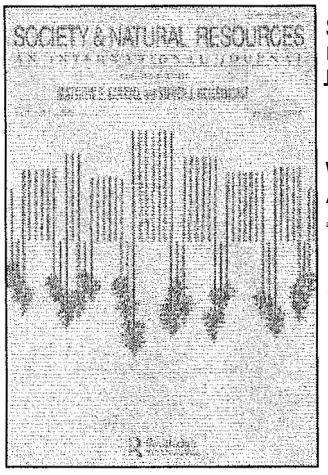

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Framing Conservation on Private Lands: Conserving Oak in Oregon's Willamette Valley

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Framing Conservation on Private Lands: Conserving Oak in Oregon's Willamette Valley

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Conserving threatened habitats on private lands requires policies that advance the interests of landowners and natural resource professionals alike. Through qualitative analysis of individual and focus-group interviews, we compared how family forest owners and natural resource professionals frame conservation of threatened habitat: the oak woodlands and savanna in Oregon. Applying constructionism to the analysis and design of specific policies, we explored policy options to facilitate cooperation and avert conflict between these stakeholders. Informants displayed three primary frames in discussions of oak conservation: the human-nature relationship, the rights and obligations of property ownership, and the role of policy in social change. Theil' motivations to conserve oak and preferences for conservation policy stemmed from their differing uses of these frames. Conservation easements, habitat mitigation banking, and voluntary grass-roots initiatives were three types of policy that seemed to accommodate the frames of both owners and natural resource professionals.

Keywords conservation policy, family forests, oak, private land, threatened habitat

In the conservation of threatened habitats on private lands, more scientific information and expert advice alone do not resolve complex problems. Such efforts become embroiled in moral debates about the compatibility of humans with nature, rights and obligations of property ownership, and limits of policy. Moreover, because ecosystems defy property boundari.es, planning cannot take place on a parcel-by-parcel basis (Landres et al. 1998). This is especially true in family forestry, where owners have diverse objectives and emotional ties to their lands, many of which are scattered among industrial parcels along the edges of state and federal forests. In such complex

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social and ecological contexts communication, mutual understanding and trust between stakeholders may be the key to conservation (Fischer 2000; Wondolleck and Yaffee 2000). To foster a more cooperative approach, policymakers must go beyond the technocratic model of decision making (Holling 1995; Fischer 2000) and engage experts and laypeople and technical and everyday knowledge equally in social dialog (Habermas 1984).

Conservation of oak woodlands and savannas-hallmark habitats in Oregon's Willamette Valley-provide an interesting case for exploring approaches to private lands conservation policy because they are located almost exclusively on private land. The habitats, which we refer to collectively as "oak," are dominated by Oregon white oak *(Quercus garryana)* and assume a range of forms from dense woodlands along the foothills at the valley fringe to open savanna on the valley bottom. Over 200 plant and animal species are associated with Oregon white oak-45 of which are at risk-making oak woodlands and savannas some of the most biologically diverse habitat types in the state (Hagar and Stem 2001; Thysell and Carey 2001; Standiford 2002). Due to its location in prime areas for expansion of urban development, vineyards, and tree plantations, and because of the elimination of the periodic fires to which it is adapted, the quantity and quality of oak are in decline. Current estimates of oak range from 24,921 to 69,684 hectares, which is thought to represent perhaps 10% of what was once present (Atterbury Consultants 1992; Klock et al. 1998; Oregon Department of Fish and Wildlife 2006). Much of the remaining oak is on family forest lands (Atterbury Consultants 1992). Family forest owners typically are knowledgeable about ecological systems and hold ecological objectives among their multiple management goals (Jones et al. 1995; Brunson et al. 1996; Johnson et al. 1999). Many are also skilled in active management practices necessary for conserving dynamic ecosystems such as oak. For these reasons, family forest owners are important in any oak conservation strategy in the region.

In our case study of oak conservation in the Willamette Valley, Oregon, we explored policy options that would advance the goals of family forest owners and natural resource professionals alike and foster a cooperative model of policymaking. Through qualitative analysis of individual and focus group interviews, we compared how family forest owners and natural resource professionals frame oak conservation. Frames are the simplified cognitive constructs that people use to represent reality; they define the space in which people interpret observations, make inferences, and solve problems (Goffman 1974). Understanding people's frames can reveal areas of conflict and compatibility in their values, beliefs, and underlying assumptions that make policy dialogs productive or intractable (Schon and Rein 1994; Yannow 2004; Putnam and Wondolleck 2003; Dryzek 1990). Using a framework created by Schneider and Ingram (1990) we also identified oak conservation policies likely to be compatible with owners' motivations. From this analysis, we identified areas of conflict and compatibility among informants' frames and policies that seemed to accommodate the interests of both owners and natural resource professionals.

Theoretical Foundations

Human-Nature Relationship

People's assumptions about the human-nature relationship influence their natural resources management and policy preferences. People with anthropocentric values

believe humans have the right to exploit nature for the benefit of society, rationalizing that technology can fix any damage; those with biocentric values view humans as merely one species among many in the biosphere yet recognize that they have the power to upset the balance of nature (Dunlap and Van Liere 1978). People with a subjugation-to-nature orientation assume that humans can do little to protect nature from natural hazards; those with a mastery-over-nature orientation assume that humans should harness natural forces for their benefit; and those with a harmony-with-nature orientation assume that human and nature are cohesive parts of a whole (Kluckhohn and Strodtbeck 1961). These assumptions about the human-nature relationship lead to a range of views on how humans should interact with nature from preservationist to interventionist (Kempton et al. 1995).

