Environmental Communication & Social Marketing

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Applied Social Science Approaches to Promoting Pro-Environmental Behavior

Understanding Barriers and Incentives to Building Rain Gardens

By Rick Chenoweth, PhD

The heart of any social marketing campaign is recognizing that in order to design an effective program, you must have a good understanding of the audience whose behavior you wish to change. Most importantly, it is essential to know what the obstacles are that prevent people from engaging in the desired pro-environmental behavior. The Community-Based Social Marketing (CBSM) program is largely about devising ways to reduce those obstacles while demonstrating greater benefits for engaging in the desired behavior.

There is a temptation for natural resource professionals to assume they already understand why people act as they do. Thus, a critical roadblock in designing a social marketing program might be circumvented: understanding peoples' perceptions by asking them directly! In addition to focus groups and other mechanisms for eliciting perceptions, surveys can be an effective tool for understanding the target audience and finding out the beliefs and attitudes that influence the likelihood of adopting pro-environment behavior that professionals wish to promote.

Paul Dearlove, manager for the Lake Ripley Management Unit in south central Wisconsin, is collaborating with UW-Madison faculty and graduate students to plan a CBSM program to motivate landowners to build rain gardens on their properties. This initiative began as a graduate student project in Professor Rick Chenoweth's course titled 'Human Behavior and Environmental Problems.' During the summer of 2007, UW-Extension Environmental Communication Specialist Bret Shaw, Professor Rick Chenoweth, and Gaylord Nelson Environmental Institute graduate student Paul Heilberger designed and administered a CBSM-based questionnaire to property owners within the Lake Ripley Management Unit boundaries. (To access the questionnaire online, visit the 'Resources' section of this newsletter). Here we briefly report on some preliminary results that we expect to be useful in the design of a CBSM program promoting the building of rain gardens by property owners.

The survey instrument was designed based on three components of the Theory of Planned Behavior (TPB), a theory which connects attitudes to behavior *(see http://people.umass.edu/aizen/tpb.html)*:

1) what people believe would be the consequences to them personally were they to try to build a rain garden and how positively or negatively they evaluate those consequences,

2) what they believe significant others think they should do, and

3) the extent to which they believe they have the necessary resources to be able to build a rain garden.

Additional information was obtained that would permit the lake manager to segment the audience to see if there were differences between important subgroups (e.g., year-round versus seasonal landowners).

Contrary to expectations, the survey found that most respondents already felt they had an understanding of rain gardens or that they could easily acquire information about them. These results suggest that a lack of knowledge about rain gardens is not a major barrier to a person's intention to build a rain garden in the next couple of years and that additional information is not required to induce people to build a rain garden on their property. Indeed, most respondents seemed to already have an understanding of the potentially important link between rain gardens and water quality.

Rain gardens help reduce surface runoff

illustration courtesy of USDA-NRCS

One important barrier noted that might be a reason landowners do not build rain gardens is a preference to have a yard that is mostly lawn. For many, this appears to be both an aesthetic consideration and a cultural norm. Using computer-generated simulations of what a rain garden might look like on an individual's property could be an important

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About this Newsletter

Environmental Communication and Social Marketing **provides a forum for communication between professionals in the social and natural sciences who share a common interest in promoting behaviors that will positively impact the environment. The newsletter is multidisciplinary in nature, emphasizing theoretically-informed, evidence-based approaches to behavioral change.**

UW Extension Environmental Resources Center

Environmental Communication & Social Marketing

Co-Editors:

Rick Chenoweth, Ph.D., is a social and environmental psychologist and emeritus professor in the Department of Urban & Regional Planning at UW-Madison. For many years he taught a course titled *Human Behavior and Environmental Problems* to graduate students in the natural sciences.
rechenow@wisc.edu
608-263-4153

Bret Shaw, Ph.D., is the Environmental Communication Specialist for UW-Extension and an Assistant Professor in the Department of Life Sciences Communication at UW-Madison. He focuses on outreach activities related to issues such as water quality and land stewardship initiatives.
brshaw@wisc.edu
608-890-1878

Editorial Assistant

Heather Akin is a Master's candidate in Life Sciences Communication at UW-Madison.

Graphic design by Jeffrey J. Strobel, UW-Extension Environmental Resources Center

UW Extension

Department of Urban and Regional Planning

LifeSciences Communication

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In the Field

Environmental Behavior Change Programs Across Wisconsin

This section highlights research projects in Wisconsin that were recently completed or are currently in progress. Each was designed to provide insights about how to most effectively encourage behavior change to improve the environment. To submit your own community-based social marketing or applied communication campaign designed to influence environmental behavior change to be featured in future issues, contact Bret Shaw at brshaw@wisc.edu or 608-890-1878.

