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Guilt and Environmental Behavior

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Synonyms

Ecoguilt and environmental behavior; Green-guilt and environmental behavior

Definition

Ecoguilt is a negative affective state or feeling that occurs when people perceive they have failed to meet personal or social standards for environmentally friendly behavior. People can reduce ecoguilt by engaging in pro-environmental actions to bring behavior in line with normative standards. However, individuals may also avoid or reduce ecoguilt by creating justifications for their antienvironmental behavior or by psychologically minimizing the severity of the environmental crisis (Mallett & Swim, 2004).

Distinguishing Guilt from Related Concepts. The terms guilt and shame are often used interchangeably, but the two emotions are associated with different behavioral action tendencies. In comparison to guilt, shame results when we conclude that a harmful action is not a temporary slip, but a sign of our flawed character (Tangney, 2002). Research shows that guilt is typically a more adaptive emotion than shame (Tangney, 1995). Whereas guilt encourages making amends or engaging in reparative behavior, shame encourages withdrawal from the domain of the transgression in the form of denial or avoidance (Lewis, 1971). Interventions that attempt to shame individuals into changing their environmentally related behavior may be ineffective (Mallett, Melchiori, & Strickroth, 2013). Indeed, they may backfire by creating anger or resentment towards the individual or organization doing the shaming.

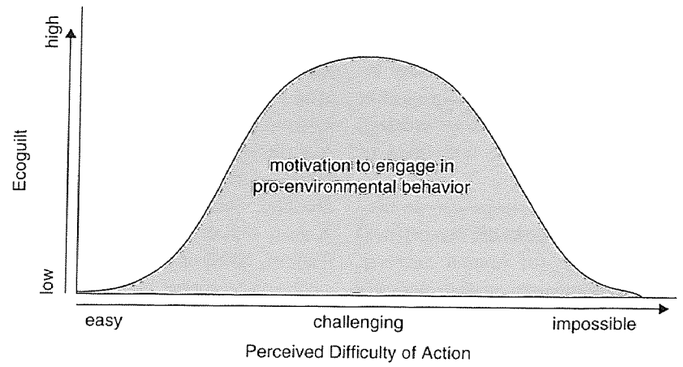
Research also examines feelings of ▶ anxiety that arise when individuals consider the implications of climate change for human survival. Unlike ecoguilt, environmental anxiety does not require consideration of either personal or group responsibility for a specific behavior or class of behaviors. Anxiety is associated with feelings that catastrophic environmental events are unpredictable and outside of one's control, and the anxiety typically motivates one to prepare for upcoming events (Barlow, 2002). Environmental anxiety has the potential to become disabling if people obsessively worry about environmental catastrophes that are unlikely to personally affect them, relative to other well-recognized dangers such as motor vehicle accidents (Rabinowitz & Poljak, 2003). Therefore, interventions that are designed to promote pro-environmental attitudes or behaviors would likely be more effective if they targeted feelings of guilt, rather than shame or anxiety.

Description

Definition. Personal guilt occurs when individuals accept responsibility for a transgression that has caused harm to another person (Estrada-Hollenbeck & Heatherton, 1998; Frijda, 1988). Similarly, ecoguilt is a feeling of regret for one's failure to protect the environment from harm (Kaiser, 2006). If individuals value the environment and consider a time when they could have done something to protect the environment, but did not do so, then they should experience ecoguilt (Mallett, 2012; Mallett et al., 2013).

Emotions motivate behavior and are thus motivational states (Frijda, 1986). Guilt is a motivational state that promotes reparative action such as apologizing or attempting to make up for a harmful behavior (Frijda, Kuipers, & ter Schure, 1989). Guilt helps people learn from past mistakes and avoid similar acts in the future (Monteith, 1993). Research shows that individuals are likely to feel ecoguilt when they consider environmentally harmful acts that they have personally committed (e.g., leaving the lights or television on when not at home; Grasmick, Bursik, & Kinsey, 1991; Harland, Staats, & Wilke, 2007; Kaiser, 2006; Kaiser, Schultz, Berenguer, Corral-Verdugo, & Tankha, 2008) or when they compare their impact on the environment with the lesser impact of other members of their social group (e.g., via an online carbon footprint calculator; Mallett et al., 2013). The feelings of ecoguilt that arise because of past harmful behavior or unfavorable social comparisons are then associated with intentions to engage in more positive, environmentally friendly behaviors in the future.