Rights and Obligations of Property Ownership

Due to volatility and conflict in people's notions of property ownership, conservation of unique habitats on private land is one of the most controversial aspects of contemporary land-use policy (Bromley 1998). In the classical individual conception of property, ownership hinges on fee simple title and presumes full control of specific valued resources with state backing (Singer 2000); conservation is a public good and its cost should be borne by society. Owners with this view believe that their rights entail exclusive privilege to do with their lands as they see fit. The individual notion of ownership stands in contrast to a more consensual or social one in which ownership is a bundle of sticks of which the owner controls many but not all of the sticks (Singer 2000). In this social view, the state protects private lands from biophysical and social threats so that owners can pursue their objectives. In return, owners protect the water quality, air quality, and wildlife valued by the public. The social notion shifts the burden of conservation from society to the individual; instead of society paying owners to conserve resources through incentives or assistance programs, owners must pay society if they chose not to conserve resources.

Role of Policy in Social Change

Differences in the relationships between experts and laypeople and technical and everyday knowledge stem from an ideological conflict in how policy should be used to influence society. Positivists treat policy problems as technical problems. Positivists use objective reasoned analysis to identify social goals and set policy to change the behavior of a self-interested polity (Howlett and Ramesh 2003; Fischer 2003). In the field of natural resources the positivist paradigm has yielded authoritative policy solutions such as rules and regulations. These tools assume that human behavior should be controlled and that people's utility-maximizing self-interests can be influenced through coercion and enticement (Howlett and Ramesh 2003; Fischer 2003). Post-positivists treat public policy as a multidimensional process in which decisions are based on both information and social process (Rist 2000). Post-positivists advocate devolved and negotiated policy designs that engage multiple voices in policy design and decision making and encourage people to examine their interests in policy issues and reframe policy debates at broader levels (Yanow 2000; Schneider and Ingram 1993; Fischer 2003). In the field of natural resources, such policy designs have taken the form oflocal collaborative initiatives (Brook et al. 2003; Wondolleck and Yaffee 2000).

Methods

Our study site was the Willamette Valley, the primary location of oak woodlands and savanna in Oregon. Study informants comprised a purposive sample of two of the main stakeholder groups in oak conservation in Oregon: landowners and natural resource professionals (i.e., individuals who are employed as experts in a natural resource field). Landowners were selected from a list of more than 80 owners who had been in contact with Oregon State University Forestry Extension, Soil and Water Conservation Districts, state and federal natural resource agencies, land trusts, and watershed councils. Informants were selected on the basis of the balance they brought to the sample with respect to parcel size, oak habitats and interest in conservation. We interviewed 36 owners, 18 individually and 18 in focus groups. We used snowball sampling to select natural resource professionals, resulting in a sample of 32 publicly and privately employed foresters, biologists, planners, ecologists, administrators, and business people. We interviewed 19 natural resource professionals individually and 17 in focus groups (4 were interviewed both individually and in focus groups). We determined the final size of the sample through theoretical saturation, the technique of capping sample size when the collection of additional units of data yields proportionally smaller units of findings (Strauss 1987).

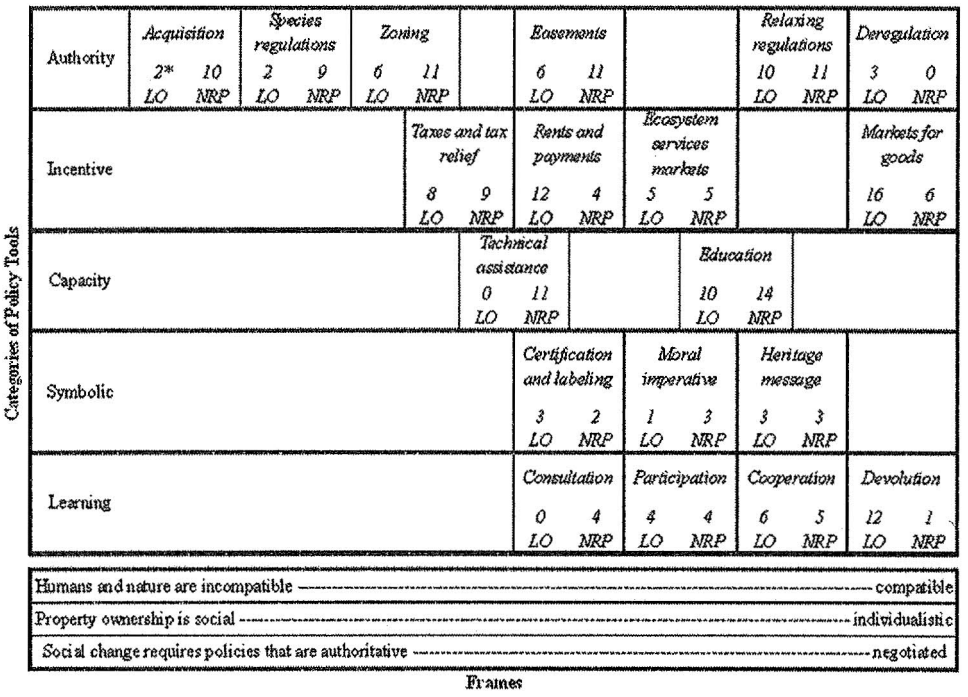
In the interviews we explored informants' knowledge and values about oak, forest management, conservation, and policy. Individual interviews lasted 2 to 3 hours each and took place outside on owners' properties or in the natural resource professionals' offices. Focus-group interviews were 6 hours long. Each took place at a local National Wildlife Refuge. We conducted focus groups in addition to individual interviews because they promote collaborative inquiry, the bringing together of multiple perspectives on the same issues (Nyden et al. 1997), which we thought would be conducive to policy development. The interviews took place over the course of 9 months.

