

ASPECTS OF RESEARCH STRATEGY IN STUDYING FOREST OWNERS' BEHAVIOUR

VELI-PEKKA JÄRVELÄINEN

University of Helsinki, Finland

1. INTRODUCTION

Research concerning forest owners' behaviour plays an important role in the evaluation of the effectiveness of forest policy on small woodlands. This is because the effects of forest policy measures on forestry are, in this case, indirect and channelled through the behaviour of forest owner. In fact, information is required on the factors affecting forest owners' behaviour, and especially on the effects of various means available to forest policy to affect this behaviour. Such information would give the possibility to evaluate or predict the success of applied or planned forest policy on small woodlands. It should also be emphasized that this kind of information is necessary regardless of whether the goal defined for forest policy is to increase timber production, or to achieve some other state in the

treatment and use of forests considered to be socially important.

In this paper some basic concepts and methodological problems of the forest owner studies will be discussed. *First*, the concepts 'forest owner' and 'forestry behaviour' will be defined. In this connection the general sociological term, social role, is used as a starting point of the discussion. *Secondly*, the problem of explaining human behaviour will be examined. This is the problem which has again been the object of a lively scientific discussion in recent years. Reference will be made only to these points of the discussion which seem to be relevant from the point of view of forest owner studies and the evaluation of the effectiveness of forest policy on small woodlands.

2. FOREST OWNER'S BEHAVIOUR

2.1. Forest owner's role

By *forest owner* we mean an individual person who owns forest either alone or jointly with his family. The ownership can also be in the form of heirs or a personal combine. The state, the local authorities, and other official communities are also important forest owners in many countries. However, these institutional forest owners will not be discussed here

as they are very different as forest owners than individual persons. Studies concerning institutions as forest owners and as object of forest policy is a separate task which requires special theoretical starting points and methodological solutions.

What then do we mean by the term 'behaviour' when used with respect to the individual forest owner? The concept 'behaviour' has a very wide content and it may

include many kinds of activities and values. For this reason the content of this general term has to be specified here.

One may refer to the fact that people usually function in several different tasks and positions, and that they will be expected to behave differently, depending on what tasks or positions they hold. Social scientists speak about social roles and associated role behaviour, respectively. Now it is important to note that persons who own forest also function in several different tasks and positions and that they, too, can be considered as holders of different social roles. The terms *forest owner's role* and *associated role behaviour* are used when interest is focused on the behaviour of an individual person when he/she is acting as a forest owner. In other words, the forest owner has to fulfill expectations made on him/her just because he or she owns forests.

The forest owner's role and associated behaviour can further be considered from several different points of view. The forest owner can be judged, for example, as a nature conservationist, as a supplier or consumer of recreational services obtainable from the forest or as a practiser of forestry. It seems, in fact, that a whole 'role-set' (see JOHNSON 1966, pp. 34–39) is associated with the forest owner's position, the situation which may lead to severe role conflicts in some cases.

22. Forest owner's forestry behaviour

In this paper, interest is focused on the forest owner's behaviour as a practiser of forestry, or his or her *forestry behaviour*. This behaviour also includes several different aspects which can be grouped in many different ways. The following is one alternative (cf. JÄRVELÄINEN 1971, p. 11).

By forestry behaviour is meant the behaviour of a forest owning person

- as a *tree grower*. This aspect of forestry behaviour includes the activities and attitudes that are associated with silviculture. For example, the forest owner's attitudes towards and adoption of different silvicultural methods are a part of this aspect of forestry behaviour.
- as a *timber harvester*. This aspect of forestry behaviour has special importance when,

for example, the employment problem or the problem of the mechanization of logging in private forestry are considered.

– as a *timber seller*. This aspect of forestry behaviour includes the forest owner's activities and attitudes associated with timber selling. For example, the intensity and the regularity of the timber sales made by forest owners are included in their behaviour as a timber seller. It is worth noticing that this aspect of forestry behaviour has recently become an important study object and also an object of forest policy concern in certain countries, e.g. in the Nordic countries where developments have led to a continuous under use of the cutting possibilities of the small woodlands owned privately.

– as a *tree user*. This aspect of forestry behaviour includes the activities and attitudes that are associated with the forest owner's own use of wood for heating and building or for other purposes.

