The Dragons of Inaction
Meet
The Theory of Behavioral Choice

Understanding and Overcoming the Intention-Behavior Gap in Sustainability and Climate Change

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PERCHÉ COSÌ TARDI? PERCHÉ COSÌ LENTI?

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Sono felice di essere con te

Sono felice di essere ovunque!

Per favore, scusa la mia mancanza di italiano

Place is Important!
I am speaking to you from western Canada…
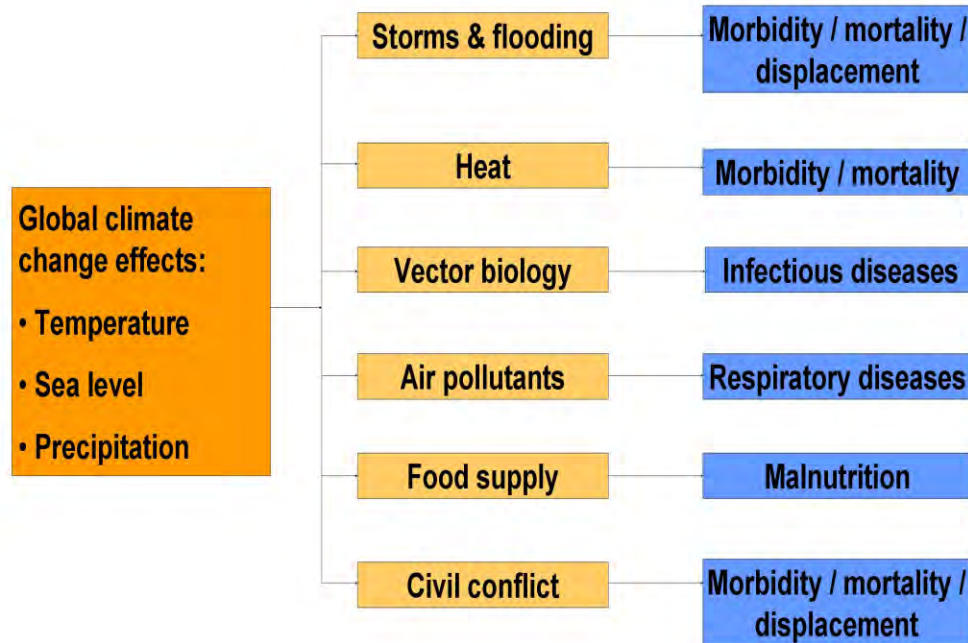

Victoria

The Problem

Environmental damage is inarguably anthropogenic, at least to a significant degree.

It Is, and Will Be, Very Serious

Potential Impacts of Global Climate Change on Human Health

Global climate change effects:		
• Temperature	Storms & flooding	Morbidity / mortality / displacement
• Sea level	Heat	Morbidity / mortality
• Precipitation	Vector biology	Infectious diseases
	Air pollutants	Respiratory diseases
	Food supply	Malnutrition
	Civil conflict	Morbidity / mortality / displacement

Some Causes of Climate Problems

- **Various structural-macro influences, including…**
  - **Geophysical factors (Can't live without heat or A/C?)**
  - **Economic factors (Marketing, grow-or-die capitalism)**
  - **Technological factors (My ride is so comfy!)**
  - **Infrastructure problems (Ride a bike in traffic?)**
  - **Political constraints (Getting legislation passed is hard)**

But Ultimately, It's About…Us

**Citizens, from the average person to the CEO,
including you and me,
are the agents of emissions**

- **Each of us makes choices every day**
- **These choices matter in the aggregate**
- **Government? It generally leads by following us**
- **Industry? It depends on our purchase choices**

"There are no environmental problems, only human problems"