Individuals may also experience collective ecoguilt for an environmentally harmful behavior that was performed by a social group to which they belong. Collective guilt occurs when people acknowledge that a social group to which they belong has harmed another group (Doosje, Branscombe, Spears, & Manstead, 1998). For example, White Americans may experience collective guilt when they consider their racial group's history of involvement with enslaving African Americans. Considering the experience of collective ecoguilt is useful because it allows for the possibility that one's personal environmental behavior need not be directly tied to the experience of ecoguilt. That is, even individuals who take every opportunity to protect the environment can experience collective ecoguilt if they perceive that their group engages in environmentally harmful behavior (Ferguson & Branscombe, 2010). For example, a student who belongs to an environmental organization on campus may experience collective ecoguilt when considering the fact that university does not have a recycling program. Similarly, drawing attention to a discrepancy between environmental values and actual behavior and then inducing eco-friendly individuals to consider their own mortality increases collective ecoguilt (Harrison & Mallett, in press). Collective ecoguilt, in turn, is associated with willingness



Guilt and Environmental Behavior, Fig. 1 The curvilinear relation between ecoguilt and the perceived difficulty of a pro-environmental action for the motivation to engage in pro-environmental behavior. As the perceived difficulty of the action increases from easy to challenging, ecoguilt *increases*. However, as the perceived difficulty of action increases from challenging to impossible, ecoguilt *decreases*

to engage in both personal (e.g., conserving electricity at home) and group level (e.g., willingness to pay green taxes) reparative behaviors (Ferguson & Branscombe, 2010).

There may be a curvilinear relation between the intensity of guilt experienced and the motivation to engage in reparative pro-environmental behavior. A curvilinear relation is one where the two variables do not simply increase or decrease together along a continuum. Instead, the two variables may be positively (as one variable increases, the other also increases) or negatively (as one variable decreases, the other increases) related until they reach a certain point, at which they begin to have the opposite relation. When graphically represented, this pattern forms a curved line (see Fig. 1).

The perceived difficulty of repairing damage to the environment should determine the point at which the relation between ecoguilt and the motivation to engage in pro-environmental behavior changes from positive to negative. Drawing from Brehm's (1999) theory of emotional intensity, failure to engage in easy pro-environmental behaviors should result in little guilt because little effort is required to relieve the negative affective state. That is, when protecting the environment is relatively effortless, ecoguilt should remain low even if a person takes no pro-environmental action, as the potential harm done by not engaging in the behavior is easily repaired. For example, if an individual perceives that turning off lights is a simple, yet effective, way of conserving energy, that individual may not feel guilty for occasionally forgetting to turn off the lights. However, guilt should increase along with the amount of effort that is perceived to be necessary to repair a wrong doing. In the case of ecoguilt, as the perceived difficulty of a pro-environmental action increases, so too should feelings of ecoguilt. For example, in comparison to turning off the lights when they leave a room, most people would see it as more difficult to adjust the set point on their water heater. If a person cares about the environment, then ecoguilt should be lower for failing to turn off lights than for failing to adjust the set point on the water heater. Ecoguilt should continue to increase until the point where people perceive that it is difficult or impossible to carry out the action that would repair the damage to the environment (Ferguson & Branscombe, 2010). When preventing or repairing damage to the environment is perceived to be very difficult (e.g., buying a hybrid vehicle) or nearly impossible (e.g., eliminating global CO2 emissions), then feelings of ecoguilt will decrease because it is too psychologically stressful to maintain an intense state of emotional arousal for a significant period of time. A moderate level of emotional intensity – that is, enough guilt so that one feels troubled but not overwhelmed – is thought to be optimal for motivating behavior (Brehm, 1999). Thus a promising motivational state could be created by reframing pro-environmental behavior to take the form of somewhat challenging, yet attainable, efforts that contribute to a greater good.

If a person is not sure how much effort it would take to complete a pro-environmental action, then the importance that individual places on the environment should determine the extent to which ecoguilt is experienced. For example, if a person has just moved to a new neighborhood that does not have a recycling program and does not yet know how difficult it will be to find a place to deposit recyclables, the amount of ecoguilt experienced for temporarily being unable to recycle will depend on how much that person cares about the environment. Individuals who do not consider protecting the environment to be an important issue should experience less ecoguilt than individuals who set the environment as a top priority.

Behaviors Related to Ecoguilt. Research typically finds a positive association between ecoguilt and both pro-environmental behavioral intentions (Ferguson & Branscombe, 2010; Grasmick et al., 1991; Harland et al., 2007; Kaiser, 2006; Kaiser et al., 2008; Mallett et al., 2013) and self-reported pro-environmental behaviors (Bamberg & Moser, 2007; Kaiser, 2006; Kaiser & Shimoda, 1999). There is typically a medium to large correlation between pro-environmental behavioral intentions and pro-environmental behavior (Bamberg & Moser, 2007; Hines, Hungerford, & Tomera, 1987). Some studies examine guilt for specific behaviors – for example, driving short distances, unnecessary use of water, and littering – whereas other studies examine guilt for behaviors that are performed by collectives (such as universities, corporations, or nations) and assess an individual's willingness to become involved with pro-environmental groups or to support social policies that benefit the environment (Ferguson & Branscombe, 2010; Harland et al., 2007; Kaiser & Wilson, 2004).