The above grouping of aspects of forestry behaviour is only one possible alternative. In effect, the relevant grouping depends on the objectives and tasks of each study. For example, if the cutting behaviour of the forest owner is the object of a study, it is pertinent to analyse both the cuts for timber sales and for the owner's own purposes (cf. SEPPÄLÄ 1974).

Further, it is necessary to point out that forestry has close connections with the activities which aim to promote forestry or to realize the formulated forest policy programs. In many countries there are special organizations and forestry experts for these purposes. With the aid of these organizations and experts the individual forest owners can obtain help in the management of their forests and also obtain economic support for various forestry measures provided by forest policy. So the forest owner's *attitudes towards forestry promotion and forest policy* as well as his or her *activity in the use of different services and economic incentives* are closely associated with his or her forestry behaviour. These aspects of forest owner's behaviour are of great importance when studies concerning the effectiveness of forest policies in small woodlands are carried out.

3. EXPLANATION OF FOREST OWNER'S BEHAVIOUR

31. Two traditions in the philosophy of science

In the philosophy of the science of man there is a continuous controversy between two traditions or schools, in which one seeks its ideals from the methodology of the natural sciences and the other from the methods of history or other humanistic sciences. In the tradition associated with the ideals of natural science, the empirical character and methodological unity of science have been emphasized. Also a certain scepticism towards holistic theoretical constructs is a characteristic of this approach, the typical advocate of which is the science philosophy called positivism. On the other hand in the hermeneutic tradition of science philosophy, the peculiarity of humanistic sciences has been emphasized. In this tradition it has been stressed that specific methods and analytical tools are needed in order to adequately handle the problems connected with human behaviour.

The different models constructed for explaining human behaviour also reflect the controversy between these science philosophy traditions (see MANNINEN and TUOMELÄ 1976). It is characteristic of the positivistic approach to operate with the causal terms and to aim at finding the causal determinants of human behaviour. Whereas the use of the teleological explanations and efforts to understand human behaviour are typical of the hermeneutic approach.

Questions concerning *causal explanations* are already very complex because there are many different conceptions concerning the concept of causality itself. Causal relations can be conceived in a deterministic manner as universal laws or invariances or on the other hand as probabilistic regularities, in which case it is assumed that effects follow causes only with a certain probability (see e.g. NURMI 1974, pp. 16–39). However, the crucial assumption in causal explanation is the idea that there exist factors which cause or produce changes in the phenomenon to be explained. The task of causal analysis is then to seek and uncover these change producing factors. Causal relations are also always conceived as empirical relations. In other

words, there is no logical necessity in causal connections but the causes and effects have to be described and verified independently of each other.

On the other hand, the idea of *teleological explanation* is to indicate the goal of the behaviour to be explained in which case the relationship between explanatory factor and the behaviour to be explained is not empirical but conceptual or logical. Thus the goal-oriented or purposive nature of human behaviour is emphasized, and the best way to explain or understand human behaviour is to interpret its meaning by referring to the goals and intentions of actor (see TAYLOR 1964, pp. 5–6). For this reason the overt perception of human behaviour is not sufficient, and information about the goals and intentions of the actors are needed. Characteristic of this method of 'understanding' (Verstehen) is to consider individual events and aspects of human behaviour as a part of some comprehensive entirety rather than to explain them separately.

The contradiction between the two models of explanation is not, however, absolute, at least not in behavioural and social sciences. Contrary to what may sometimes be assumed behavioural studies that are based on overt observations and causal explanation require an understanding of the phenomenon to be explained in its social and cultural context. In fact such an understanding is a necessary prerequisite of a study (see APEL 1972, pp. 21–26).

However, it can be claimed that different phenomena presuppose different kinds of explanation in the social sciences (structural, institutional and cultural explanations, see ALLARDT 1972, pp. 58–64). Further, it can be claimed that the objective of a study or the relevant search for knowledge (see HABERMAS 1972) have a decisive effect on the selection of the explanatory model in behavioural studies. When the objective of a study is to *understand human behaviour*, it is necessary to try to interpret the meaning of the behaviour by analyzing the way of thinking and the social situation of the actors. So the teleological model of explanation has to be used. Conversely, when the central task of a study is to develop *social planning and its*

instrumentation ('social engineering') the question is about the so-called technical search for knowledge. Analyses seeking and uncovering causal determinants of human behaviour are then both suitable and useful.