Using Community-Based Social Marketing to Promote the Removal of Aquatic Plants from Boats and Trailers in Wisconsin

A research project is currently underway to better understand how to prevent the spread of aquatic invasive species in Wisconsin. This project has three objectives:

1) Conduct focus groups with boaters to elicit perceived benefits and barriers to the removal of aquatic plants from boats and boat trailers when entering and leaving lakes;

2) Field a survey to determine how social norms, beliefs, attitudes, and external barriers influence people's decisions to clean their boats and trailers before launching in a lake, and;

3) Use the results of the focus groups and surveys to develop a community-based social marketing pilot program to promote the removal of aquatic plants from boats.

The project is coordinated by Therese Aschkenase, a master's student with the Nelson Institute for Environmental Studies at the University of Wisconsin-Madison. The data will be used to help the Clean Boats, Clean Waters initiative at UW-Stevens Point.

This project is funded by the Wisconsin Department of Natural Resources, UW-Extension Environmental Resources Center at UW-Madison, and the UW-Extension Lakes Program at Stevens Point.

For more information, contact Therese Aschkenase by e-mail at taaschkenase@wisc.edu or by phone at 608-698-3159.

Lake Butte des Morts Shoreland Owners Survey

In 2007, the University of Wisconsin-Extension, the Winnebago Lakes Council, and the Butte des Morts Conservation Club conducted a survey of lakeshore residents around Lake Butte des Morts to determine the perceptions lake residents have about lake-related conservation practices, and particularly how residents view low or no phosphorus fertilizer and buffers.

Understanding residents' views of conservation practices was deemed critical for planning future outreach efforts that support improved water quality in the Lake Winnebago System. The data provided numerous insights of interest, such as individuals caring about their lawns but they also wanted to make decisions based on fish and wildlife habitat and water quality.

These results suggest that outreach professionals developing a phosphorous-free fertilizer campaign would need to make the connection to how phosphorous could be detrimental to fish and wildlife habitat as well as water quality. They would also want to educate citizens that phosphorous is not needed to keep their lawns looking good. The biggest concerns respondents had about buffers were that they look messy, obstruct lake views, and decrease lake access. The local Land Conservation Department is now working with potential clients to design buffers with shorter plants, which have a more formal look to them, and that allow adequate lake access where needed.

Many respondents considered agricultural practices as the major sources of pollution to Lake Butte des Morts, and thought that "closer to home" practices (pet waste, grass clippings and leaves, lawn fertilizers/pesticides, etc.) contributed very little to pollution. Considering this, outreach campaigns should focus on making the connection between these practices and the potential for pollution; showing residents that while local sources may not be major pollution sources individually, they add up to potentially large sources that can be controlled.

For more information or to receive a full copy of this report, contact Chad Cook by phone at 920-232-1990 or by e-mail at chad.cook@ces.uwex.edu

Jeffrey J. Strobel

A naturally-landscaped shoreline property

Service-Learning Project Researching How to Prevent Spread of Aquatic Invasive Species

A strategic communication class in the School of Journalism and Mass Communication at the University of Wisconsin received a grant from the Morgridge Center for Public Service to help the Clean Boats, Clean Waters initiative at UW-Stevens Point. The project is focused on developing strategies to encourage people to clean their boats when moving from one body of water to another.

The grant supports about 1,200 hours of time from students enrolled in the course. Potential

Eurasian Watermilfoil

target audiences being considered are general anglers, fishing guides, tournament fishermen, marinas, recreational boaters, and pleasure boaters (pontoon riders, yachts). The class includes both qualitative and quantitative research that will be compiled for reports and presentations to Extension and Wisconsin Department of Natural Resources about improving the current outreach initiatives for Clean Boats, Clean Waters.

For more information, contact the course Professor, Dominique Brossard, by e-mail at dbrossard@wisc.edu or by phone at 608-263-4701. You can also contact the UW-Extension partner on the project, Bret Shaw, at brshaw@wisc.edu or 608-890-1878.

Person Profile: *Erin Henegar*

By Heather Akin, Graduate Student, Department of Life Sciences Communication

Henegar

Erin Henegar is the aquatic invasive species volunteer coordinator for Wisconsin's Clean Boats, Clean Waters program. Spearheaded by the Wisconsin Lakes Partnership – a collaboration between the University of Wisconsin-Extension, the Department of Natural Resources (DNR), and the Wisconsin Association of Lakes – this initiative is taking action to halt the problem of spreading invasive species at the source: at boat landings throughout the state.

Based at the UW-Stevens Point, Henegar coordinates and trains volunteers to educate, conduct boat inspections, and gather data on boaters' behaviors. The initiative seeks to not only increase knowledge about the spread of aquatic invasive species, but also investigate what it takes to motivate long-term behavior changes in boating habits.

The rapid spread of aquatic invasive species could be one of the greatest threats to Wisconsin's inland lakes. Species like zebra mussels, Eurasian water-milfoil, and purple loosestrife are spreading rampantly among the state's waters, often because these unwelcome guests are hitching rides on the bottoms of boats and trailers. As boaters move from one body of water to another, so do the invasive species. Volunteers who deal directly with the boating public are a critical element in the state's effort to control the spread of invasive species.