Ecoguilt and Quality of Life. When people consider the impact that climate change may have on the ability of humans to survive and thrive, they may experience guilt, anxiety, or despair (Ferguson & Branscombe, 2010; Fritze, Blashki, Burke, & Wiseman, 2008). Individuals who feel closely connected to the environment are at the greatest risk for experiencing ▶ negative emotions related to their environmental behavior because they value the environment (Clayton & Opotow, 2003).

Yet if individuals are able to successfully engage in pro-environmental behavior, they may experience ▶ positive emotions. For example, if people are able to make pro-environmental changes in their personal lives or become actively involved in an organization that advocates for environmental protection, they may experience an enhanced sense of personal meaning and ▶ satisfaction with life (De Young, 1996; Johnson, Haeuble, & Keinan, 2007). To the extent that these positive outcomes are reinforcing, they may encourage additional pro-environmental behaviors.

Cross-References

- ▶ Anxiety
- ▶ Meaning in Life
- ▶ Negative Affect
- ▶ Positive Affect
- ▶ Proenvironmental Behavior
- ▶ Prosocial Behavior
- ▶ Satisfaction with Life Scale (SWLS), an Overview

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Guttman Scale

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Definition

It represents a scaling model allowing cumulative characteristics to be measured through a group of items, ranking from the "easiest" to the "most difficult."

Scalogram analysis allows ▶ Guttman scale (a *multi-item scale* and representing a cumulative *scaling model*) to be assessed by testing if and how much the distribution of the observed scores on all items departs from the ideal combination (*scalogram*), representing the theoretical model of perfect scalability.

Description

In order to measure complex subjective variables in quality of life research, several items are required (*multi-item scale*), able to discriminate cases on the variable's conceptual continuum. If variables are cumulative in their nature (e.g., capacities, perception of social distance, dispositions, difficulties, and so on), items have to contribute to the description of the measured characteristic in different (cumulative) manners.

Historically, Louis Thurstone (1927, 1959) was the first researcher engaged in the creation of a continuum with an increasing intensity concerning a certain characteristic by using the judgments expressed by a group of "judges" (McIver & Carmines, 1979; Torgerson, 1958) and his approach is often applied in order to obtain "differential scales."

Later on, two different cumulative *scaling models* (Maggino, 2007; Nunnally, 1978) have been conceived and defined. They differ from each other mainly with reference to the approach in defining the measurement error (nonsystematic variation in scores or nonsystematic variance or error variance) and consequently to different definitions concerning the response model (called *trace line*).

The models are:

- *Deterministic model*: According to this approach, the nonsystematic variation is not explicitly definable and is completely attributed to cases' and items' position on the continuum representing the measured characteristic. Consequently, the probability to obtain a certain score for a certain item can be 0 (*beta*) or 1 (*alfa*) at any point of the underlying continuum.
- *Probabilistic model*: According to this model, the random error can be defined as the probability to obtain a certain score. This approach, based upon the *Item Response Theory* related to the *Latent Trait Theory*, ascribes the variation to both cases' (capacity, attitude, opinion, or others) and items' (difficulty or discriminant capacity) characteristics. The obtained score represents a measure of the relationship between each case and each item. The relationship is formally described by the *Item Characteristic Curve* (*ICC*). Unidimensionality and local independence are the basic assumptions. The definition of mathematical-probabilistic models allowed statistical criteria to be defined in order to test goodness of fit (Andrich, 1988; Hambleton, Swaminathan, & Rogers, 1991; Lord, 1952, 1974, 1980, 1984; Ludlow & Haley, 1995; Rasch, 1960; Sijtsma & Molenaar, 2002; Torgerson, 1958).

The approach known as *Guttman scale* represents the most common version of deterministic models and found applications in subjective measurements (Guttman, 1945, 1947a, b, 1950; McIver & Carmines, 1979; Torgerson, 1958).

One of the most known applications of the cumulative model, through a Guttman scale approach, is "perception of social distance." Bogardus (Bogardus, 1958) defined a group of item perfectly fitting scalogram model:

1. *Are you willing to permit immigrants to live in your country?*
2. *Are you willing to permit immigrants to live in your community?*
3. *Are you willing to permit immigrants to live in your neighborhood?*
4. *Are you willing to permit immigrants to live next door to you?*
5. *Would you permit your child to marry an immigrant?*

Agreement with item 4 implies agreement with the preceding ones (1, 2, 3).

The *Guttman scale* is based upon the capacity of the selected items to respect the cumulative-deterministic prerequisite and in particular on the following assumptions:

- *Unidimensionality*: The group of selected items refers to a single conceptual dimension.
- *Homogeneity* of scaling techniques applied to whole group of items.