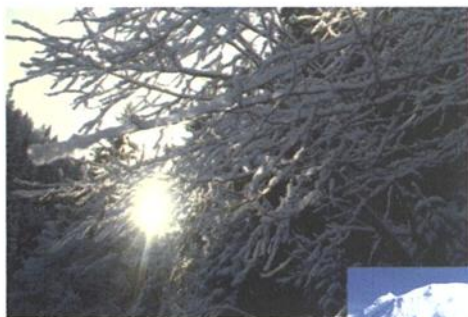


# Public perception and attitudes of forest owners towards forest in Europe

Perception publique et attitudes des propriétaires  
envers la forêt en Europe

Edited by : Daniel Terrasson

*Commentaires et synthèses  
du groupe de travail  
COST E3 - WG1  
1994-1998*



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# Introduction

This book gathers the comments and syntheses presented by the « Public perception and attitudes of farmers and forest owners » working group. This working group was operational from 1994 to 1998 in the framework of the European cooperation program in the area of scientific and technical research (COST E3) on « forest in the rural development context », thanks to some European Community funding. The quality of the work produced is largely due to the dynamism of Niels Elers KOCH, who chaired this working group during its first two years of operation, while also being in charge of COST E3 general coordination.

The goal of this group was to review the research projects undertaken on this topic in Europe, and then to encourage their development through a network of laboratories. The projects took place in three steps.

First, the goal was to list recent or ongoing research projects in the various countries of the Community. This project as a whole is not described here, but a few essential elements of C.H.JAKOBSEN and N.E.KOCH's global analysis are mentioned in the final synthesis article. A more detailed report, which includes a synthetic description of the identified projects and a few questionnaire examples, was distributed to the working group members. Their names are listed in the appendix.

Then, the working group tried to understand the commonalities and differences between the concepts and methodologies used. The goal was, on the one hand, to check whether the results were comparable from one country to another and, on the other hand, to think of a way to develop common methodologies.

This book gathers the research projects that have been selected in this framework. In all articles, the methodologies used have been particularly stressed. The results given are above all used as illustrations, and the goal of this book is not to synthesize them. On the other hand, we have gathered complementary approaches which belong to different fields (sociology, human geography, Environmental Economics,...), on different scales (from local to national), and which concern various questions, from the identification of preferences to economic assessment of non commercial goods. Given the breadth of the covered area, these presentations do not exhaust the diversity of all methodologies used, but the reader will find examples of scientific approaches which are useful to answer a number of questions about the public perception and the owners' attitude towards the forest.

In addition, it appeared during the discussions that a number of research projects harboured a confusion between the notions of perception and attitude.

It seemed therefore useful to add, at the beginning of the book, an article by H.BOERWINKEL who tries to clarify these concepts by using an example that does not belong to the forest context : conflicts between fishermen and surfers on the littoral.

The first part of this book deals first and foremost with the public perception of the forest, while the second part gathers texts on the attitudes of forest owners. Such a split is somewhat arbitrary, as some of the approaches deal with these two topics.

The working group then tried to identify the gaps of the European research system in this field, and to propose a number of priority research axes. This is the object of the third part, which is made of two articles. The first one was written by Thomas O'LEARY and offers a few leads in the area of public perception. The second one tries to synthesize the discussions of the working group.

**Daniel TERRASSON**  
**President of the working group**

## *Part I*

# **Public perception towards forest and forestry**



# Perceptions and attitudes in environmental transactions considered as appropriation components

*Perceptions et attitudes considérées comme des éléments d'appropriation dans les transactions environnementales*

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**Abstract:** *The concepts of perception and attitude are interpreted as referring to the same relationship between a person and an environment which is conceived as appropriation, with different accentuations of the sensory and the behavioral side of this relationship, and an accordingly different particular connection with the perspective of actor groups in the field of forestry. Perception focuses on the cognitive, emotional and motivational processing of environmental images, as important determinants of the relationship between forests and their recreational visitors. Attitudes focus on the cognitive, emotional and motivational processing of aims, which are especially relevant for forest owners and managers. Examples of studies with a scale for the assessment of appropriation demonstrate the presence of perceptual and attitudinal components of appropriation in one and the same person-environment relationship.*