We used a qualitative protocol of coding, memo writing, and theory building to analyze the interviews. Aided by the qualitative data analysis software Atlas.ti, we coded transcriptions of the interviews three times each to explore how owners and natural resource professionals frame oak conservation.

Finally, we analyzed policies that would best foster conservation behavior using a framework provided by Schneider and Ingram (1990). The framework is intended for examining the validity of policies' inherent assumptions about target groups' behavioral motivations. It categorizes policy utilizing five "tools" or strategies and their underlying assumptions about target groups' behavioral motivations: authority tools assume people are motivated to obey laws; incentive tools assume individuals will make choices that will lead to tangible payoffs if they have adequate information, decision-making skill, and opportunity; capacity tools assume people lack necessary information make decisions; symbolic and hortatory tools assume people are motivated by beliefs and values that can be manipulated; and learning tools assume people are uncertain about the nature of a problem and its solution, but can learn to select appropriate tools. We used the framework to identify policies that are most compatible with informants' frames for oak conservation, and owners' motivations to conserve oak in particular. We used pseudonyms to maintain informants' confidentiality.

Owners' **and** Natural Resource Professionals' Frames

Informants' preferences for conservation policies for oak stemmed from the ways they framed the human-nature relationship, the rights and obligations of



*Numbers above "LO" and "NRP" indicate owners (n=36) and natural resource professionals (n=32) that suggested each option

Figure 1. Informant's policy suggestions organized horizontally within each category of policy tool according to their location on the spectra of assumptions within each frame.

property ownership, and the role of policy in social change. Figure 1 depicts these relationships. It provides the organizing framework for our description of these three frames and their policy implications. In the figure the individual cells represent the policies that the informants' seemed to prefer and the number of owners (indicated by "LO") and natural resource professionals (indicated by "NRP") that suggested them. The figure arranges informants' policy preferences in relation to the three frames, which are displayed as spectra at the bottom of the figure. The policies are categorized in rows according to tool based on the assumed target group motivations described in Schneider and Ingram's (1990) framework. While the numbers reveal the relative popularity of each policy option, they should not be overemphasized; the numbers simplify informants' answers to the question, "What kinds of policies do you think would be most appropriate for oak?"

Human-Nature Relationship

How informants frame their views on oak conservation reveals their assumptions about the human-nature relationship, represented as a spectrum at the bottom of Figure 1. Their assumptions are particularly evident in their stated values for oak, opinions on the conservation status of oak, and goals for oak conservation.

The owners in this study seemed to conceptualize nature as a social landscape in which cultural values and human activities come before ecological processes. The majority of owners emphasized the aesthetic beauty and cultural heritage significance of oak over its ecological value. For example, Bill Waltmann, owner of

650 acres of rocky, southwest-facing oak woodland in the Cascade Mountain foothills, said that he liked the open conditions of oak savanna because they were the conditions that his ancestors encountered "in the 1850s ... [when] my poor great-great-grandparents ... walked out here from Illinois ... with a couple wagons."

Few owners recognized a regional decline of oak. For example, Mary Harten, an owner of 160 acres of mixed conifer-hardwood forest, was surprised to learn of oak's threatened status. "I live with it all around me ... It's true, the firs will over take the oaks ... [But I was surprised to learn] that on a bigger scale there was an impact happening." When owners talked about the status of oak they referred to specific parcels. This suggests that they think about oak conservation at a local scale in relation to their own land uses, confirming other findings about family forest owners' reluctance to become involved in resource management issues beyond their individual ownerships, in part out of respect for the rights of their neighbors (Fischer and Bliss 2006; 2008).

Most owners guessed that direct conversion for agriculture (especially vineyards), forestry, and residential development was the biggest cause of oak's decline, but few saw it as avoidable. Bob Jones, an architect who grazes cattle, grows hay and lives with his wife on 120 acres of oak savanna, explained:

> If a tree is in the way of production, you take it out ... Because you can't produce; you can't turn a tractor around it, and it would shade out the [other crops].

Some owners viewed land use zoning as a cause of oak's decline; when land is zoned for agriculture or forestry, owners plant farm or commercial forest crops to maintain their tax deferrals, often at the expense of oak.

When asked what should be done, owners wanted to prevent further decline of oak while being able to continue their land use activities. For example, Nancy Young, owner of 500 acres, explained, "We all agree that oaks require perpetual maintenance ... It's a great marriage to have people living on the property, connected to it and putting money into it." Many owners recommended changing land use zoning rules and natural resource regulations and creating markets (Figure 1) to allow them to generate income from tourism and housing rather than timber plantations and vineyards.

While natural resource professionals, like the owners, acknowledged oak's aesthetic and cultural value, they emphasized its ecological attributes, such as the high species diversity with which it is associated and its rarity. Alan Cox, a biologist for a conservation organization, said oak should be conserved:

> Not just for birds, but there are flora and fauna both that are associated with these communities, and if we have the opportunity to keep them going as viable species, that to me is enough reason.

All the natural resource professionals viewed oak as imperiled and argued that the vast majority of oak had disappeared, though they viewed the extent of its decline differently. Informants' views on the status of oak also reveal the spatial scales at which they approach its conservation. In contrast to owners, natural resource agents spoke about oak in the context of the entire Willamette valley, signifying that they think about oak conservation at a landscape scale and in relation to overall land use trends.

They attributed oak's decline to larger phenomena such as population growth, lifestyle trends, and the cessation of Native American burning. Several spoke about Oregon's land use system channeling development into areas with marginal soils where oak often grows in order to set aside areas with better soils for forestry and farming. Sam Larson, a biologist with a public agency, explained:

> It has always been identified as the piece of ground that nobody wants ... Politics forced the rural residential development into those areas that agriculture and forestry deem as lowest value. That's where you can go with the least resistance.