Many of the program's volunteers belong to a lake association or group of community members concerned about the health of their lakes and the threat that aquatic invasive species may pose. After attending a free three-hour training, volunteers are prepared to perform watercraft inspections, collect data, and educate boaters about the primary steps to prevent the arrival of new invasive species or worsen the problem of existing invasive species. The five primary prevention steps are:

1) inspecting and removing any aquatic plants, animals, or mud from equipment;
2) draining all water from the boat or other containers before leaving the landing;
3) icing any catch (including not leaving the landing with any live bait, fish, or fish eggs);
4) disposing of any unused bait in the garbage instead of on water or land, and;
5) rinsing a boat with hot or high-pressured water, or letting a boat dry for five days, before putting it back in the water.

"Many boaters have never been asked to follow these steps. They're not difficult, but they do require some commitment," said Henegar. She believes the use of volunteers in the Clean Boats, Clean Waters program may have a broad impact that enhances other traditional forms of education and informational campaigns.

"Put yourself in the place of a boater who encounters a Clean Boats, Clean Waters volunteer. The volunteer says 'I live on this lake. I'm volunteering to tell you about this problem,'" said Henegar. "Hearing 'this is my lake, this is my own time' has a real impact. People are so bombarded in every part of their life, actually having someone talking to them on their lake can be more meaningful."

Not only are volunteers educating boaters about aquatic invasive species in their lakes, they are also collecting data about boaters' attitudes and awareness of the problem. Volunteers inquire about behaviors, ask boaters if they've heard of aquatic invasive species and how they learned about them, and if they are aware of the aquatic invasive species law which prohibits someone from putting a boat in the water if aquatic plants or zebra mussels are attached to it.

Volunteers collect data at the landings and enter it into an online system, known as the Surface Water Integrated Monitoring System or SWIMS, administered by the DNR. The data is summarized every year since the program's inception in 2004.

"Since 2004, we've seen an increase in awareness and the number of boaters that say they are following the prevention steps," said Henegar. "We're really interested in the period of time it takes people to change their habits and how long it will be until we see an increase in certain behaviors. We'd like to find out what we can do to make taking preventative actions a part of normal, everyday behaviors."

One of the most notable successes of the program is the enthusiasm of the volunteers; the program boasts over 1,000 volunteers who stand on their boat landing on weekends and holidays, when these recreational sites tend to me most visited, to educate their fellow community members about preventing the spread of aquatic invasive species.

To learn more about this program or become involved, visit www.uwsp.edu/cnr/uwexlakes/cbcw or contact Erin Henegar by e-mail at erin.henegar@uwsp.edu or by phone at 715-346-4978.

Resources – *Fostering Environmental Behavior Change*

The section offers a space to share helpful resources on programs and educational projects aimed at fostering environmental behavior change. Professionals developing programs to motivate environmental behavior change will find these resources useful for starting, improving, or building on current programs. To submit a resource for publication in this newsletter, contact Bret Shaw at brshaw@wisc.edu or 608-890-1878.

Social Marketing Webinars

Cullbridge Marketing and Communication, located in Ottawa, Canada, offers real time, interactive, web-based seminars that focus on various aspects of social marketing as they might apply to the specific projects of the webinar participants. Find out more at:
http://www.cullbridge.com/Services/Social_Marketing_Workshops.htm

Social Marketing Online Resources

Supported by Environment Canada and other sponsors, Cullbridge Marketing and Communication maintains a website where you can find several social marketing resources, including a guide/workbook that can help guide you through the CBSM planning process. You can find out more by following this link: *http://toolsofchange.com/English/firstsplit.asp*

Fostering Sustainable Behavior Website

Douglas McKenzie-Mohr, author of *Fostering Sustainable Behavior: An Introduction to Community-based Social Marketing,* hosts a website (*www.cbsm.com*) that offers numerous resources, including an online guide which provides valuable information on the use of community-based social marketing to design and evaluate programs for fostering sustainable behavior; searchable databases of articles, cases, graphics, and downloadable reports on fostering sustainable behavior, and discussion forums for sharing information and asking questions of others. At this website, you can find a good summary of CBSM: *http://cbsm.com/Reports/CBSM.pdf*

CBSM-based Questionnaire Available Online

This newsletter's feature article (on page 1) about a Community-Based Social Marketing project in Wisconsin's Lake Ripley watershed area mentions a survey administered in the summer of 2007 by Professor Rick Chenoweth and Asst. Professor Bret Shaw from UW-Madison, Nelson Institute for Environmental Studies graduate student Paul Heilberger, and Lake Ripley Management District Manager Paul Dearlove. The survey was based on several aspects of the Theory of Planned Behavior in order to measure the likelihood and consequences of building a rain garden on their property to minimize the flow of phosphorous into the watershed. To view the questionnaire, visit:
http://lakeripley1.homestead.com/files/Rain_Garden_Opinion_Survey.pdf

Sustainability Newsletter

The Sustainability Team of UW-Extension publishes an Internet-based newsletter focusing on sustainability issues and activities in the state. The newsletter includes updates about ongoing projects, success stories, upcoming conferences and workshops, new products, programs, or resources. It looks at broad issues such as climate change, peak oil (and the end of cheap energy), and global resource depletion as well as specific interest areas that include biofuels and the bioeconomy, alternative energy sources, sustainable economic development, eco-municipalities, food systems/local foods, community planning for sustainability, and education campaigns. To sign up for the newsletter or submit stories for potential publication, email Jerry Hembd at: *jhembd@uwsuper.edu*

Understanding Barriers and Incentives to Building Rain Gardens

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tool for overcoming this barrier. As more rain gardens appear in a neighborhood over time, one might expect a shift in the norms for the acceptability of rain gardens on private residential property.