**Résumé :** Dans une relation entre une personne et son environnement, conçue comme une appropriation, les concepts de perception et d'attitude se réfèrent à une accentuation différente des aspects sensoriels et comportementaux de cette relation, et en conséquence à des liens spécifiques différents avec les perspectives de groupes d'acteurs. La perception est centrée sur les aspects cognitifs, émotionnels et motivationnels de la construction des images environnementales qui sont des déterminants importants de la relation entre la forêt et ses visiteurs. Les attitudes sont centrées sur les aspects cognitifs, émotionnels et motivationnels dans la construction des objectifs, qui sont particulièrement pertinents pour les propriétaires et les gestionnaires. Des exemples d'études avec une échelle d'évaluation du degré d'appropriation montrent la présence des composants dans une seule et même relation personne-environnement.

## Introduction

The increasing concern for the environment and for the preservation of natural and landscape values has created a particular interest of policy makers in perceptions and attitudes of the public in general and of those who have a share in the direct control of those values, such as land owners and managers. The development of insights in these perceptions and attitudes may, therefore, profit from the analysis of the way perceptions of, and attitudes towards, the environment are anchored in the psycho-social dynamic people in general and the special control groups are involved in.

The concept 'perception' is defined in the 'Dictionary of the social sciences' (Gould and Kolb 1964, citing Hartley and Hartley 1952), as 'the process by which we register what is in the field of view in a way that is meaningful'.

In the same dictionary the concept 'attitude' is defined, citing Krech and Crutchfield (1948), as 'an enduring organisation of motivational, emotional, perceptual, and cognitive processes with respect to some aspect of the individual's world'. More recent definitions of these concepts do not depart fundamentally from the older ones.

In this attitude definition perception is included, indicating a certain intrinsic role of perception in relation with attitudes. On the other hand, the definition of perception as perceiving 'in a way that is meaningful' also suggests the importance of motivational, and therefore attitudinal aspects for perception. Experiments and real life experiences demonstrate that we often perceive 'selectively' what we want, because of a conditioned relationship with a person or an object (Gleitman 1981, or any other introductory handbook on psychology). We also build our attitudes, and change them, on the basis of what we perceive. Keeping this relationship between the two concepts in mind there is yet reason to differentiate the two concepts, for both practical and theoretical reasons.

A practical example is the following. Both recreationists and non-recreationists, as much as land owners/managers, have landscape perceptions and landscape attitudes. In recreation, however, the experiential transaction is more important than the aim one has with a landscape. It is, therefore, obvious, to put more stress on perception when recreation is at stake. The reverse is true in the case of landscape attitudes. In that case the aim character for the landscape owner/manager is more important and should be stressed.

For non recreationists accentuation of both landscape perception and landscape attitude may be required. Next to the possibility of experiencing the landscape the possibility, and even requirement, of acting responsibly with the landscape as a common good (resource for timber, natural values, environmental values) may be focused upon.

It is, therefore, the social context of the research approach that indicates the specific scope on either perception, or attitude, or both.

Landscape perception may then be defined as the cognitive, emotional and motivational processing of sensory registrations of a landscape in the context in which it is located socially, and spatially. Landscape perception puts the landscape in a primary experiential transaction context.

Landscape attitude is the organisation of cognitive, emotional, and motivational aspects of behaviour towards the landscape, on the basis of certain personal, or shared aims. Landscape attitude puts the landscape in a primary behavioural transaction context.

These definitions and mutual relationships are schematised in figure 1.