A number of public agents blamed institutional policies such as legal requirements to maintain minimum stocking levels of commercial tree species and tax deferral requirements. In addition, they identified numerous assistance and incentive programs that have encouraged owners to convert oak lands=considered marginal and unproductive-to commercial crops. Dennis Bard, an agency forester, admitted, "As a young forester, I convinced a lot of landowners to cut their oak and plant Douglas-fir. "

Natural resource professionals acknowledged that human activity is a reality, given that most oak is privately owned. While they conceded that the fate of oak is ultimately in the hands of owners, most said they would ideally like to restore oak to a preferable state. These natural resource professionals described expanding or improving the quality of oak by restricting human activity. Alan Cox argued that oak should be managed by institutions rather than individual owners.

> If it's under private ownership, the long-term security is less than under public ownership ... They don't have the resources to stay committed in the face of other factors.

Victoria Murphy, an administrator with a conservationist group, suggested:

> Over the next ten years we should be able to get between 2,000 and 3,000 acres of oak in some sort of conservation status ... purchased by the Nature Conservancy, the Fish and Wildlife Service or State Parks or in easements.

Blurry distinctions between personal values and structural forces complicate categorizing informants into to distinct human-nature orientations. Informants' frames may be attributable to the contexts from which they approach oak conservation (e.g., educational backgrounds, familiarity with conservation biology concepts, management objectives.) Due to their multiple goals, owners may be compelled to balance their own needs with what they perceive to be the needs of oak; they therefore must see compatibility in human and natural systems. An agency biologist, on the other hand, may be charged with maintaining an ecotype's native plant and animal diversity in perpetuity, and may have only one or two tools at his or her disposal, for example, regulation and land acquisition. The fact that oak is a disturbance-dependent and human-shaped system further complicates analyzing human-nature orientations. Most informants recognize that oak needs to be managed in order to be conserved. The distinguishing factor in the informants'

assumptions about nature was not whether to interfere with natural systems but who should interfere and how and whether humans can coexist with oak in this process.

Owners' values for oak reflect a belief that nature is valuable to the extent that it serves humans. Instead of framing oak as threatened by humans, the owners in the study perceived that oak is changing along with changes in human activities. They attributed oak's decline to an indisputable and undeniable human need for resources and they proposed that changing rules and regulations to accommodate more human activity would help solve its problems. This view reflects a belief that humans are compatible with nature. It reflects utilitarian values and motivation by tangible reward. Owners' frames imply an interventionist attitude toward nature; nature can benefit from human interference (Kempton et al. 1995). Yet owners did not assume a mastery-over-nature orientation (Kluckhohn and Strodtbeck 1961); they did not go so far as to advocate that human control is necessary for nature to reach its potential for health and sustainability. Instead, their views reflect more of a harmony-with-nature orientation; nature and humans are compatible. This compatibility stems from their anthropocentric view that they have the right to exploit nature because they consider themselves unique because of their capacity for culture (Dunlap and Van Liere 1978).

The natural resource professionals, on the other hand, conceptualized nature as distinct from and incompatible with human needs and activities. For the natural resource professionals, the most important features of oak were the arrays of native species and intact ecological processes. By holding societal choices and negotiable beliefs and values responsible for oak's decline, the natural resource professionals in the study framed such landscapes as exploited, unnatural ones. Perhaps as a result of their need to advance the singular ecological goals of their organizations, they believe that oak would be better off without further development. This view is evident in their preferences for placing oak in the hands of professional land managers through acquisition and easements and changing landowner behavior through incentives and regulations. At the same time, the natural resource professionals did not diametrically oppose owners' idea that increasing daily activity would be compatible with oak. They believe that while oak may have been balanced and self-sustaining in the past when periodic fires burned the landscape, its survival is now up to human ingenuity and technology. Their views also reflect an interventionist attitude (Kempton et al. 1995), as well as a belief that humans have the power to upset nature (Dunlap and Van Liere 1978).

Rights and Obligations of Property Ownership

Informants' frames for oak conservation reveal their assumptions about the rights and obligations of property ownership, the second spectrum at the bottom of Figure 1. Their assumptions are particularly evident in their views of the costs of oak conservation and owners' rights and responsibilities to conserve oak. Owners and natural resource professionals alike recognized severe economic constraints to oak conservation. However, owners framed costs in terms of foregone income and choice-making ability, while natural resource professionals focused on ways to reduce costs while encouraging owners to feel obligated to conserve oak.

Marvin Payne, owner of a small mill and 50-acre oak woodland, explained why market incentives to grow oak aren't compelling for many owners.

> It's hard to say, "I'm going to plant oak trees, and in 150 years I'm going to have a crop." For what? .. I think our economy and the land here is so good for growing Douglas-fir trees quickly that it's just really hard to compete with dollars.

Some owners viewed oak as a liability. For example, Fritz Quinn, an owner of 200 acres who is restoring oak savanna and prairie on his property to provide habitat for an endangered species, declared, "I'll be damned if I would ask any agency entomologist to come out ... I'd dig my heels in ... I'm going to do a lot more without their guidance!"

Many owners felt torn between their motivations to be true to their beliefs and values and their desire for tangible reward. For example, Nancy Young explained why she felt conflicted about conserving oak on the land she purchased as a real estate investment.

> We own the land for economic reasons, but in my heart of hearts, I would rather see it not developed and valued for what it is: oak savanna ... I've just fallen into this situation where my economic interests are directly opposed to what I believe.

On the whole, owners viewed oak as a private good about which they should control all decisions. They argued that society should help them conserve oak by paying for it. Lacey Bidwell, owner of 3,000 acres, explained, "If society thinks [oak is] that important, then everybody else has to pony up, not just the landowner." Twelve owners recommended rent and payment programs and five owners suggested ecosystem services markets (see Figure 1).

