Title
Student, major; Mentor, department

Project Description
In response to surveys indicating that environmental issues have low priority relative to other issues, such as the economy and job growth (Nordhaus and Shellenberger 2007), environmental ethicists such as Andrew Light and Bryan Norton have argued that the environmental movement cannot make headway by appealing solely to the "intrinsic value" of nature (Light 2002; Norton 2005). However, other ethicists argue that in order to promote effective change on behalf of the environment, we must create an environmental consciousness in society, and to do that we must reject anthropocentric, human-centered arguments and appeal directly to the intrinsic value of nature (Katz and Oechsli 1993). This project examines the practical feasibility and ethical effectiveness of employing what I will call "anthropocentric indirect arguments" that defend environmentally friendly actions or policies based on the ways they can help achieve other human goals such as economic growth or public health.

Research Question
This project will examine key ethical issues surrounding the use of indirect arguments that appeal to anthropocentric, non-environmental benefits (e.g., job creation, economic growth, and creation of more livable communities). Will these anthropocentric indirect arguments prove to be motivating in both the short and long term? And from an ethical perspective, how should these sorts of arguments be employed in order to avoid the charge that they are mere propaganda to convince people to do the right thing for the wrong reasons?

Project Goals and Objectives
This project has three major goals. (1) I will characterize the current literature on the ethical strengths and weaknesses of using indirect arguments for environmental protection. (2) I will examine the existing psychological research on the short- and long-term effects of these indirect arguments on people's motivations and attitudes toward the environment to identify specific conditions under which the arguments work particularly well or poorly. (3) On the basis of this psychological research, I will revisit the ethical literature and evaluate the ethical appropriateness of employing indirect arguments under various conditions. I will also identify what sorts of additional psychological studies (if any) would be helpful for analyzing the ethical strengths and weaknesses of these arguments.

Project Impact/Significance
The International Panel on Climate Change stated that, "taken as a whole, the range of published evidence indicates that the net damage costs of climate change are likely to be significant and to increase over time" (IPCC 2007, 17). These damages include increased global temperatures, reduced amounts of available freshwater, potential for severe flooding, and significant agricultural disruption. Nevertheless, it is very difficult to motivate the public to take action in response to this sort of long-term problem. I hope to gain insights about how to create arguments that are both maximally effective and ethically acceptable for addressing environmental problems like climate change. Ideally, this will help to create a cultural shift in people's perceptions of the environment and encourage more people to take action to address environmental issues.

Project Design Methodology
The first stage of my research will involve examining the existing ethical literature on anthropocentric and non-anthropocentric environmental arguments to identify the major ethical strengths and weaknesses of using indirect arguments to defend environmentally beneficial policies (see e.g., Norton 2005; Nordhaus and Shellenberger 2007; Maibach 2010; Callicott 2002; Leopold 19996; Taylor 1986). The second stage of research will involve examining existing psychological research on the short-term and long-term effects of different types of arguments (especially anthropocentric indirect arguments), including their effects on people's attitudes toward the environment (see e.g., McKenzie-Mohr 2000; Ittelson 1974; Gifford 1987). The final stage of research will involve analyzing the efficacy and ethical legitimacy of indirect arguments for environmental protection on the basis of the literature that I will have examined. This will require: (1) characterizing the motivational power of indirect arguments relative to arguments that appeal directly to the value of nature, (2) clarifying the conditions under which indirect arguments work especially well or poorly, (3) determining whether there are ethical reasons why indirect arguments could be unacceptable (e.g., if they prevented people from

coming to value the environment for its own sake), and (4) examining whether there are ways to resolve those ethical worries.

Project Timeline

August	Readings on anthropocentric and non-anthropocentric arguments
September	
October	Readings about current psychological environmental research (behavioral and cognitive)
November	
December	
January	Examining the overlap of successful environmental psychology and environmental ethics
February	
March	Final synthesizing of literature and conclusions relating to the most effective environmental arguments; National Conference on Undergraduate Research; Discover USC
April	
May	Presentations to various interest groups
June	Annual Meeting of International Society for Environmental Ethics

Anticipated Results
The final goal of this research is to identify what ethically sound arguments will be the most effective in creating short-term habit change as well as a long-term cultural shift regarding the environment. I plan on presenting my findings at Discover USC; attending the 11th annual meeting of International Society for Environmental Ethics and hopefully the National Conference on Undergraduate Research in Washington DC; and presenting the conclusions to student groups on campus such as SAGE, Net Impact, and SEAS. Along with many presentations I hope to be able to develop a published paper in an environmental ethics journal such as *Environmental Ethics* or *Ethics, Policy, and Environment.*

Personal Statement
I am extremely interested in pursuing a career in environmental lobbying in the future. After taking an environmental ethics class here at the university I realized the solution to global climate change does not lie in the policies and regulations that are proposed and enacted, but rather by the underlying ethics that drive people's motives and actions. I consider lobbying a career dedicated to redefining people's perceptions of the environment. This project will give me many resources to help facilitate these future plans by teaching me about the underlying motivators and inhibitors of individual environmental responsibility. Along with its support toward my future career goals, this research will give me a solid resource to present and expose to people on the USC campus as well as the Columbia community.

Works Cited

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Nordhaus, Ted, and Michael Shellenberger. *Break Through: From the Death of Environmentalism to the Politics of Possibility.* Boston: Houghton Mifflin, 2007. Print.

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Magellan Scholar BUDGET FORM

Student's Name:

Student salary	Hours Estimated number of hours student will work	Rate Enter the hourly wage	Subtotal
Research hours during semesters when enrolled in classes	170	$10.00	$1,890.00
Research hours during semesters when NOT enrolled in classes	20	$10.00	$200.00
Fringe: Student salary * student fringe rate (What is fringe? See budget instructions or guidebook)			
Enrolled in classes	$1,890.00	0.55%	$10.40
NOT enrolled in classes	$200.00	8.30%	$16.60
Materials/Supplies	Enter sub-total from below:		$20.00
Travel	Enter sub-total from below:		$866.00

	TOTAL:	**$3,003.00**

	Amount requested for MGS award:	**$3,000.00**

Budget Justification

Student Salary: Indicate estimated number of student research hours per week and hourly rate separated by semesters when student is enrolled in classes or not enrolled in classes (generally fall or spring vs summer semesters).

July and August: $10 per hour for 40 hours (5 hours per week)

Fall Semester: $10 per hour for 100 hours (7 hours per week)

Winter Break: $10 per hour for 20 hours (5 hours per week)

Spring Semester (Mid. January-Mid. March): $10 per hour for 30 hours (4 hours per week)

Materials/Supplies: Indicate items, quantity, and estimated price. *Be sure to include taxes on all purchases.*

Printing for Discover USC Poster $20

Travel: Indicate location, purpose of travel, estimate itemized costs (transportation, lodging, registration, etc).

National Conference on Undergraduate Research in Washington, D.C.

    Conference Fee: $185   Transportation: $0.40 per mile for 800 miles = $320

    Hotel: $150 per night x 3 nights = $450 Meals: $32 per day for 3 days =$96 TOTAL= $866