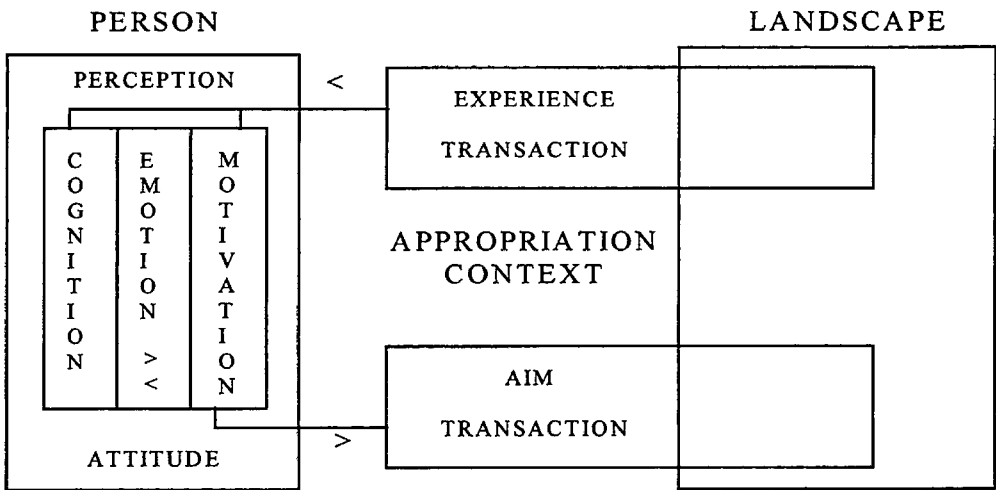


Figure 1: The conceptual relationship between landscape perception and landscape attitude in the context of experience transactions and aim transactions

## 1. Perception and attitude as two sides of appropriation

From a general psychological point of view perceptions and attitudes can be considered as two sides of appropriation transactions. Appropriation can, according to Chombart de Lauwe (1976) be differentiated into four basic categories, namely <sup>(1)</sup> the ability to 'modify' and 'use', <sup>(2)</sup> the ability to 'act more or less freely' and exert 'dominance' in cases of 'conflict', <sup>(3)</sup> 'aesthetics', and <sup>(4)</sup> the ability to experience the environment as 'symbol-bearer, according to a hierarchy of values'. In each of

these categories a perceptual side (input) can now be differentiated from an attitudinal side (output). This may be demonstrated with the following example of forest owners and recreational visitors of a forest.

One forester may perceive a forest stand as being in a good condition to be harvested, and accordingly have a supportive attitude towards governmental subsidising measures. A recreational visitor may equally support subsidising, because otherwise the forest may disappear altogether because of more profitable exploitation of land, such as for housing and industry.

Another forester may perceive the forest as the heritage of the family at large for centuries and feel that subsidising, because of certain required conditions by the authorities, is restricting his freedom of action and decisional dominance too much. A recreational visitor may feel that subsidising is rather conducive for his free action, as it keeps the owner at a distance from considerations of profit, so that recreational values may be observed more easily.

The concern for the attitudes of forest owners and the public towards forests is for a large, maybe even the largest part, connected with changes in basic value systems. While the public in western countries has developed a certain anxiety about rapidly disappearing forests, and/or the ecological values contained in it, the forest owner appears to be still captivated to a considerable extent in a more rationalised view of balancing different functions of which profit, or economic sustainability, is a dominant one.

This attitude prevails especially amongst the owners and managers of large forest estates. But for small forest owners an attitude of utility maximisation, rather than profit maximisation, prevails (Van der Ploeg and Wiersum 1996). In terms of Ellul (1979) one could say that the owner is as much immersed in 'la technique' as the public is already trying to escape from it, and is trying to find a -concrete or symbolic- refuge in the forest, and in nature in general. Of course, forest owners and the general public are to a large extent part of one and the same cultural change dynamic. As Boerwinkel et al. (1996) have demonstrated, the course of changes in basic cultural attitudes among (Dutch) designers of outdoor recreation areas is a -measurable- derivative of the general course of cultural change in society at large. The basic dimension of this long-term cultural change for our present cultural situation, as several authors (e.g. Habermas 1976, Lemaire 1976, Van Peursen 1985) have argued, is connected with the change from a predominant rationalisation to an ethical and fundamentally critical reflection on that. Boerwinkel (1986a) foresaw in this context, against a predominant 'techocentrism', the development of a 'biocentrism' that puts 'life in oneself, in other people, and in nature' at the centre of judgement criteria for what are viable solutions of major social problems.