While natural resource professionals sympathized with owners' ideas about property and concerns about regulation, they feared that property individualism is eroding their ability to serve the public good. Numerous natural resource professionals mentioned that the property rights movement had made municipalities afraid to recognize and protect natural resources. Barb Lambert, a land use planner for a public agency, explained, "With the property rights movement, there's been more hesitancy to do anything in terms of [natural resource planning]." Natural resource professionals advocated incentives as an alternative to regulation, which they perceived as less socially acceptable. However they reluctantly supported using incentives to compensate owners for producing habitat out of a belief that some level of conservation should be expected from private owners.

By including loss of autonomy and liability as opportunity costs of oak conservation, the owners demonstrated an individual conception of ownership. They assume they should retain unlimited rights and opportunities even when they receive public assistance for conserving threatened habitats on their properties. While many of the owners considered themselves stewards, they framed conservation as a voluntary and altruistic activity, not one embedded in ownership. The individual notion of property ownership is also evident in owners' preferences for incentives and, particularly, compensation. Expecting to receive payment for conservation excludes conservation from the obligations of property ownership. Conservation is instead treated as a privately produced public good that should be purchased by those who demand it. Owners' concern about the opportunity costs of oak conservation reflects a motivation to maximize utility. Because owners are motivated by beliefs and values as

well as tangible reward, many experienced internal conflict between their own utilitarian and altruistic perspectives. While many owners are willing to conserve habitat, they do not want to be constrained by rules and regulations, suggesting they are not motivated by deference to authority.

Natural resource professionals sympathized with owners' individual ownership notions. They attributed oak's decline to multiple social and physical forces and did not imply that owners should bear all the costs of oak conservation. However, they demonstrated less of an individual conception of ownership than owners and more of a social one. They believe that the burden of conserving oak should be shared; owners should be willing to forfeit some autonomy and incur some liability in order to conserve it. They regret the chilling effect that the property rights movement has had on land use and conservation policy. Nevertheless, they acknowledge that oak conservation is expensive and owners need substantial reward to justify doing it. By recommending incentives, including public and market-based compensation, natural resource professionals demonstrated a willingness to compromise their policy ideals and accommodate owners in their policy preferences.

Role of Policy in Social Change

Owners' and natural resource professionals' frames for oak conservation reveal their assumptions about the role that policy should play in social change, the third spectrum at the bottom of Figure 1. Their assumptions are particularly evident in their views on whether policy should treat private ownership as a constraint or opportunity for conservation, and owners as equal or subordinate to professionals.

When asked for their opinions about strategies for conserving oak, natural resource professionals emphasized using scientific and technical knowledge. Vince Atwell, a forest ecologist with a private conservation group, advocated more research and planning before committing to on-the-ground restoration projects.

> We need to be thinking about [the] future landscape pattern that we want and how are we going to get there ... Perhaps it makes more sense, rather than restoring another 20-acre patch of open woodland, to take a grass seed field and start growing oaks because it's going to be an important stepping stone habitat for a particular species.

In the more technocratic model, owners are often an afterthought to strategies that focus on ecological attributes. For example, Randy Thomas, a county land planner, explained his view that experts should define agendas for oak, which owners should then follow.

> The way we're looking at it is to get all the parties [together], at first just the agencies and the nonprofits rather than private landowners. We want to bring them in as soon as we know what our commitment is and ... where we want to go.

Kristin Landers, an agency biologist, went further and argued that conservation requires regulation, implying that owner behavior needs to be controlled, clearly an authoritative view.

> Unless we have regulatory mechanisms in place, most people are not going to get on board ... Forcing conservation is what it's going to come to.

Not all natural resource professionals distrusted owners' abilities to conserve oak. Carla Lang criticized the top-down approach of regulatory models and advocated more landowner involvement.

> There's been a schism created that's turned into "us-and-them" ... You have to be open-minded and you have to start from where the person you're talking to is, not from where you are.

Several public agents, especially foresters, demonstrated deference toward owners, perhaps because they are owners themselves. Dennis Bard argued,

> The landowner was always the steward. The rural landowner, the one who's got his feet on the ground and his hands in the dirt ... They would have known long before us that oak was important.

He asserted that natural resource professionals have countered owners' inclinations to manage for diverse species such as oak by encouraging them to manage for conifers instead.

Six natural resource professionals suggested devolved strategies for oak conservation, for example, cooperative initiatives by private owners, industry, and technical experts to reestablish and create markets for oak. However, in general, the natural resource professionals in the study viewed policy as a way to overcome the constraint of private ownership. Sean Carter, an agency ecologist, explained:

> **In** the long run it wouldn't be a bad thing if more of it were publicly managed ... It's a long-term commitment to manage oak habitat and it's expensive ... **In** some ways what we want from oak habitat is a public good.

By publicly acquiring oak, many natural resource professionals believed society could ensure conservation of the habitat without imposing unduly on owners.

Owners, on the other hand, felt policy should treat private ownership as an opportunity for collaboration. They pointed out that they not only own the land where most of remaining oak is found but they also have knowledge about their forests and skill in forestry that make them essential partners in conservation. Fritz Quinn described his wife's strong personal connection to their forest when he recalled a contractor's claim that she wouldn't notice a few trees missing when a road was put in. "Like hell!" Fritz said. "She's going to come out here and call their names, and if they don't answer she's going to know!"

Owners pointed to public institutions as the greater barriers conservation. Five owners argued that the potential for being punished under the Endangered Species Act (ESA) for harboring listed species undermines private interest in conservation; nine argued that the heavy administrative burden associated with public conservation programs discourages them from participating. They complained that regulations such as the ESA belittle their good efforts and encourage perverse behavior by owners and animosity between owners and natural resource professionals.

