätze, die eine menschliche Handlung anzeigen. Sie wird aber auch in anderen Sätzen angewendet” (1962: 127). Animals are executors of movements (and of actions) and are syntactically treated in the same way as humans. They are thus admitted into the subject position, which is prototypically reserved for human agents.

Another argument in favour of positing the linguistic relation between human actors and animal actors as based on equivalence derives from the analysis of semantic roles and their mappings to syntactic positions. According to Hajičová (1979:187), there is “no need to distinguish between the Actor and some other participant function with a verb the frame of which contains a single case; the distinction, if any, is given either by the features of the concepts involved (e.g. animate vs. inanimate) or by the lexical content of the verb (activity vs. state etc.) and has nothing to do with the distinction in the functions of participants as linguistic units.” Seen from this perspective, both humans and animals function as Actors and the differences between them may be taken as belonging to factual knowledge rather than to linguistic structuration. A similar standpoint is taken by Daneš (1968), who pointed out that “syntactic meanings” (i.e. semantic roles borne by the participants in certain syntactic positions) are values that are posited at a higher level of abstraction and that it is the level of linguistic meaning that is decisive, not the level of gnoseological-logical content. It seems, then, that owing to “the hierarchical dominance of the grammatical form” (Daneš 1968:65), animal actors can be put on a par with human actors.

The tentative hypothesis of the linguistic equivalence between human agency and animal agency receives independent support also from certain aspects of the linguistic structuration in classifier languages. More specifically, predicate classifiers in predications involving verbs
of motion, position, handling and conveyance (e.g. “carry” and “give”) never employ the human/nonhuman distinction and only distinguish animate beings from inanimate ones (on this see esp. Croft 1994).

However, one cannot overlook certain facts that limit, to a certain extent, the validity of the hypothesis that animal actors are linguistically treated in the same way as their human counterparts. Although verbs denoting animal actions are compatible with adverbs of the deliberately type, the British National Corpus does not contain a single example of an animal action modified by means of the adverbs intentionally (unintentionally) and voluntarily (involuntarily), which is an indication that animal agency should be kept apart from human agency. Intention in humans involves self-awareness and thus it also involves awareness of intending (Fleming 1964: 315). Wisdom (1960: 590) points out, however, that being aware is different from knowing because the latter presupposes the ability to conceptualize. And Hintikka (1962: 35) adds that “people are assumed to intend (and hence to know) the reasonable and probable consequences of what they knowingly do.” Intentionality is also taken as a constitutive feature of human agency in Davidson (1971).

Animal actions, by contrast, do not rest on the knowledge of the intention and the knowledge of the consequences of the action (therefore animals do not “murder” but merely “kill” other animals). This is not to say, however, that animals cannot carry out actions in pursuit of a certain aim. In order not to starve to death, one animal may kill another animal or a horse may come to the door of the stable to have a look at the visitors. This is, then, the reason why animal movements may be modified by means of adverbs of the purposely/deliberately type. These adverbs do not refer to the presence of self-conscious forethought, but merely highlight the presence of a goal (purpose). To substantiate this observation, let me adduce an example in which the adverb purposely refers to a process that “happens” to an animal rather than “is executed” by it:

(10.16) Sleep is also a time when some animals purposely conserve energy because it would be wasteful not to do so. (BNC)

Purposely expresses the fact that the animal’s body is a mechanism operated by its inner principles, which function as “intelligent” triggers of certain bodily processes. (By way of digression, this is a manifestation of internal causativity of the sort different from the one in which the triggering principle is the will of an animate being.) Consider the following example, in which the phrase deliberately disobedient means simply “to refuse to carry out an order”:
(10.17) Although there is no treatment, at least you can adjust your training routine accordingly. Otherwise, you may be misled into supposing that your dog is either being deliberately disobedient or simply stupid. (BNC)

Here, *deliberately* does not express the animal's self-conscious processing of the refusal, but only foregrounds the animal's behaviour, which is a mere reaction to certain stimuli (hence it cannot be labelled as “deliberate” in the sense “involving a self-conscious forethought that foresees the possible consequences”). In other words, the adverb, as used here, does not point to the presence of the conscious processing of the action as is the case in human actions. Given the fact that deliberate actions are commonly described as involving the agent’s forethought that covers not only the execution of an action itself but also its desired effects and possible consequences, this use of *deliberately* seems, at first sight, to violate the rules and patterns of behaviour in the animal world. The violation is, however, intended and has a specific function: the use of *deliberately* in this context is a signal of the projection of the human world into the animal world (which is a kind of personification of the animal). The function of the projection is to present the speaker’s emotive evaluation of the situation. In other words, the speaker’s evaluation is effected via the shift in the lexeme’s meaning.