Respondents were asked to rate the extent to which six different potential obstacles would be important deterrents in building a rain garden where 1= not at all and 6 = very much. Four of these deterrents were seen as real obstacles: cost and expense, having insufficient time, believing it would be too much work, and not having the requisite knowledge. However, none of these received a mean score of over 3.75, implying that a well-designed CBSM program can overcome these obstacles.

One of the strongest single predictors of an individual's intention to build a rain garden on their property in the next couple of years is the availability of cost sharing. It will be important for the Lake Ripley Management Unit to devise ways in which incentives, in the form of cost sharing, might occur to encourage landowners to build a rain garden on their property. Discounts from nurseries with native plants might be one way to create some cost sharing in a way that benefits both the nursery and the landowner.

Preliminary analysis of the survey data revealed that the Theory of Planned Behavior did a good job predicting whether respondents intended to install a rain garden in the near future. The strongest predictor of behavioral intent was beliefs about what would be the outcomes of building a rain garden on their property, including whether installing rain gardens would improve water quality, whether it would enhance wildlife habitat or increase property value, together with the degree to which they positively valued these possible outcomes. Those who believed these outcomes were likely to occur if they built a rain garden and valued these outcomes very positively were more likely to express an intention to build a rain garden on their property. This finding suggests that in addition to cost-sharing incentives, a successful CBSM campaign should emphasize these particular outcomes when designing communications promoting the building of rain gardens.

Another significant predictor of behavioral intent was the degree to which respondents' believed significant others, such as friends, family and neighbors, would look favorably toward them installing a rain garden. Most respondents cared about what these reference groups thought. This finding suggests that a social marketing campaign aimed at building social norms among friends, families and neighbors might be an important addition to the kinds of persuasive communications typically designed for individual consumption. It also may make sense to promote "community days" in which neighbors, friends and family are recruited to be a part of fun events that focus on installing rain gardens for property owners in the Lake Ripley watershed.

The Lake Ripley survey is different from many environmentally-oriented questionnaires that query people about what they know about something or how favorably or unfavorably they regard that something. By contrast, the Lake Ripley survey is based on the components of the Theory of Planned Behavior. Thus, it includes measures of what people think would be the consequences to themselves if they were to install a rain garden, together with how favorably or unfavorably they regard those consequences. By using these kinds of items, it is possible to identify the major perceived obstacles that would prevent residents of the Lake Ripley watershed from installing a rain garden on their property. The design of the CBSM campaign will rely heavily on this understanding; the selection and application of CBSM tools will be tailored to overcome the specific perceived obstacles uncovered by the Lake Ripley survey.

Using Social Indicators to Reduce Nonpoint Source Pollution

By Ken Genskow, Assistant Professor, UW-Madison Department of Urban and Regional Planning

Nonpoint source (NPS) pollution originates from the actions of individual decision-makers at diffuse locations across a landscape. Current NPS control and reduction projects encourage individuals to adopt various management practices that can be expected to reduce and prevent NPS. Those efforts are largely voluntary and rely on persuasion, technical and financial assistance, and capacity building. Because there is a time-lag between improvements on the land and their potential impacts on water quality, water quality measures don't necessarily reflect accomplishments of NPS projects that are likely to have a payoff in improved water quality in the future. Thus, it is difficult for individual projects, state-level programs, and multi-state NPS initiatives to document progress toward the goals of improved and protected water quality.

For practical reasons, reporting and evaluation for NPS efforts emphasize outputs such as materials developed, meetings conducted, funds expended, practices installed, modeled loads reduced, and so on. NPS projects generally do not assess whether their efforts have addressed the factors most likely to influence individual decisions for adopting and maintaining appropriate management practices. Nor do they focus on "critical" geographic areas that have higher potential for contributing to NPS problems.

In response to this situation, a team of university researchers and agency staff across the multi-state Great Lakes Region (USEPA Region 5) has developed a system for using "social indicators" for NPS project management. Applied to NPS projects, social indicators are measures that provide information about awareness, attitudes, constraints, capacity, and behaviors that are expected to lead to water quality improvement and protection. By measuring these social indicators over time, water quality managers can better target their project activities and assess their accomplishments.

The development team worked with stakeholders across the region to identify a set of thirteen "core" social indicators that address important components of practice-adoption and capacity-building processes. The indicators can be aggregated across projects and across state programs.