Many People Not Doing Enough
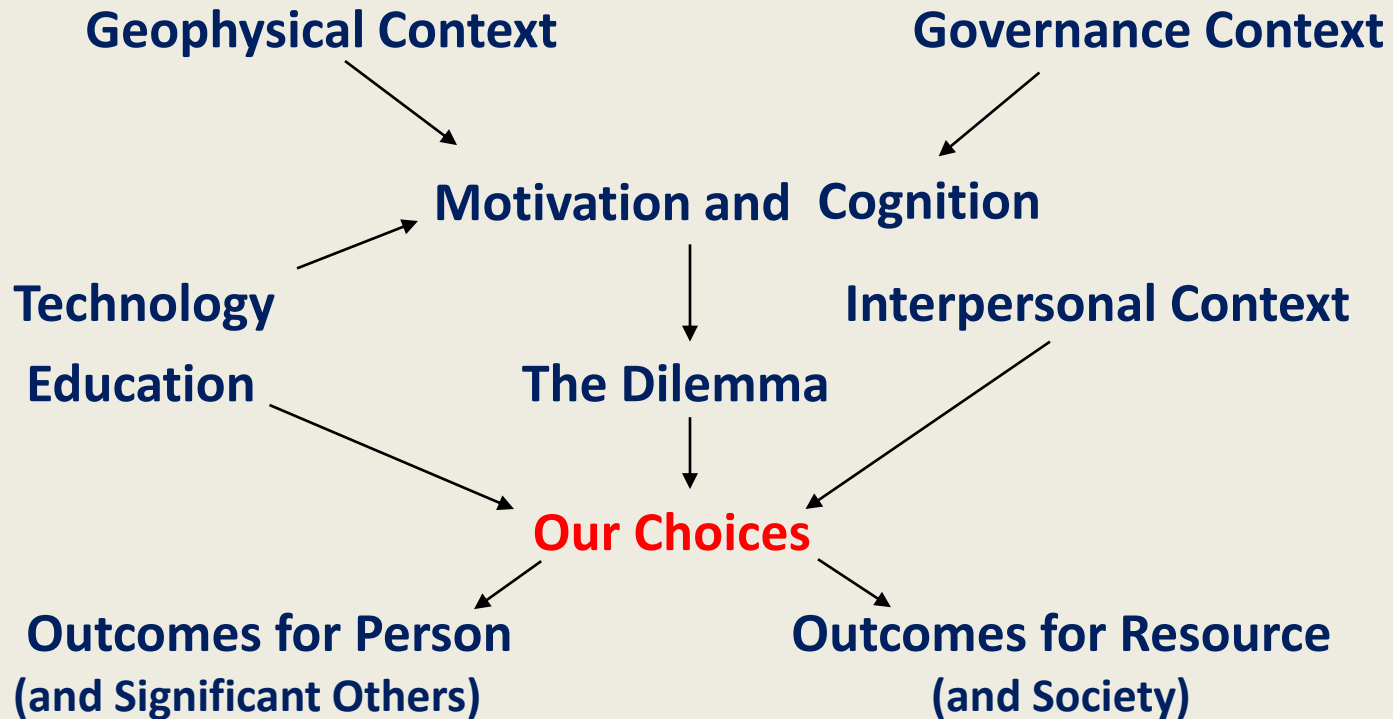## (even if they say they care)

Why not?

Well, partly because…

"Man (sic) is not a rational animal,
he (sic again) is a rationalizing animal."

Robert Heinlein, *Assignment in Eternity* (1953)

My General Model

Geophysical Context

Governance Context

Motivation and Cognition

Technology
Education

Interpersonal Context

The Dilemma

Our Choices

Outcomes for Person
(and Significant Others)

Outcomes for Resource
(and Society)

Gifford, R. (2006). A general model of social dilemmas. *International Journal of Ecological Economics and Statistics*, 5, 23-40.

If We Don't Do (All) That We Should…

Why not?

Answer:

The Dragons of Inaction

Seven Dragon Genera

(incorporating 38 species in all, so far)

- **Limited Cognition**
- **Ideologies**
- **Other People**
- **Investments**
- **Discredence**
- **Perceived Risks**
- **Limited Behavior**

(For details see: "The Dragons of Inaction" in *American Psychologist*, 2011)

Or visit: dragonsofinaction.com

Limited Cognition

- **Ancient Brain**

- **Information Deficit**

- **Environmental Numbness**

- **Uncertainty**

- **Temporal Discounting**

- **Spatial Discounting**

- **Optimism Bias**

- **Perceived Lack of Control**

- **Time-is-Money Thinking**

- **Perceived Physical Inability**

Ideologies

- **Political Worldviews**
- **System Justification**
- **Suprahuman Powers**
- **Technosalvation**

