International Journal of Comparative Psychology, Vol. 5, No. 1, 1991

TEACHING AND RESEARCH IN ANIMAL BEHAVIOUR IN SOUTH AFRICAN UNIVERSITIES: A SURVEY

Leickness C. Simbayi
University of Port Elizabeth

ABSTRACT: A qualitative questionaire-based survey of psychology and biology/zoology departments at all 21 universities found in the Republic of South Africa was carried out in 1990 in order to determine how many of them taught and/or conducted research in the subdiscipline of animal behaviour, i.e., either as ethology or comparative psychology or both, and their future plans. Altogether only 10 psychology and 12 biology/zoology departments responded to the questionaire. In addition, a further five psychology departments were contacted via phone or through personal communication. The survey revealed a somewhat disappointing picture with regard to psychology departments—only three of them taught courses in animal behaviour regularly, five taught only small modules on animal behaviour whereas the rest of the departments neither did nor ever planned to do so in the near future. Most psychology departments were of the opinion that the study of animal behaviour was not important at all and consequently only a few of them had conducted or were still conducting some research in the area. In contrast, the picture was a much more exciting one with regard to biology/zoology departments—all of those which had responded, except for one only, had taught courses on animal behaviour in their curricula and had done so for at least a decade. The biology/zoology departments concerned considered animal behaviour to be a relatively important subdiscipline and the majority of them had also conducted or were still conducting some research in the area. Possible explanations for this discrepancy as well as implications thereof for the future of the study of the subdiscipline in South African universities are discussed.

In a survey that I conducted in 1988, which examined the past, present and future status of comparative psychology as a subdiscipline of psychology as taught in psychology departments of universities found throughout English-speaking Black Africa in the following countries: Ghana, Kenya, Liberia, Malawi, Nigeria, Uganda, Zambia and Zimbabwe, I obtained some rather shocking data (Simbayi, 1988). Of about 12 psychology departments that responded to the questionnaire out of the 25 or so different universities in these countries whose participation was solicited, only one had taught comparative psychology on a regular basis

Address correspondence to Leickness C. Simbayi, Department of Psychology, University of Port Elizabeth, P.O. Box 1600, Port Elizabeth 6000, South Africa.

and considered it as important as other areas of specialization in their undergraduate psychology curriculum whereas the majority considered it neither important nor had any plans whatsoever to offer it in the near future. Nonetheless, two of them did indicate the likelihood of their offering courses in this area in the future pending the availability of funds and/or qualified personnel. The major explanation offered for this state of affairs was that courses in their curricula as well as programmes themselves were chosen primarily on the basis of their social relevance. As a result most them had placed a lot of emphasis on courses and/or programmes which highlighted applied aspects of psychology in such sub-areas as clinical, educational and industrial psychology.

One criticism that could be levelled against this previous survey was that by limiting itself to psychology departments it could not possibly have obtained a clear and fair picture at all because comparative psychology is rarely taught as a course on its own but rather included together with ethology in animal behaviour courses in most universities. For example, most courses follow the layout of such standard textbooks as Alcock's (1979) which combines the two approaches. When this fact is taken together with the apparent existence of a clear demarcation between social sciences on the one hand and natural sciences, particularly biological sciences on the other, one would expect animal behaviour courses incorporating comparative psychology to be taught more in biology and/or zoology departments rather than psychology departments.

The present survey was conducted in South Africa. It was undertaken primarily because to date no such survey appears to have been conducted in that country on this subject. Also in view of the foregoing, the present survey examined the teaching and research in animal behaviour not only in psychology departments but also in departments of biology/zoology. The Republic of South Africa, a country that is very unique in that it is a combination of the first world among the privileged white minority segment of the population and third world among the underprivileged black majority, boasts some 21 universities, a number of which have several campuses. Altogether, they constitute almost a quarter of all the universities found in Africa. Thus, such a study is indeed needed to obtain a broader picture about the status of comparative psychology in Africa outside of the area covered by the previous survey.

METHOD

Questionaires with 10 open-ended questions were sent out at the beginning of March 1990 to heads of departments of psychology and biology/zoology departments at all 21 universities. The heads of departments were asked to either pass the questionaires on to relevant lecturers in their respective departments who taught courses on animal behaviour,

ethology and/or comparative psychology or complete the questionaires themselves if there was no other suitable person who could do so. The respondents were also instructed to return the completed questionaires by the end of the month by post.

Altogether a total of 10 completed questionaires were returned by psychology departments while 12 were returned by biology/zoology departments. In order to increase the number of respondents, additional information was obtained from five other universities via telephone discussions or personal communication, thus bringing the total of psychology departments which responded to 15. In the case of universities with more than one campus, most pooled their information together except for one university which sent two separate completed questionaires. However, these too were pooled for the purpose of analysing the results from the present survey.