A broader set of "supplemental" social indicators was also identified for potential future development and application. The indicators will help project staff focus and evaluate their efforts toward:

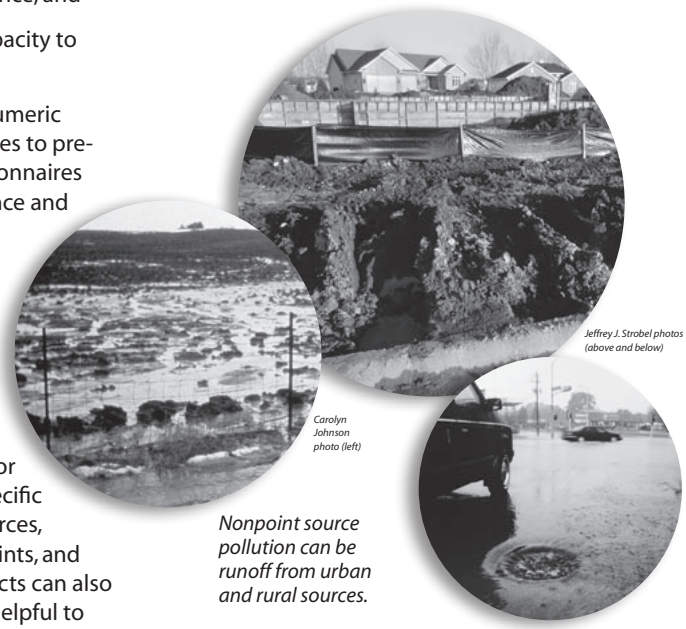
1) increasing NPS awareness and knowledge among their target audience;
2) changing attitudes in a way that might facilitate the adoption of NPS practices;
3) reducing constraints to adoption of NPS management practice;
4) increasing use of NPS management practices of the target audience; and
5) increasing their project's capacity to address NPS water issues.

The core social indicators are numeric measures derived from responses to pre-project and post-project questionnaires completed by the target audience and project staff. As part of the development initiative, the regional team has created an online support system to help projects produce questionnaires, enter and analyze data, and apply their results. The questionnaires use consistent formats to collect social indicator data while enabling project-specific customization for pollution sources, management practices, constraints, and communication channels. Projects can also add locally relevant questions helpful to their planning and management efforts.

For an example of how this system would work, consider an NPS project focused on reducing sediments and nutrients in an agricultural watershed. After using models to identify areas with a high potential for contributing sediments and nutrients, project staff identify the individuals making decisions for those lands as their target audience. They use a social indicators questionnaire to collect information from their target audience about perceptions and knowledge about local water quality issues, awareness and use of relevant management practices, factors that motivate and constrain actions, and trusted local sources of information.

Responses influence the project's outreach efforts and form baseline values for indicators related to awareness, attitudes, constraints, and behaviors. As the project ends, staff follows up with another questionnaire to measure their success and complete an assessment of their activities and local capacity to continue addressing the issues.

The regional social indicators project is beginning a three-year pilot-testing phase. Pilot testing will assess the indicators, the effectiveness of alternative collection methods, and the overall usability and utility of the indicators system for NPS projects and state-level programs. Pilot projects will use established protocols for documenting issues related to staff capacity, level of assistance provided during implementation, costs, and other questions of interest. The regional team is working with the state NPS programs across the Great Lakes Region to identify pilot projects to test the system. In Wisconsin, the indicators are being tested for planning efforts in the Lower Fox River Basin. Other Wisconsin pilot projects will be identified soon.



Jeffrey J. Strobel photos (above and below)

Carolyn Johnson photo (left)

Nonpoint source pollution can be runoff from urban and rural sources.

Using this social indicators system requires environmental planning approaches to identify water quality concerns and critical areas for management efforts. The development team hopes that social indicators will help NPS projects to identify and engage their target audiences more effectively, and over time, to better assess and adapt their efforts. Over the next few years, the project will provide insights on the practical aspects of integrating social data into NPS planning and management.

For additional details and updates on this project, visit http://www.uwex.edu/ces/regionalwaterquality/Flagships/Indicators.htm or contact Ken Genskow via e-mail at kgenskow@wisc.edu

Theory of Planned Behavior: Linking Attitudes to Behavior Change

By Rick Chenoweth, Bret Shaw, and Heather Akin

In each issue of this newsletter, *Environmental Communication and Social Marketing,* we plan to highlight one theory or conceptual model drawn from the social and behavioral sciences that we believe can help natural resources professionals design more effective outreach initiatives. In this issue, we provide a very broad overview of the Theory of Planned Behavior (TPB).

The term "attitude" is often used, rather loosely, in discussions of resource protection. Often the term is used interchangeably with other terms such as preferences, beliefs, opinions, values and so on. Stated somewhat simplistically, the idea is that if we could change peoples' attitudes, it would be followed by a corresponding change in environmental behavior. A lot of outreach and educational materials are based on an assumption that educating people and changing their "attitudes" will result in a desired behavioral change. But will it?