Other People and Choice of Media Sources

- **Social Comparison**
- **Social Norms**
- **Perceived Inequity**
- **Authority Rules**
- **Because I Can!**
- **Confirmation Bias**
- **Better than Average**

CO_2 emissions per capita

55%

3%

⅙ of world's population   ⅙ of world's population
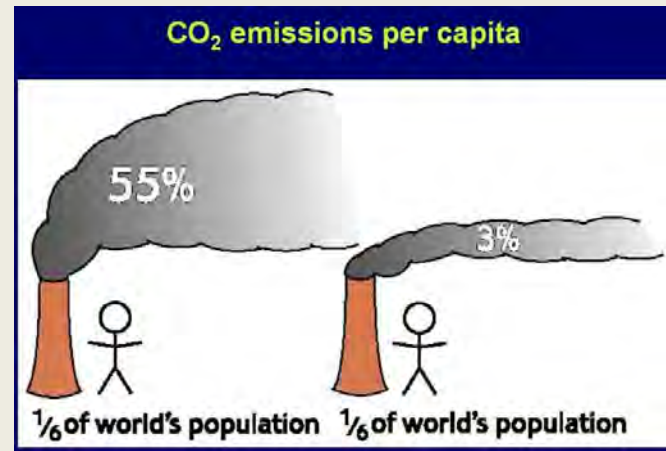
Sunk Costs

- **Financial Investments**
- **Behavioural Momentum**
- **Conflicting Goals and Aspirations**
- **(Lack of) Place Attachment**

Perceived Risks

- **Social**
- **Psychological**
- **Financial**
- **Functional**
- **Physical**
- **Temporal**

Discredence

- **Perceived Program Inadequacy**
- **Mistrust**
- **Reactance**
- **Contrarian Personality**
- **Denial**

"All men having power ought to be mistrusted."