In sum, the discussion has shown that the diagnostic tests commonly used for determining agentivity have a specific status, reflecting the specific status of animal agentivity:

(a) The possibility of forming commands is highly restricted.
(b) Adverbs that, in the human domain, denote the presence of the self-conscious processing of the action are used merely to highlight the presence of purpose.
(c) Clauses of purpose do not have to express the purpose of an action based on self-conscious reasoning but may also present a purpose that is not tied to the intentionality of the event. In actual fact, clauses of purpose also have a special status in the human domain. Note that one can say, e.g., *John slept till eleven to recover* – here we have a purpose, but not an intentional action (sleeping is a process not subject to one’s conscious, deliberate control). This sentence is used by Hlavsa (1982: 26) to demonstrate the rather vague limits of certain verbal classes (more specifically, of certain non-agentive verbs).39

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39 In this connection, it may be interesting to note that Frankfurt (1988: 73) takes physi-
Hajičová and Panevová (1984: 167) also observe that adverbials of purpose do not depend on intentional events (John fell ill in order not to be punished for his sins; He did not understand me, in order to avoid the responsibility). This is not to say, however, that in such cases the purpose does not relate to the person’s intentional acting: the purpose relates to an act that is not part of the event denoted by the verb but that is antecedent to it. The aim of this prior act is to influence the inner mechanisms that effect the operations of one’s body and mind and that are directly responsible for the occurrence of the (desired) events encoded in the verb. Consider, e.g., the following example illustrating the function of an intentional act (ignoring someone) carried out to induce the desired event (falling in love) that falls outside the operation of one’s will:

(10.18) No: if we want them to fall in love with us, we’ll just have to ignore them, and hope they don’t go away. (BNC)

The immediate and necessary causes of the desired events are those inner mechanisms that are not expressed overtly but are present in the agentive qualia of the verbs in question. That is, the external agent’s will cannot be a direct and necessary cause of the patientive causee’s “falling ill” (“not understanding”, “sleeping till eleven”). In concrete terms, the causer can facilitate the onset of such events only indirectly, by affecting the circumstances that may activate the causative mechanisms in the patient’s inner self. In other words, what we have here is a causal chain in which the relation between cause and effect is (a) indirect (because it is mediated via the patientive causee’s inner state that represents the direct, immediate cause) and (b) not necessary (in the sense that it does not involve the actual occurrence of the effect). From this it follows that the relation between the causer’s activity and the intended change of state of mind in the patientive causee can only be based on attempting to achieve something.

The fact that clauses of purpose may refer to the last point in the causal chains (i.e. to the purpose) that do not involve a necessary and direct link between cause and effect is probably the reason why these clauses may in some cases be deprived of their basic function to denote the purpose of an action. Cf.:

(10.19) Hope also quarrelled with the vicar, and in 1854 left, not to return to the church for twenty years. (BNC)

ological processes as belonging to the broadly conceived category of purposive movements.
In sum, the linguistic presentation of the agentivity of animals reflects certain specific features of this type of agentivity, namely, the absence of ‘self-conscious instigation of the motion and control over its course’ and ‘conscious processing of the purpose of the motion and of its (possible) consequences’. The specific status of animal agentivity as it manifests itself in language may serve as evidence that, generally speaking, agentivity is a scalar concept (in support of this, one may recall the fact discussed in length above, namely, that some movements may contain intention in action but not necessarily prior intention). In view of this, it may be argued that ‘sentience’ (or ‘perception’) posited by Dowty (1991) as one of the features of the Proto-Agent, should, in the human world, be replaced by the feature ‘self-consciousness’ (‘self-awareness’), because ‘sentience’ (‘perception’), albeit pertaining to animacy (i.e. although covering the animal world, too), does not discriminate between human and animal agentivity.