In social psychology the concept of attitude is probably the single most widely used theoretical term and it has been the subject of a huge body of literature going all the way back to 1935. Social scientists have long struggled with the question "why don't attitudes do a better job of predicting behavior?"

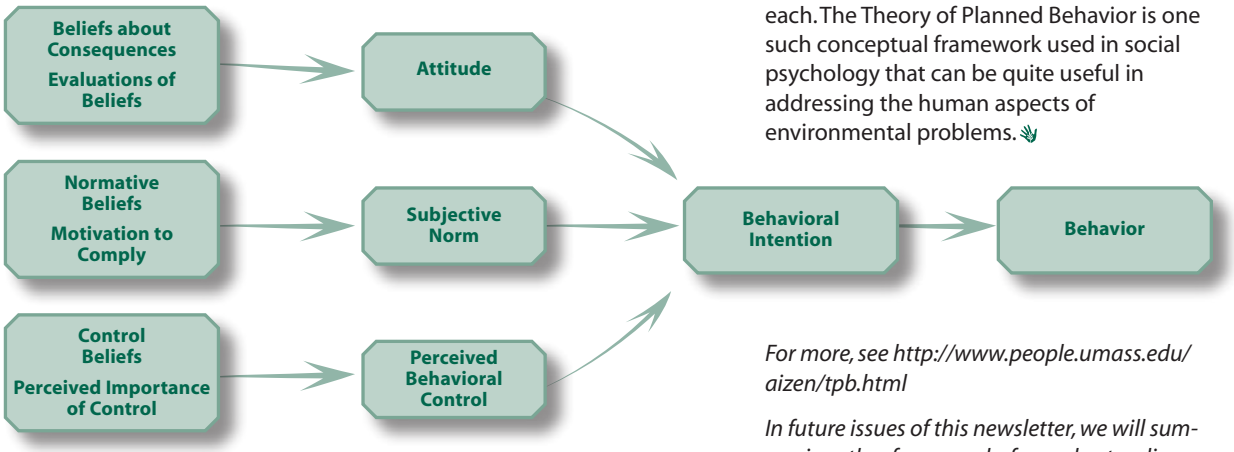
In the mid 1960s, social psychologist Martin Fishbein proposed a new way of conceptualizing and measuring attitudes and embedded the concept in a model for predicting human behavior known as the Theory of Reasoned Action. Later, his student Icek Ajzen expanded on the model and called it the Theory of Planned Behavior (TPB). There is now a very substantial empirical literature that confirms the success of the TPB model in being able to predict a very diverse array of human behaviors. The theory of planned behavior has more than 1,200 research bibliographies in academic databases such as Communication and Mass Media Complete, Academic Search Premier, PsychARTICLES, PsychINFO, and Business Source Premier.

The implication for natural resources professionals is that by using the TPB as a framework for understanding human behavior and by correctly measuring the components of the TPB model, they are in a much better position to know what variables control the behaviors they wish to influence. Outreach and educational efforts can then be better focused on changing those variables that actually do predict the likelihood that people in the target audience will engage in the desired pro-environmental behavior.

So what are the major factors that influence people's behavior? According to the TPB, human action is guided by three kinds of considerations:

1) beliefs about the likely outcomes of the behavior and the evaluations of these outcomes (behavioral beliefs),
2) beliefs about the normative expectations of others and motivation to comply with these expectations (normative beliefs), and
3) beliefs about the presence of factors that may facilitate or impede performance of the behavior and the perceived power of these factors (control beliefs).

These factors are summarized in the diagram below.



In the TPB model, "attitude" is conceptualized as a set of beliefs about what would be the likelihood to them personally of various outcomes or consequences were they to engage in the behavior in question together with how positively or negatively they evaluate those consequences.

Social norms are what an individual believes is expected of them by others whose advice or opinions they value together with how motivated they are to comply.

The third factor is perceived behavior control, i.e., the extent to which an individual believes that external factors together with their own abilities are such that they actually could do the behavior if they wanted to.

Together, the three major factors of the TPB have been shown to be among the most consistently successful predictors of a variety of different human behaviors. The use of this conceptual framework in the arena of environmentally-relevant behaviors, as well as the measurement methods associated with it, holds the promise of helping to construct more effective outreach programs and mechanisms for changing environmentally destructive behaviors to more sustainable human behaviors.

The source of many environmental problems, such as the transport of aquatic invasive species, applications of pesticides or herbicides, etc., can be traced to the actions of individuals as they go about their daily lives. In order to influence those actions, it would be advantageous for natural resources professionals and social scientists to know something about the conceptual frameworks and models used by each other's disciplines. Moreover, effective solutions to practical, real-life environmental problems will require productive collaborations across disciplinary lines using ways of thinking drawn from each. The Theory of Planned Behavior is one such conceptual framework used in social psychology that can be quite useful in addressing the human aspects of environmental problems.