To turn again to forestry, this very change of basic cultural attitude should be expected also among forest owners, as it has already happened to the public at large, and to specific expert groups.



An assessment of changing attitudes in forest owners, comparable with those of the changing attitudes of designers of outdoor recreation projects, and of philosophers on educational aspects of children's' playgrounds, such as performed by Boerwinkel et al. (1996) ought to result in a similar pattern of changing basic cultural attitudes.

## **2. The anchoring of forest attitudes in justice judgments**

As to the attitudes of forest owners towards changing forest management objectives an important criterion that derives directly from the basic cultural attitude dynamic is the judgement of the justice of outcomes 'for the self, for other interest groups, and for nature'. In the technocentric context of rational forest management for forest owners who depend economically on their property, the predominant self-centred notion is that a forest should yield as much profit as possible. Efficient management is aimed at achieving that. If the question of justice of a fair share of all interests does come up at all, the 'interest' of nature is most probably reduced to a preservation of vitality of forest elements that have a central role in performing the timber and other harvesting functions. Other, more human, interests, such as recreation, or the interest of the public in general, will be put in a just treatment model in so far as a profitable economic function of the forest is considered to be good for everybody's subsistence, for the gross national product. In this technocentric context the recreation function can only be justified by a rational balancing of benefits and costs, strongly connected with the notion of retribution.

In a biocentric context, the notion of justice will be operative in quite a different way. Even if the economic appropriation value (i.e. Chombart de Lauwe's 'modification and use'), is for the forest owner still a viable one, other values (such as are implied in the other three appropriation categories: 'free action and dominance', 'aesthetics', and 'symbolism') may have an equal, or at least a genuinely greater influence on management decisions of the forest owner (cf. the examples given above). Also, the recognition of these four categories as legitimate appropriation properties of the forest for other interest groups, such as recreationists and other parts of the general public, will, in a biocentric context, be much more pronounced. Finally, nature, or certain species of it, will be truly recognised as having their own legitimate pattern of 'appropriation' requirements regard the forest.

In the context of justice judgements important 'actors' who have, further, to be differentiated from 'other interest groups' in general are the government and other administrative groups that exert power in the allocation of cost-benefit balances in which forests as resources are involved. A thorough analysis of attitudinal options for forest owners and public groups which is in itself not possible in the context of this text, will need a special focus on policy groups, their views on basic cultural attitudes, and the instruments they use to influence the physical, social, and cultural management of the forest.

### **3. Some data on justice and appropriation of the other interest group**

According to Staub (1978), an important psycho-dynamic concept in the justice assessment by human subjects is the concept of 'reciprocity' in the context of establishing 'equity' in a 'just world'. Reciprocity means keeping your own contribution to the cost-benefit balance of another person in balance with his/her contribution to your own cost-benefit balance. Costs and benefits are here meant in a psychological sense. This may, and will of course in the case of a forest owner, include economic benefits. According to Staub several types of assessment may influence the balance outcome. One assessment may be whether one is personally in some sort of debt towards the other person. If a recreationist in one's forest happens to be a neighbour who at times affords neighbourly services when needed, a forest owner will be more prepared to allow more recreational access for that visitor than for other more distant ones. Staub stresses as a special type of equity mechanism what he calls the 'hedonic balance hypothesis'. People evaluate the extent to which they are personally in a better or worse state of mood than another person who is applying for help. When the outcome of this assessment is a personally worse state the motivation to help will be lower than in the reverse case. If, for example, one meets as a forest owner a recreationist who is apparently in a good mood, and only focused on preserving his personal well-being and perhaps nature also, and does not show any sympathetic understanding for the survival hazards of the 'species' forest owner, which give them a bad mood, this will likely be met by less co-operation for giving access to the forest owner's.