Owners advocated opportunistic approaches to conserving oak, in which scientists cooperate with willing landowners on a case-by-case basis. Ten owners suggested educational strategies to help owners build their own capacity; however, no owners suggested technical assistance, the traditional expert-led approach to capacity building (Figure 1). Mary Harten explained why an educational approach makes sense.

> A lot could happen with less emphasis on public money, by people incorporating ... more information and understanding into their regular management ... without doing it for them.

Part of the reason owners prefer education strategies may be because they perceive little risk of having their choices constrained.

Owners placed more emphasis on negotiated policy strategies. Twelve owners suggested devolved, grass-roots efforts as the ideal model for private lands conservation (Figure 1). They described scenarios oflandowners learning from other owners, policymakers giving owners tools that allow them to learn to do it themselves, and owners working with policymakers to build programs that address their needs. Fritz Quinn explained the concept of grass-roots landowner networks.

> If the government came in tomorrow and said, "You've got to conserve every oak woodland in this valley," we'd say, "You can't make us go out there and pick those fir out." They can't do it with a big stick. But if we show [owners] that this is the right thing to do and it's going to make you feet good, then we do it.

Most of the tools owners suggested are more negotiated than authoritative. They seemed to view private landowners and their vested interests in their lands as assets in oak conservation. The owners described policy as an incremental process. As such, they believe that conservation would benefit from the diversity of participating owners and the unexpected discoveries of valuable habitat that an opportunistic approach would afford. While the owners acknowledged they have much to learn about the technical aspects of oak conservation, they wanted to participate in policy decisions. The owners' desire to teach themselves through cooperation with other stakeholders reflects a motivation to learn how to solve problems. Abhorring regulation, the owners preferred policy options that employ capacity building and learning tools. They were particularly interested in strategies that devolve decisions about oak to owners, such as relaxed zoning rules and grass-roots education efforts. On the whole, owners emphasized the need for policymakers and other stakeholders to put faith in owners, be honest about costs and lack of information, and be sensitive to the constraints they face. Owners wanted policymakers to reward their stewardship behavior and leave the details of implementation and accountability up to them.

The natural resource professionals in the study preferred more authoritative policies, but were also willing to entertain more negotiated approaches. Many described the institution of private land ownership, especially the diversity and unpredictability of owners' motivations, as a constraint to conservation. They described policy as a rational process through which scientific expertise should be brought to bear on the design and implementation of conservation strategies. The preference that many of the natural resource professionals had for consultation over

collaboration reveals a view of owners as the end target group of a linear decision-making process. Most of the natural resource professionals believed that conservation would benefit from policies that educate owners about better management practices and exert more control over owners' treatment of oak. They preferred top-down strategies for changing human behavior and ownership arrangements: acquisition, species regulation, and zoning-precisely the policies that agencies are mandated to use authority tools by their mission statements and legal directives. Despite their reasons for preferring authoritative policy models, natural resource professionals predicted owners would retaliate against restrictions; out of realism or perhaps empathy, they believed incentives, capacity building, and learning tools should also be pursued.

Policy Implications

An examination of the informants' policy preferences in relation to their frames and the underlying behavioral assumptions of policy tools reveals the complexity of oak conservation, as well as areas for potential conflict and cooperation between stakeholders in conservation strategies. Some policy options hold more potential than others based on their relative popularity among owners and natural resource professionals, their consistency with informants' frames, and the validity of the assumptions about owners' motivations upon which they rely.

An initial reading of Figure 1 indicates that natural resource professionals favor policy options that fall toward the left end of the frame spectra, while owners favor policy options toward the right end of the spectra. For example, the policy options suggested by more than one-third of the natural resource professionals are acquisition, species regulations, zoning, easements, taxes and tax relief, technical assistance, and education. The policy options suggested by more than one-third of the owners are relaxing regulations, rents and payment, markets for goods, education, and devolution. A few policy options that fall in the middle of spectra received balanced but more moderate support from both owners and natural resource professionals, including ecosystem services markets, campaigns encouraging conservation of oak as an aspect of cultural heritage, participation, and cooperation.

Figure 1 also indicates informants' tool preferences. The policy options that received the most support from owners are in the incentive, capacity, and learning tool categories, providing further evidence of their motivations to obtain tangible rewards, increase their abilities, and learn to solve problems. Understanding the limitations of incentive and capacity tools to conserve oak, natural resource professionals also recommended authority-based policy tools.

Several other interesting observations can be made of the figure. For example, while natural resource professionals suggested relaxing regulations, they were primarily referring to reforestation and land use rules that require the management of commercial forest or farm crops at the expense of oak. Owners wanted reduce the control that the government has over their land use decisions. Similarly, informants were interested in zoning for different reasons. Natural resource professionals wanted to use zoning to control and divert land uses in order to protect oak lands, while owners wanted to change zoning to allow for more flexibility in land uses. Another interesting observation is the apparent lack of support owners had for technical assistance. While owners clearly wanted to increase their capacity to conserve oak, as evidenced in their support for education, none mentioned technical assistance

as a preferred policy. This could be interpreted as a rejection of the technocratic, top-down model of technical assistance that has historically dominated forest owner assistance programs.

Frame Complexity

Figure 1 illustrates the multiple meanings that informants hold for oak, as evidenced by the multitude of policy options they suggested, the multiple assumptions about owners' behavioral motivations reflected in the policies, and the multiple points along the spectra of frames on which these policy suggestions fall. How owners feel about the policy option of certification is related to the conditions they see on their property, how compatible they think their activities are with habitat, their perceived rights and obligations as property owners, and their beliefs about whether policy should reward, facilitate, or penalize their management choices. The coexistence of multiple policy assumptions and frames indicates the complex causal relationships between biophysical, economic, cultural, and political forces in oak conservation and owners' interpretive frames.