RESULTS

Psychology Departments

Of the 15 psychology departments that participated in the survey, only three offered animal behaviour as a full undergraduate course lasting a term: one at second-year level, another at third-year level, and the third one at both levels. Furthermore, research at postgraduate level, namely, masters' and doctorate levels was being offered in two of them whilst the third one had done so previously but had stopped since the mid 1980s following the retirement of the main supporter of the programme in animal behaviour in the department. Of the remainder, five indicated that they taught it as a small component of another full course in general psychology at first-year level whereas the rest (n = 7) did not do so at all. In a way, all psychology departments do teach some aspects of animal behaviour in their first-year courses as part of their modules on the biological basis of behaviour. In particular, topics such as learning and motivation, both of which have a strong animal research background, are covered at standard introductory textbook level.

When asked for how long they had been offering courses on animal behaviour, a total of six out of the eight departments which were offering either a full course or a module stated that they had started doing so for almost three decades since the early 1960s whereas the rest (n = 2) had been doing so for the last decade only. As regards how often these courses/modules were offered, only half of them (n = 4) offered them every academic year whereas the other half (n = 4) did not have a definite timetable.

When asked how important animal behaviour was in their curriculum compared to other sub-areas of psychology, the three departments of-

fering full courses in the sub-area on an annual basis indicated that it was of average importance whereas five indicated that it was not very important and four that it was not important at all. The rest of the departments (n = 3) did not give any response to this question.

When asked what was the main emphasis of the departments in choosing courses for their curriculum, five departments indicated that the main emphasis was to give their students the widest encounter with all major sub-areas of psychology whereas seven revealed that social relevance was the important factor. It is also interesting to note that one department did indicate that both the widest encounter with all aspects of psychology and social relevance were important. The rest of the departments (n = 2) did not respond to this question.

When asked if animal behaviour was taken by both natural and social science students at their university, seven departments indicated that it was taken by both. However, six of the departments revealed that it was taken only by natural science students whereas the remainder (n = 2) did not respond to the question.

As regards whether the person or persons who taught the animal behaviour course/module were specialists, indigenous, and what their level of training was, three departments indicated that the personnel involved were specialists who were indigenous and had trained up to doctorate level in comparative psychology (n = 1) and ethology and primatology (n = 2). In one major university, a total of four lecturers, all indigenous, were involved in teaching courses on animal behaviour and had training in physiological psychology up to masters' level only.

With regards to research, only four departments reported that someone in their department had ever carried out some research in animal behaviour in the past or was still doing so. Of these four, three had trained students in research up to postgraduate level in the past, whereas only two of them were still doing so. All four had also managed to have some of their research findings published in local as well as international journals. The fact that quite a lot of the research findings (in particular those by researchers based in biology/zoology departments who did and still do more research on animal behaviour than those in psychology departments) were published in international journals is most interesting in view of the international academic boycott which was meant to ostracise South African academics over the past two decades or so as a protest against the apartheid policies which were being practised until only last year in South Africa.

Finally, concerning their future plans, only three departments of the seven not currently offering courses on animal behaviour indicated their wish to add a course or module on animal behaviour to their curricula in the near future but all declared that this was very unlikely until either financial resources improved or more pressing human problems had been addressed.

Biology/Zoology Departments

Out of the 12 departments which responded to the questionaire three offered full semester courses on animal behaviour, two offered it in courses lasting one term, i.e., quarter, only, six offered it only as a small component of other full courses ranging from first- to third-year level and only one no longer taught it. Furthermore, up to half (n = 3) of them also offered postgraduate programmes in ethology and/or animal behaviour up to doctorate level.

Of the 11 departments that were teaching courses on animal behaviour six of them had commenced doing so over two decades ago (half of them in the 1960s and the other half in the 1970s) whereas the remainder (n = 5) had started doing so only in the 1980s. The one department that was no longer teaching animal behaviour had done so for over two decades between the 1960s and 1980s and had discontinued due to non-availability of staff with enough expertise to enable them to continue doing so.

Only three of the departments which had responded to the questionaire considered animal behaviour to be extremely important compared with the other areas of specialization which are offered for study in their curriculum. The majority of the departments (n = 7) thought the subdiscipline to be of average importance whilst the remainder (n = 2) considered it as not important at all.