In the reciprocity definition above, the importance of actions of one actor towards the other appear to be essential criteria for the management of reciprocity. In the following example of a study on conflicts between anglers and surfers (De Milliano and Van Sambeek 1986; Boerwinkel 1996) the fine attuning of reciprocity to perceived actions is rather well demonstrated. In this study the appropriation of other user groups and some of their specific actions was assessed with a special scale, the Subjective Motor Appropriation Scale (SUMAS). Elsewhere (Boerwinkel 1996) data are given on theoretical background, validity, and fields in which this scale has been applied. As this scale measures the (emotional) appropriation (acceptance and rejection) of persons and their actions, environments, objects, ideas, etceteras, in general, it can, in agreement with the above stated relationship between appropriation, perception and attitude, as much be considered as a combined perception and attitude assessment in the context of an appropriation assessment.

As is apparent in figures 2 and 3 both groups, anglers and surfers, appropriated the other group rather in the misappropriation or rejection zone. The difference between the average score for anglers towards surfers in figure 2 and the reverse in figure 3 is only significant if it is controlled for age (Boerwinkel 1986b). Apparently the higher average age of the anglers moderated their reactance (emotional distancing; Brehm 1972) towards surfers. When specific actions of the other group

are evaluated, however, the appropriation pattern within each singular group turns out to be rather differentiated. The psychological basis of this differentiation is particularly highlighted when the whole set of SUMAS appropriations is analysed with principal component analysis. The best appropriated actions of surfers by anglers (figure 2, component 1), appear to be actions that are either not annoying at all, or unintendedly so, while caused by inexperience of the other party. The worst appropriated actions (figure 2, component 5) are the intendedly offensive ones, or demonstrations of unconcern for another person's need for recreational space. Surfers on their side appear to react in a similar way, (figure 3, component 1 and 3 respectively; the lower number of components this group showed regarding other user groups and actions of them are due to a smaller number of items that were put into the questionnaire by the researcher).

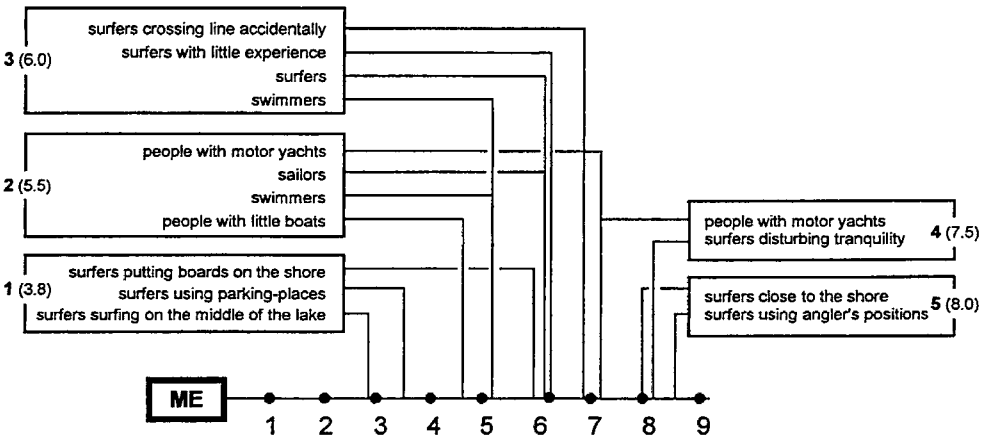


Figure 2: Appropriation patterns in SUMAS mean scores for surfers, their actions, and other elements of the recreational experience, as judged by anglers. Enclosures mark principal components, numbered in order of average SUMAS score (1 = strongest/positive appr.; 9 = weakest/negative appr.) for the dimension (between parenthesis). Adapted from De Milliano and Van Sambeek (1986).