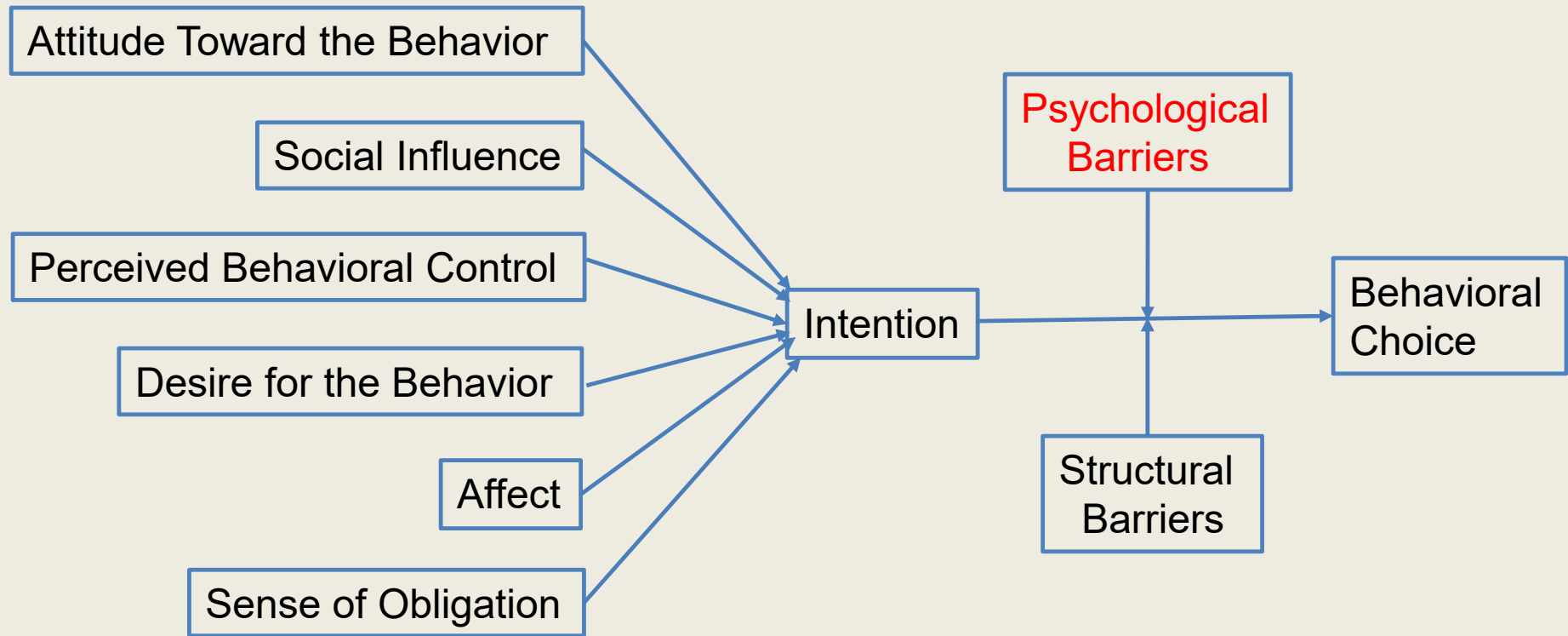James Madison

Limited Behavior

- **Tokenism**

- **Rebound Effect**
  (The Jevons Paradox)

PS: The dragons can now be studied empirically, using this new scale:

Lacroix, K., Gifford, R., & Chen, A. (2019). Developing and validating the Dragons of Inaction Psychological Barriers (DIPB) scale. *Journal of Environmental Psychology*, *63*, 9-18.

Theory of Behavioral Choice

Attitude Toward the Behavior

Social Influence

Perceived Behavioral Control

Desire for the Behavior

Affect

Sense of Obligation

Intention

Psychological Barriers

Structural Barriers

Behavioral Choice

Gifford, R., Lacroix, K., & Chen, A. (2018). Understanding responses to climate change: Psychological barriers to mitigation and a new theory of behavioral choice. In Clayton, S. & Manning, C. *Psychology and climate change: Human perceptions, impacts, and responses* (pp. 161-184). London. UK: Academic Press.

So, What *Can* We Do?

The Role of Behavioral Science

Seven solutions

Seven Ways to Slay Dragons

1. Develop a better understanding of impactful behaviors:

- What exactly *do* people do? Measure actual behavior
- Learn which *are* the most impactful choices
- Identify the chief dragons for defined groups
- Learn which are the easiest, cheapest to overcome
- Learn which choices are simply not going to change
- Assess the variations in the rates of the key behavior choices
- Discover the antecedents of these choices

Yes, this is a
daunting task,
but do it we must!

Seven Ways to Slay Dragons

2. Develop and evaluate interventions:

- **About 22 messaging strategies are now under study**

- **Evaluate the effectiveness of interventions**

Seven Ways to Slay Dragons

3. Work together!

- **More physical knowledge (climate scientists)**

- **Better technology (engineers)**

- **Better buildings and communities (architects and urban planners)**

- **Better understanding of citizens' choices (environmental psychologists)**

- **Better policies (government policy analysts)**

Seven Ways to Slay Dragons

4. **Make environment "Now" (because it is!):**

- **Community-based (network) diffusion**
- **Facilitate local amateur scientists**
- **Develop local social networks**

Seven Ways to Slay Dragons

5. Join the policy development process:

- **Not at the table = Not in the policy**
- **Choose your comfort level: Organizational, neighborhood, municipal, regional, national—but do get involved!**

Some Ways to Slay Dragons

6. Reward the mules!

Muli??   **Yes, muli…we're doing all we can!**

# Some Ways to Slay Dragons

7. Reward the honeybees, too!

Much, perhaps *most*, pro-climate behavior is NOT done to mitigate climate change, for example…

- ✓ Cycling mainly for health
- ✓ Insulating to save money
- ✓ Voluntary simplicity lifestyles
- ✓ Childless by choice

Honeybees are helping, even if they are not on board the climate train! Let's reward them!