Frame Conflict

Figure 1 also illustrates areas of conflict between informants' frames. An examination of the relative support for policy options by owners and natural resource professionals reveals how differences in their frames result in different policy preferences. Owners view humans as compatible with nature; as a result, they favor more interventionist conservation strategies, such as allowing more diverse uses of oak lands through changes in rules and regulations or creation of markets. Because owners hold individual notions of property ownership, they believe habitat production should be purchased by society. Because owners believe that the role of policy in social change should be to build capacity and facilitate social learning while protecting their autonomy, they prefer devolved, negotiated approaches to conservation. Natural resource professionals, on the other hand, believe many human activities are incompatible with nature. Furthermore, they work for organizations and agencies whose missions are hinged on this assumption. As a result, they gravitate toward more preservationist management strategies such placing oak under strict conservation management through acquisition and easements. Because natural resource professionals hold more social notions of property ownership, they see a role for species regulation and zoning in protecting common good. Because natural resource professionals believe that policy should control human behavior in order to protect the public good, they prefer acquisition and regulation in addition to the more realistic tools, incentives, and technical assistance. However, they do not go as far as owners to advocate deregulation or devolution.

The differences in the views of owners and natural resource professionals are indicative of a "frame dispute," the condition of different and competing frames (Goffman 1974). Dissonance exists not only in the frames used by owners and natural resource professionals as groups, but also those used by individuals. For example, two of the owners who suggested devolved, voluntary landowner-led conservation approaches also suggested protecting oak through the more authoritative policy option of acquisition. Several of the natural resource professionals who advocated acquisition of oak, treating it as a public good, also suggested providing tax

incentives to owners, treating it as a private good that must, in a way, be purchased. Several of the natural resource professionals who suggested regulating oak also suggested relaxing regulations that affect lands that support it. The six natural resource professionals who proposed creating markets for oak products to encourage maintaining and managing oak did so out of practical political considerations.

This inter- and intragroup conflict reveals that informants' policy suggestions are hinged on conflicting assumptions about owners' motivations and conflicting frames. This conflict is evidence that society is muddling through the social dialogue about how to and who should conserve habitat on private lands. It is indicative of a looming social crisis stemming from a struggle between two ideals: the pursuit of wealth and the common good (Habermas 1971). The possibility of such a crisis is evidence that the kind of rationality that has dominated the fields of planning and natural resources has failed to facilitate pursuit of these two ideals simultaneously. In the case of oak conservation, owners perceive that society does not recognize their contributi.ons to habitat conservation and that their oak conservation efforts come at personal cost. Moreover, they perceive that policy does not treat them as equal participants with equal knowledge. In contrast, natural resource professionals perceive that conservation is incompatible with human needs, that property individualism is eroding their ability to serve the public good, and that important social decisions should be made by experts.

Frame Compatibility

The fact that natural resource professionals consider capacity and learning tools despite the mandates of their institutions is indicative of their willingness to deviate from traditional policy models. This signifies an interest in compromise and cooperation. It also raises questions about the apparent conflict in their frames. Differences in informants' frames may be manifestations of structural forces, such as economics, laws, and institutional priorities, as well as personal values and beliefs. Their frames may actually be more compatible than they at first appear.

A further reading of Figure 1 reveals that there are a number of more moderate policy options located in the middle ground of the spectra that, while less popular, received more balanced support from both groups: for example, ecosystem services markets, and symbolic public campaigns linking oak conservation to the preservation of cultural heritage, participation, and cooperation. These policy options represent areas of compatibility in informants' frames. They also make sense based on an understanding of owners' motivations. The compatible policy options in Figure 1 indicate areas of common ground. They indicate that there is opportunity for groups to communicate and converge on policy strategies and to have "rational communication" about private land conservation. These findings help us zero in on a range of policy tools that informants find some agreement on and that accommodate the ways they see the world.

Promising Policy Options

The policies that emerge from this analysis as showing the most promise are those that reflect accurate assumptions about owners' motivations, accommodate landowner frames, and reflect local as well as expert knowledge. We conclude that oak conservation in Oregon's Willamette valley will be advanced by policies that (1) seek

to protect the ecological conditions with which natural resource professionals are primarily concerned as well as the aesthetic and historical landscapes that are important to many owners, (2) allow for multiple strategies at different scales to accommodate owners' diverse motivations and capacities, (3) respect owners' need for autonomy and natural resource professionals' need for accountability, (4) offset or compensate owners for the cost of oak conservation without imposing superfluous conditions and constraints, and (5) accommodate owners' preferences for devolved, negotiated decision making while ensuring an appropriate role for other stakeholders.

Conservation easements, habitat mitigation banking (an ecosystem services market), and voluntary grass-roots conservation initiatives (a form of cooperation) are worthy of consideration based on these criteria. Conservation easements satisfy owners' desires to pursue multiple management goals, be involved in the negotiation of policy terms, retain control of land, and receive compensation. Conservation easements also satisfy natural resource professionals' desire for fixed-term binding management agreements that ensure accountability to the supporting public. Habitat mitigation banking satisfies owners' need for autonomy, control over their land, and compensation, at the same time that it ensures strict management regimes and accountability for natural resource professionals. Grass-roots initiatives offer owners opportunities for devolved, voluntary participation in conservation and provide forums for landscape-level planning and involvement by experts, which are important to natural resource professionals.

References

Atterbury Consultants. 1992. *Western Oregon non-industrial private forest land inventory.* Beaverton, OR: Atterbury Consultants.