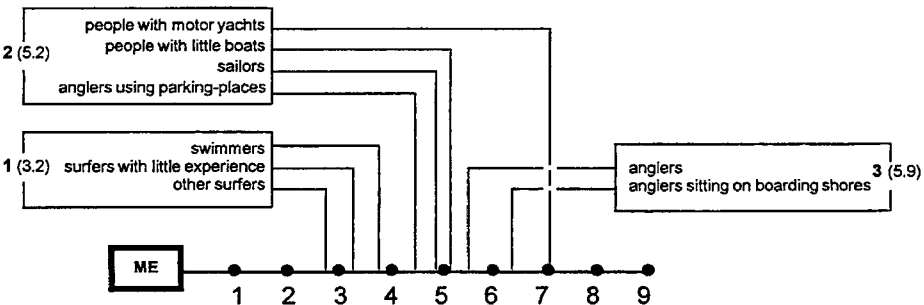


Figure 3: Appropriation patterns in SUMAS mean scores for anglers, their actions, and other elements of the recreational experience, as judged by surfers. Enclosures mark principal components, numbered in order of average SUMAS score (1 = strongest/positive appr.; 9 = weakest/negative appr.) for the dimension (between parenthesis). Adapted from De Milliano and Van Sambeek (1986).

On the basis of undifferentiated reciprocity mechanism one would expect the anglers, who felt more hindered by surfers (71%) than the other way round (39%), to be rather willing to put surfers on their place when management measures are considered. In a small sample of only anglers, who were not established to be representative of the larger sample of figure 2, this unqualified retaliative form of reciprocity did not turn out to be the dominant reaction pattern. When potential measures for relieving the pressure of other user groups of recreation waters on anglers were presented to the anglers, the harsh measures, such as using wire, were on the average rejected while inconspicuous measures, such as creating a secluded inlet, were well accepted (Table 1).

Management solutions on sketch	No. in question	SUMAS mean <sup>1</sup>	Dim. I excl.	Dim. II priv.	Dim. III aggress.
inlet	5	2.2	-.64	.43	
barren platform	2	7.1	.49		
trees	8	3.0	.45	.44	.49
bushes	10	2.6	.67		.49
floating line	6	3.9	.71		
bench	9	5.5	.78		
platform and reed	1	4.9		.90	
reed hedge	7	4.6		.88	
platform and sign	4	4.3			-.70
platform and wire	3	5.2			.74

1. (1 = strongest/positive appropriation; 9 = weakest/negative appropriation)

*Table 1: SUMAS mean scores and principal component loading on three dimensions in the same SUMAS scores regarding 10 sketched solutions, in black-and-white line drawings, for annoyance created by surfers and other user groups on behalf of 25 anglers. Secondary analysis by the present author of data from De Milliano and Van Sambeek (1986).*

Again, by using principal component analysis, the underlying psychological dimensions revealed this notion of harshness versus leniency of actions against the other party. These three principal components can thus be considered as 'equity' mirrors of the components of perceived actions of the other group towards oneself as angler (figure 2).

Turning again to the situation of forest owners and other interest groups, such as recreationists and the general public at large, a similar appropriation of, or attitude toward, the other group can be assessed likewise by focusing on actions. Further, a similar outcome may be expected as to the positive appropriation by forest owners of unintendedly annoying actions by other parties, such as recreationists, and more negative appropriations of intendedly annoying actions by those other parties.

As far as the relationship between perception and attitude is concerned it is clear that in the SUMAS appropriation assessment the perception of the actions of the other group, the attitude towards it, and the appropriation of measures against the other group, are as a whole very much intertwined. The focus on differentiated