For more, see http://www.people.umass.edu/aizen/tpb.html

In future issues of this newsletter, we will summarize other frameworks for understanding human behavior that could be used in an interdisciplinary context to address issues of common concern to social and natural scientists alike. We will also direct the reader to other resources where they can learn more on their own.

Changing Public Behavior Initiative Offers New Resources for Water Outreach Programs

By Elaine Andrews, Interim Director, UW-Extension Environmental Resources Center

Community involvement and education are essential to implementing successful water quality plans across the nation. Research shows that when educators target specific audiences, their work is more likely to be successful. Water management professionals who want to improve their understanding of the education process are finding that using social science tools helps them better understand their audiences and improve community-based outreach efforts.

With funding from the U.S. Department of Agriculture's Cooperative State Research, Education, and Extension Service (CSREES), the University of Wisconsin-Extension Environmental Resources Center is providing resources and training to ensure effective outreach initiatives throughout the state.

The program, called '*Changing Public Behavior: Increase Citizen Involvement Using Target Audience Information,*' provides resources that help natural resource professionals educate the public so citizens become more informed about water quality issues and develop good water stewardship skills.

Two initiatives within this program, *'Best Education Practices (BEPs),'* and *'Changing Public Behavior,'* help to achieve these goals. Best Education Practices tips help a natural resource professional plan an outreach initiative. Changing Public Behavior resources help a professional tailor an initiative to a particular audience and to specific goals. Through workshops and online resources and training, the program helps an educator connect a situation with the mindset of the target audience, choose achievable goals, select relevant outreach techniques, and achieve measurable results.

Resources on the Water Outreach Education Web site (*http://wateroutreach.uwex.edu*) help natural resource managers set up or improve water education or outreach programs, measure best education practices, and access other Internet resources that can help them reach water management goals.

The *Changing Public Behavior* project focuses attention on the people components of the education planning process: becoming familiar with the "community of interest," defining and assessing the target audience, and actively engaging the target audience in planning. Some additional resources include an online searchable database of research-based, target audience information that allows educators to search through findings by audience studied, by outreach practices, or by best education practices employed; easy to use, cost-effective community analysis tools; and a self-study module that provides a step-by-step process for learning new water outreach skills. This online training resource provides background information and practice opportunities.

To learn more about the program or utilize some of the Changing Public Behavior tools and resources, visit http://wateroutreach.uwex.edu/CPBhomepage1.cfm

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How Do You Choose a Target Behavior for a CBSM Program?

continued from back cover

network of professionals who might assist those who are preparing to plan a CBSM program.

4) Is there an opportunity to use an array of CBSM tools to change the behavior? If the only obstacle to getting people to do an environmentally desirable behavior is a lack of information, then communicating this information in an effective manner may be all that is needed. In fact, when questioning people about the perceived obstacles and benefits they associate with doing a potential target behavior, one might find that a lack of knowledge of what to do and how to do it is a common problem. But it is rare that a lack of information is the only obstacle. Indeed, there is a substantial literature showing that when education/information is the only approach used, it may not bring about the actual changes in behavior envisioned by the campaign. There is abundant literature in the behavioral sciences on the relationship between attitudes, beliefs, values, and knowledge on the one hand and behavior on the other. This literature is often confusing and we hope to bring some clarity to this in future issues of the newsletter. For now, however, one of the criteria to be considered in selecting a target behavior for a CBSM approach is whether an array of CBSM tools might be brought to bear. That is, in addition to the more traditional information approaches, ask yourself if there might be an opportunity to deploy the use of prompts, obtain commitments, create social norms, or use either monetary or social incentives to change the potential target behavior. Creating effective communications to inform people or to change their attitudes will likely be a part of any program to improve environmental behaviors, including CBSM programs. But the focus of the CBSM approach is, above all, on changing behavior and it is likely that more tools than education will be needed to effect behavioral change.

Do you really have to choose only one behavior? Is that enough? What if there are many behaviors that need to change to have an impact the resource? This is a tough set of questions, and any one answer is not likely to satisfy the true skeptic. But there are several possible answers that are worth considering.

It might be true that a resource is negatively impacted by quite a large number of different behaviors in which people are commonly engaged, but it may well be that one behavior stands out from the rest as a good target behavior.

MacKenzie-Mohr offers some other ways of thinking about the issue of choosing only one behavior. First, it may be easier to get people to engage in other related pro-environmental behaviors once they have adopted the target behavior in a CBSM program. Second, because CBSM programs are typically implemented at the community level, those who are reluctant to change their behavior might be influenced to do so by those in their community who do adopt the target behavior.

Choosing a behavior to be a target for a CBSM program is not easy. But using the criteria we've described here might serve as a guide for discussing the options. Those planning a CBSM program might want to add additional criteria that make sense for their particular situation.

In the next issue of this newsletter, we will attempt to address another question that often arises when preparing to plan a CBSM program: The CBSM approach described by MacKenzie-Mohr has a lot of steps – do you have to do all of the steps? – or can you leave some steps out and still get the kind of behavior change you want? In other words, are there some shortcuts that you can take, still call it a CBSM program and still be effective? These are important questions, especially since it costs both time and resources to plan and implement a CBSM program. Stay tuned.