32. Selection of explanatory models in forest owner studies

The usefulness of different explanatory models and research strategies in forest owner studies have also been evaluated. This question is discussed by HAHTOLA (1973a) who emphasizes the importance of mental factors and understanding along with causal explanations. In a study concerning the rationale of forest owner's decision-making HAHTOLA pays special attention to the holistic nature of the research approach when the question of the proper model of explanation seems to diminish to a detail or aspect of the whole explanatory schema (HAHTOLA 1973b, p. 16).

Unlike the above view, the present paper stresses the *heuristic nature* of the selection of

an explanatory model. It is necessary to point out that the proper explanatory model in forest owner studies decisively depends on the objectives of the study or on the kind of information that will be obtained from the study. Where interest focuses, for example, on the different goals of forest owners, as it is the case of studies associated with the planning of promotion of private forestry, the teleological model of explanation is of primary value (cf. TIKKANEN 1977, pp. 54–55 and 65). On the other hand, where the forest owners are considered as an object of some effective activity, as it is the case of studies which intend to serve the planning and implementation of forest policy, it is necessary to analyze the general determinants and manipulable factors of forest owner's behaviour. In effect, the causal explanations of forest owners' behaviour can be seen as one important prerequisite for a rational forest policy because such scientific information forms a proper basis for evaluating and predicting the effects of different forest policy measures in private forestry.

4. SUMMARY: Aspects of research strategy in studying forest owner's behaviour

Research concerning the forest owners' behaviour plays an important role in the evaluation of the effectiveness of forest policy on small woodlands. This is because the effects of forest policy measures on forestry are indirect and channelled through the behaviour of forest owner.

In this paper some basic concepts and methodological problems of forest owner studies are discussed. *First*, the concepts 'forest owner' and 'forestry behaviour' are defined on the basis of the general sociological term, social role. *Secondly*, the problem of explanation and the selection of the

explanatory model in forest owner studies is discussed. In this connection the heuristic nature of the selection of the explanatory model is underlined. It is pointed out that the proper explanatory model in forest owner studies is decisively dependent on the objectives of the study or on the kind of information that will be obtained by the study. In such studies that intend to serve the planning and implementation of forest policy, it seems necessary to aim at causal explanations, and to analyze the general determinants and manipulable factors of forest owners' behaviour.

LITERATURE

- ALLARDT, E. 1972. Structural, Institutional and Cultural Explanations. Acta Sociologica, Vol. 15 (1): 54–68. Stockholm.
- APEL, K.-O. 1972. Communication and the Foundations of the Humanities. Acta Sociologica, Vol. 15 (1): 7–26. Stockholm.
- HABERMAS, J. 1972. Knowledge and Human Interest. Heineman. London.
- HAHTOLA, K. 1973a. Metsänomistajien käyttäytymistutkimuksissa sovelletut tutkimusotteet. Summary: Research approaches in the Finnish studies of forest owners' behaviour. Silva Fennica, Vol. 7 (3): 236–254. Helsinki.
- HAHTOLA, K. 1973b. The rationale of decision-making by forest owners. Seloste: Metsänomistajien päätöksenteon perusteet. Acta Forestalia Fennica, Vol. 130. Helsinki.
- JOHNSON, H. M. Sociology: A systematic introduction. Routledge & Kegan Paul Ltd. London.
- JÄRVELÄINEN, V.-P. 1971. Factors influencing silvicultural activity. Communicationes Instituti Forestalis Fennicae. 73.2. Helsinki.
- MANNINEN, and TUOMELA (eds.). 1976. Essays on Explanation and Understanding. Studies in the Foundations of Humanities and Social Sciences. D. Reidel Publishing Company, Dordrecht – Holland.
- NURMI, H. 1974. Causality and Complexity. Some problems of causal analysis in the social sciences. Turun yliopiston julkaisuja. Sarja B. Osa 131. Turku.
- SEPPÄLÄ, R. 1974. Yksityismetsänomistajien hakkuukäyttäytyminen Suomen itäosissa. Summary: Cutting behaviour of private forest owners in eastern Finland. Folia Forestalia 189. Helsinki.
- TAYLOR, C. 1964. The explanation of Behaviour. Routledge & Kegan Paul. London.
- TIKKANEN, I. 1977. Metsäpoliittisten toimenpiteiden vaikuttavuus. (Effectiveness of forest policy measures.) Helsingin yliopiston kansantaloudellisen metsäekonomian laitos. Moniste 122 s. Helsinki