Bromley, D. 1998. Rousseau's revenge: The demise of the freehold estate. In *Who owns America? Social conflict over property rights,* ed. H. Jacobs, 19-28. Madison, WI: University of Wisconsin Press.

Brook, A., M. Zint, and R. D. Young. 2003. Landowners' responses to an Endangered Species Act listing and implications for encouraging conservation. *Conserv. Biol.* 17(6):1638-1649.

Brunson, M. W., D. T. Yarrow, S. D. Roberts, J. David, C. Guynn, and M. R. Kuhns. 1996. Non-industrial private forest owners and ecosystem management-Can they work together? *J. For. 94(6):14-21.*

Dryzek, J. S. 1990. *Discursive democracy; Politics, policy, and political science.* New York: Cambridge University Press.

Dunlap, R. and K. Van Liere. 1978. The new environmental paradigm. *J. Environ. Educ.* 9(4):10-19.

Fischer, A. P. and J. C. Bliss. 2006. Mental and biophysical terrains of biodiversity: Conservation of oak woodland on family forests. *Society Nat. Resources* 19(7):625-643.

Fischer, A. P. and J. C. Bliss. 2008. Behavioral assumptions of conservation policy: Conserving oak habitat on family-forest land in the Willamette Valley, Oregon. *Conserv. Biol.* 22(2):275-283.

Fischer, F. 2000. *Citizens, experts and the environment.* Durham, NC: Duke University Press.

Fischer, F. 2003. *Reframing public policy: Discursive politics and deliberative practices.* Oxford, England: Oxford University Press.

Goffman, E. 1974. *Frame analysis.* New York: Harper Colophon Books.

Habermas, J. 1984. *Theory of communicative action,* Vol. 1. Boston: Beacon Press.

Habermas, J. 1971. *Knowledge and human interests.* Boston: Beacon Press.

Hagar, C. J. and M. A. Stern. 2001. Avifauna in oak woodlands of the Willamette Valley, Oregon. *Northwest. Nat. 82(1):12-25.*

Holling, C. S. 1995. What barriers? What bridges? In *Barriers and bridges to the renewal of ecosystems and institutions,* eds. L. H. Gunderson, C. S. Holling and S. S. Light, 3-36. New York: Columbia University Press.

Howlett, M. and M. Ramesh. 2003. *Studying public policy. Policy cycles and policy subsystems.* Oxford, England: Oxford University Press.

Johnson, R. L., R. Alig, J. Kline, R. Moulton, and M. Rickenbach. 1999. *Management of non-industrial private forest lands: Survey results from western Oregon and Washington owners.* Research contribution 28. Corvallis: Oregon State University.

Jones, S. B., A. E. Luloff, and J. C. Finley. 1995. Another look at family forests: Facing our myths. *J. For. 93(9):41--44.*

Kempton, W., J. S. Boster, and J. A. Hartley. 1995. *Environmental values in American culture.* Cambridge, MA: Massachusetts Institute of Technology.

Klock, C., S. Smith, T. O'Neil, R. Goggans, and C. Barrett. 1998. *Willamette Valley map land use/land cover informational report.* Portland: Oregon Department of Fish and Wildlife.

Kluckhohn, F. R. and F. L. Strodtbeck. 1961. *Variations in value orientations.* Evanston, IL: Row Peterson.

Landres, P. B., R. L. Knight, T. Steward, A. Pickett, and M. L. Cadenasso. 1998. Ecological effects of administrative boundaries. **In** *Stewardship across boundaries,* eds. R. L. Knight and P. B. Landres, 39-64. Covelo, CA: Island Press.

Nyden, P., A. Figert, M. Shibley, and D. Burrows. 1997. University-community collaborative research: Adding chairs at the research table. In *Building community: Social science in action,* eds. P. Nyden, A. Figert, M. Shibley, and D. Burrows, 3-14. Thousand Oaks, CA: Pine Forge Press.

Oregon Department of Fish and Wildlife. 2006. *Oregon conservation strategy.* Salem, OR: Oregon Department of Fish and Wildlife.

Putnam, L. L. and J.M. Wondolleck. 2003. Intractability: Definitions, dimensions, distinctions. In *Making sense of intractable environmental conflicts: Concepts and cases,* eds. R. J. Lewicki, B. Grey, and M. Elliott, 35-39. Washington, DC: Island Press.

Rist, R. C. 2000. Influencing the policy process with qualitative research. **In** *Handbook of qualitative research,* eds. N. Denzin and Y. Lincoln, 545-558. Thousand Oaks, CA: Sage.

Schneider, A. and H. Ingram. 1990. Behavioral assumptions of policy tools. *Journal of Politics* 52(2):510-529.

Schon, D. A. and. M. Rein. 1994. *Frame reflection: Toward the resolution of intractable policy controversies.* New York: Basic Books.

Singer, J. W. 2000. Property and social relations: From title to entitlement. **In** *Property and values: Alternatives to public and private ownership,* eds. C. Geisler and G. Daneker, 3-20. Washington, DC: Island Press.

Standiford, R. B. 2002. California's oak woodlands. **In** *Oak forest ecoystems: Ecology and management for wildlife,* eds. W. J. McShea and W. M. Healy, 280-303. Baltimore, MD: John Hopkins University Press.

Strauss, A. L. 1987. *Qualitative analysis for social scientists.* Cambridge, UK: Cambridge University Press.

Thysell, D. R. and A. B. Carey. 2001. *Quercus garryana* communities in the Puget trough, Washington. *Northwest Sci. 75(3):219-235.*

Wondolleck, J. M. and S. L. Yaffee. 2000. *Making collaboration work: Lessons from innovation in natural resource management.* Washington, DC: Island Press.

Yanow, D. 2000. *Conducting interpretive policy analysis.* Thousand Oaks, CA: Sage.