Q&A:

How Do You Choose a Target Behavior for a CBSM Program?

By Rick Chenoweth, Ph.D.

In each issue of the newsletter, we will use this column to address one question raised by readers about the use of social marketing and communication tools, including Community-Based Social Marketing (CBSM). We don't pretend to have all the answers; rather we hope to shed some light through the lens of the social and behavioral sciences. Indeed, readers who have wrestled with some of the questions that will be addressed in this column are invited to share their experiences and solutions with other readers. In this issue, we look at selecting a single behavior to target using the CBSM approach.

It now appears that there are a substantial number of resource managers, UW-Extension personnel and representatives of non-profit organizations in Wisconsin who have either taken a Doug MacKenzie-Mohr workshop on community-based social marketing (CBSM) or read the book titled *Fostering Sustainable Behavior: An Introduction to Community-based Social Marketing*. Many others have at least discussed this approach with colleagues and questioned whether CBSM might be added to the agency or organization's arsenal. Both the book and the workshop provide a useful guide to CBSM. But some have found that when they try to plan a CBSM-based campaign, they encounter a bewildering array of questions. One of the first questions that arises is how to select one, just one, target behavior. Because the perceived benefits and obstacles associated with different target behaviors might well be different depending on which behavior is chosen, how do you chose? What if a behavior is complex: comprised by a set of separate, discrete behaviors that may have different perceived benefits and obstacles?

The first focus should always be on the environmental issue that would be addressed if individuals changed their behavior. For example, if the issue is the runoff of nutrients into particular lakes or streams, then it is possible to brainstorm a set of behaviors that an individual could do that would be expected to directly reduce runoff. Just a few of the possibilities are planting buffers, replacing non-porous areas with porous areas, using no-phosphorus fertilizer, or creating a rain garden.

Criteria for selecting a target behavior

There are at least four criteria that might be used to choose a behavior that would be targeted by a CBSM approach or at least narrow the range of options. These criteria are listed below, together with a brief discussion of each. The criteria are not in any order of importance. What criteria make the most sense for any given situation is a judgment call that will be arrived at after discussions with colleagues, consideration of the resources available to plan and implement the program, and so on.

1) What are the external barriers? If there are obvious exterior barriers to a particular behavior that are simply unsurmountable within a group that has been chosen as the target audience, choosing that behavior without first reducing the exterior barriers would be self-defeating. For example, a behavior might involve the purchase of certain costly materials; those who cannot afford the expense, even if they are amenable to changing their current behavior, will not adopt the target behavior; they are not able to do so. A careful consideration of the external barriers associated with each of the potential behavioral choices will reduce the range of behaviors for further consideration. Michael Rothschild has an article that is useful in understanding what factors to consider when trying to decide between legal approaches, traditional educational approaches, or social marketing approaches to behavioral change; *The Motivation, Opportunity, and Ability (MOA) Matrix*. See *http://www.social-marketing.org/papers/carrotarticle.pdf*

2) Will the impact on the environment be direct and immediate? Paul Stern has developed a conceptual framework called Value-Belief-Norm Theory (VBN) (see Stern's article, *Toward a Coherent Theory of Environmentally Significant Behavior* published in the 2000 issue of *The Journal of Social Issues*). VBN makes an important, empirically-supported distinction between four different categories of environmentally relevant behavior. Only one of these categories is the focus of community-based social marketing: private-sphere environmentalism. These are behaviors that have a direct and immediate environmental impact; consumer choices of products and one-time or daily behavioral choices between alternative behaviors; e.g., sweeping up grass clippings after mowing one's yard versus leaving the clippings on the driveway or street. While the behavior of one individual might have little impact, the aggregate of many people changing their behavior could have a dramatic impact on the environment. Some have commented that government rules and regulations have been largely successful in dealing with some environmental problems, such as point-source pollution. Now we need to turn our attention to the difficult-to-regulate behaviors of individuals as they make choices and engage in daily behaviors. These are the kinds of behaviors for which CBSM was designed.

Other categories of behavior might ultimately have a large impact on the environment in positive or negative ways, but are not the focus of CBSM; (1) active involvement in environmental organizations, (2) non-activist support of environmental objectives such as signing petitions, voting "green" or contributing to environmental organizations and (3) influencing the actions of organization to which an individual belongs are all behaviors that can have a positive impact on the environmental issue of concern. Because these behaviors do not have immediate consequences on the environment, they are not typically the focus of a CBSM approach.

3) What will be the magnitude of positive impact on the resource? Some behaviors have little impact on the resource, even when many people change their behavior. Because the ultimate goal is to positively impact the environment, it is obvious that selecting a behavior that will have a larger positive impact would be the preferred target behavior. Estimating the magnitude of the environmental impact is neither easy nor precise. Natural resources expertise is necessary, making it important to have a

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