Hlavsa (1982) observes that the difference between animal agentivity and human agentivity is reflected in language. He distinguishes between human agents and animal agents. He takes agentivity as a heterogeneous concept, as a cluster of features that are signalled in linguistic form. He distinguishes five types of agents: (a) human beings (including animals in fables, mythical figures, etc.), (b) human organizations, (c) animals or things manipulated by people (like horses, machines, tools or lipsticks), (d) forces of nature (like wind or falling trees) and (e) other things (he does not offer any example or any further specification in this category). The classing of animals with “things manipulated by people” is justified with respect to the fact that both animals and machines may be used as means of transport (in this case, English uses the same mode of expression to denote the instrumental position of both machines and animals: something may be “transported by plane/by horse” or one may “use a plane/a horse to transport something”, or one can “travel by plane/by horse”, etc.). In other respects, of course, the manipulation of animals by humans excludes the instrumentality of the type implied in the manipulation of machines: because a horse can “gallop of its own accord”, it can “be galloped”, but although a plane can “be flown”, it cannot “fly of its own accord”. Cf. one illustrative example with fly:

(10.20) I sighed with relief and quickly snatched up her jesses, wrapping them securely round my bottom two fingers. /.../ It took me a few minutes to feel brave enough to try her again. This time she more or less flew straight to me, and I felt confident enough to fly her another three or four times, each one
successfully/…/. I never fly the birds in bad weather, which means sometimes Dawn goes two weeks without a flight. (BNC)

Animals act as agents in that they execute movements induced by human causers but, due to the absence of a conscious part in the instigation of such movements and in the control of their course, animals’ movements cannot be brought about by means of directly imposing the causer’s (prior) intention onto the causee’s intention (in action) as is the case in SA constructions with human causees. Since animal agentivity is devoid of conscious reasoning, the external causation of self-agentive movements of animals includes manipulation, whether indirect (not involving physical contact) or direct (involving physical contact). Cf.:

(10.21) The scientists ran the mice through the maze. (meaning “the scientists caused the mice to run through the maze”)
(10.22) John ran the horse to the stable. (meaning “John caused the horse to run to the stable”)

The verb run may also be used with horses in the sense “to enter a horse for the race”:

(10.23) Seb was riding Grye beside the light wagon, discussing with Carrie the next race in which he intended running the horse. (BNC)

In this “horse running contest” scenario, the causing event and the caused event do not display the type of overlap typical of situations expressed by lexical causatives denoting caused motion. The connection between the two sub-events is loosened (i.e. is indirect) in that it involves a mediating event. Nevertheless, the prototypicality of the scenario makes it possible to present the situation in a compact syntactic construction (i.e. as a single event) in spite of the fact that the spatio-temporal link between the two sub-events is loosened. As Goldberg (1995: 169) puts it, “conventionalized scenarios can be cognitively ‘packaged’ in such a way that their internal structure is ignored” (on the possibility of presenting prototypical situations involving indirect causation by means of lexical causatives see also Shibatani 1973).

Evidence in favour of the specific status of animal agency in language derives from the lexico-semantic content of agentive manner of motion verbs used in reference to animal movement. When used to denote ani-
mal movements, verbs like *gallop, trot, jog, canter, jump, amble or prance* can only express purely physical properties of the movement. That is, they lose their capacity to encode the movement as an outward, physically observable manifestation of the mover’s state (as may be the case when these verbs are used in reference to human motion) or to encode information about the overall situation in which the movement is set (as may be the case in human motion, cf. the semantics of *jog*). That is, the verbs lose their potential to convey information about the mental and/or physical self of the executor of the motion and/or about the circumstances of the motion, which, in its effect, enables these verbs to freely enter into SA constructions. SA constructions with animal causees thus freely admit verbs like *gallop, jog, canter, jump, amble or prance*, cf.:

(10.24) Julia wondered if he would gallop her: surely he must for a hunter class. She watched as the mare completed /…/.

(BNC)

(10.25) /…/ I got straight back on and trotted him into the fence again. This time, and thereafter, he behaved perfectly. (BNC)

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40 A motion verb denoting animal movement may be, in certain circumstances, predicted of a human manipulator only, as is the case in *The rider galloped to the stable*. This sentence does not mean that the rider galloped. The activity of galloping is, as Fauconnier and Turner (1996) observe, attributed to the rider by metonymy.