All except two of the departments which had responded to the questionaire indicated that their main emphasis when choosing courses for their curricula was to provide their students with the widest encounter with all the major areas of specialization within biology/zoology. Of the remaining two, one added that social relevance was also important in addition to the reason mentioned above whereas the other one indicated that their criterion was solely relevance for available jobs.

Only three departments indicated that at their universities animal behaviour courses were taken by both natural and social science students. The rest (n = 9) indicated that this was not the case at all. The latter group accounted for the state of affairs by stating that either the two faculties, i.e., natural and social sciences, had overlapping lecture time tables thereby making it impossible for students from either faculty to do courses in the other one or due to the fact that a clear distinction between students in the two faculties existed including entrance requirements and fees. These factors also made it impossible for those in the social sciences to study animal behaviour when it was offered by biology/zoology departments, which are usually in the science faculty.

In eight of the departments animal behaviour was taught by specialists in the field who were all trained up to doctorate levels in subdisciplines such as ethology (n = 3), animal behaviour in general (n = 1), bird behaviour (n = 1), psychology and zoology (n = 1), ecology and physiology (n = 1) and behavioural ecology (n = 1). In one department the lecturer

was trained in mammalogy and reproductive behaviour up to masters' level. In the other two departments which taught animal behaviour courses, teaching was done by nonspecialists. For example, in one such department they had two Ph.D.s, one trained in limnology and the other in acarology, teaching the animal behaviour courses whereas in the remaining one department their two lecturers were trained up to M.Sc. level only, one in general zoology and botany and the other in neurophysiology. With the exception of three expatriates, the majority of these lecturers were all South African citizens.

Finally, regarding research in animal behaviour, all but two of the 12 biology/zoology departments which participated in the survey indicated that some research had been carried out both by staff and postgraduate students in their departments and that some of their findings had been published in both national and international journals. In particular, two of the departments were outstanding in their research output and had also excelled in getting a lot of their research findings published both locally within South Africa and, more importantly, internationally (see also p. 39).

DISCUSSION AND CONCLUSIONS

There are several possible explanations for the observed discrepancy between the prevalence and apparent popularity of teaching and research in animal behaviour in zoology/biology and psychology departments in South African universities. First, the rather strict demarcation between natural and social sciences seen in South African universities as is also the case in many African universities implies that biologically-inclined courses such as animal behaviour will be taught in curricula falling under the faculty of natural sciences, and in particular biology/zoology departments, rather than in psychology departments which fall under social sciences. Second, there is a great difference between the relative importance attached to animal behaviour courses in biology/zoology curricula as opposed to psychology curricula. In particular, biology/zoology departments appeared to place more emphasis on the widest encounter of all major areas of specialization, i.e., sub-fields within their field, unlike most psychology departments which emphasized applied sub-areas of their discipline not only in teaching but also in research. Clearly, the issue of social relevance to the unique South African social context is emphasized in most psychology departments. This state of affairs is further compounded by the relatively strong phenomenological bias which is evident throughout South African psychology in general and in particular its rather rigid subscription to the humanistic approach which advocates that psychological research should be based on humans rather than animals.

On the whole the results obtained from South African psychology departments were more encouraging when compared to those obtained in the previous survey of psychology departments in universities in English-speaking Black Africa (Simbayi, 1988). In particular, relatively more South African universities were offering courses in animal behaviour than was the case in universities in English-speaking Black Africa. Even more encouraging was the fact that training up to postgraduate level was still taking place in at least two of the departments. However, with regard to future plans, most of the South African psychology departments currently not offering animal behaviour courses did not foresee any major changes in their curricula unlike psychology departments in universities in English-speaking Black Africa that indicated that with staffing and/or financial resources permitting they would actually consider offering courses on animal behaviour in their curricula.

On the basis of the foregoing, it may be concluded that the future of animal behaviour in biology/zoology departments is almost certainly guaranteed for the foreseeable future, whereas it is rather bleak in psychology departments. The latter will undoubtedly remain the case until there is a shift from emphasis on courses that are or research that is, either applied or more socially relevant to courses and/or research that allow the widest encounter of all areas of specialization in psychology. This shift also depends on the striking of a fair balance between applied and basic research in psychology departments as is the case with the current practices amongst biology/zoology departments.

REFERENCES

Alcock, J. (1979). *Animal behaviour: An evolutionary approach.* Sunderland, MA: Sinauer Associates, Inc. Publishers.

Simbayi, L. C. (1988). The future of comparative psychology in Africa: The case of English-speaking Africa. Paper presented to the Symposium on Comparative Psychology: Towards the Year 2000, jointly organized by the XXIV International Congress of Psychology and the International Society for Comparative Psychology held in Sydney, Australia, 28th August–3rd September, 1988.