Big climate-change challenge is altering human behavior

By Bob Doppelt
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Based on the number of e-mails and letters, my Sept. 21 column touched a nerve.

I wrote about the George Mason/Yale University study describing how Americans view global warming. A main theme of many of the responses was how best to motivate people to alter their behavior. Thatmay be the most important question facing humanity today.

Never in history has the need been more urgent for broad-scale change in human thinking and practices. Numerous new science assessments have determined that global warming is speeding up, particularly in the Arctic. Without fundamental shifts in our assumptions, beliefs and practices, it is clear we are on a collision course with the planet.

Some prominent natural and social scientists recently came to the same conclusion. The group — led by Paul Ehrlich, president of the Center for Conservation Biology at Stanford University — launched the Millennium Assessment of Human Behavior. Ehrlich said that the most central need today is not more natural science. What is urgently needed is a "better understanding of human behaviors and how they can be altered to direct humanity toward a sustainable society before it is too late."

Study after study points to something many people don't want to acknowledge: We can't continue our present path, and new technologies alone cannot prevent uncontrollable global warming. New thinking and behaviors are essential.

Just one recent example: A study by the Urban Land Institute on the travel patterns of Americans concluded that more fuel-efficient vehicles and cleaner fuels by themselves cannot reduce carbon emissions to safe levels. Major shifts in travel patterns and behaviors are needed, such as driving fewer miles at slower speeds, avoiding gas-burning traffic jams and reducing the number of times American's drive their vehicles.

Numerous structural and economic barriers stand in the way of this change. Commercial outlets in Eugene are widely dispersed, for example, and many are not easily reached using public transportation. The way we plan our infrastructure, design our technologies and form our policies, however, is a reflection of our core assumptions and beliefs. And big policy changes won't happen until a sufficient number of people alter their thinking.

So, how can shifts behavior come about? Many theories of change exist. Underlying the different approaches are some common principles.

First, people are motivated to make fundamental shifts in their attitudes and actions only when they feel sufficient "tension" or "dissonance" between a desired condition and their current state of affairs. Unless people are sufficiently troubled by the prospects of global warming, they will have little reason to alter their views or behaviors.

Even if people recognize the adverse effects of global warming, however, they are not likely to engage in or support solutions unless they believe the problem can be solved through actions they and others are capable of undertaking. This second core principle of deep-seated personal change is that people must feel sufficient "self-efficacy."

Closely related is the third key: People must believe that the advantages of new behavior far outweigh the disadvantages.

The George Mason/Yale study shed some light on where Americans stand on these core principles of change.

The researchers found that only 18 percent of Americans are "alarmed" enough by global warming to personally engage in solutions. Another 33 percent are "concerned," but their level of motivation is not strong enough to become personally involved. Forty-two percent of the public is not particularly worried, and the researchers concluded that the remaining 7 percent feel no discomfort at all.

Although a majority of Americans believe it is possible to reduce global warming, very few are confident we will do so. For example, only 8 percent of the alarmed and concerned populations — the groups with

the greatest apprehension — are convinced that humans will make the changes needed to solve the problem. And 50 percent of American's see very few benefits of doing so.

So it appears the level of tension among the general public is modest, self-efficacy is extremely low, and at least half of Americans see few benefits of engaging in or supporting efforts to reduce global warming. No wonder progress has been slow.

Global warming cannot be resolved without broad scale cognitive and behavioral changes. To bring this about, the risks of inaction must be made crystal clear. Equally important is the need to visibly demonstrate that success is possible and that it will provide numerous important benefits for Americans today and tomorrow.