To accelerate climate-positive behavior choices, we must better understand…

(a) the varieties of citizens,
(b) the variations in their climate-related behaviors, and
(c) their main dragons
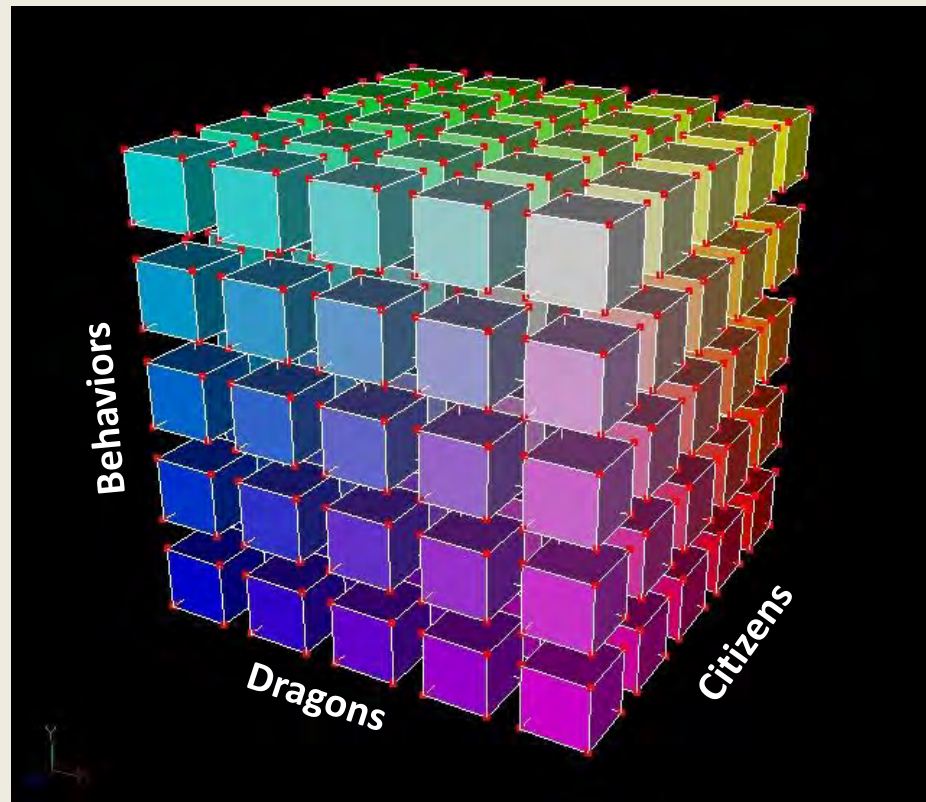
Dr. Gifford's Take-Home Message:

Climate Change Action =

 + −

Want to make this personal?

Dragon Self-Diagnosis

Dragons:	Environmental Zones:	Transport (e.g., more public transport or bike)	Home Heating (e.g., keep it down to the sweater level)	Food (e.g., move toward vegan)	Hot Water (e.g., use much less)	Material Goods (e.g., buy fewer optionals)	Air Travel (e.g. fewer by-choice trips)
Thinking							
	This is just a "here-and-now" choice						
	I lack information about how to change						
	Message heard so often that I no longer hear it						
	I am generally uncertain about this						
	Any negative consequences are distant						
	My reading shows this change is unnecessary						
	Don't worry; it will work out OK						
	This change is not my choice						
	I don't have time to do this						
	I am not physically able to do this						
Worldviews							
	Free enterprise will solve this						
	Mother nature will solve this						
	The All-Powerful will solve this						
	I am fine with the way things are						
	Technical experts will find a solution						
Other People							
	Others like me do this, so why not?						
	This is normal behaviour for someone like me						
	If others won't change, why should I?						
Sunk Costs							
	I have serious money tied up in this						
	This is my habit; it's too hard to break						
	I have other, more important, goals						
	Not attached to this place, so this doesn't matter						
Discredence							
	I don't trust these so-called experts						
	There's not enough policy incentive to change						
	Climate change is not a big problem						
	I don't like to be forced to change						
Risks							
	Alternatives simply may not work better						
	Alternatives may be dangerous						
	Alternatives probably are too expensive						
	Alternatives might get me teased						
	Alternatives might get me bullied						
	Alternatives will likely cost me time						
Behaviour							
	I do enough for the environment already						
	If I did this, I should get a bit of a reward						

Grazie per l'attenzione!

Questions? Comments? I am here, virtually...

Or later? rgifford@uvic.ca

Check out the dragons online:
Dragonsofinaction.com