

INDIVIDUALS' INTEREST IN PREVENTING EVERYDAY ACCIDENTS AND CRISES: A SWEDISH EXPLORATIVE STUDY OF THE IMPORTANCE OF MOTIVATION

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Abstract: *This explorative study presents an empirical examination of the connection between motivation and the measures individuals take to prevent everyday accidents and prepare for crises. Positional factors (age and gender) and situational factors (education, size of locality, and household composition) are included because the literature highlights their importance. The study used data gathered in a 2010/2011 poll of randomly selected Swedish residents aged 16–75 (N = 2000; 44.8% response rate). A factor analysis reduced the theoretical model for situational motivation (Guay, Vallerand, & Blanchard, 2000) from four to two dimensions: motivation and amotivation. Subsequent regression analyses statistically confirmed the connection between motivation or amotivation and the extent to which individuals pursue preventative and preparedness measures, even when accounting for positional and situational factors. These findings underscore the need for continued studies of individuals' incentives to prevent accidents and prepare for crises and for the study of the nuances of (situational) motivation and preventive/preparedness measures.*

Keywords: *situational motivation, prevention, preparedness, accidents, everyday life, Sweden.*

INTRODUCTION

Risks and crises are communicated continually via various channels, even as individuals face different types of risk and crisis in their daily lives. These include the risk of injury from a serious fall, of choking, cutting, poisoning, or electrocuting oneself, and of accidents when out walking or bicycling in traffic. In addition, various crises, such as prolonged power outages, can have considerable spillover effects on individuals.

In Sweden, the incidence of accidental injury in and around the home is 13 per 1,000 population per annum (Räddningsverket [Swedish Rescue Services Agency], 2005). In addition to the annual home-related injuries and deaths, about 25,000 households annually are

affected by power disruptions that last longer than 24 hours. These power disruptions that occur primarily in the winter months can cause significant problems for domestic heating and water supplies and limit access to risk and crisis communications. Indeed, during major weather-related incidents, the number of households affected by long power disruptions can be considerable: For example, a 2007 protracted power outage affected 225,000 customers (Energimarknadsinspektionen [Swedish Energy Markets Inspectorate], 2010).

Many accidents and crises in daily life could be avoided, or at least mitigated, if the individuals themselves took steps to prevent them. Accident prevention and emergency preparedness research often concentrates on precautions taken at the societal level, including measures such as adjusting building codes and regulation of works and repairs (for a review of structural measures and their effects, see DiGuseppi, Jacobs, Phelan, Mickalide, & Ormandy, 2010). To this end, the present study addresses the variations in individuals' motivation to prevent and prepare for accidents and crises in and around the home. For this reason, previous research on societal measures is excluded from the scope of this study, with the focus instead on individuals' motivation for taking preventive and preparedness actions.

MOTIVATION AND EVERYDAY LIFE RISKS

In regard to motivation, a number of terms have proven useful in describing, analyzing, and explaining individuals' accident prevention and preparedness measures. A theoretical typology much used and discussed is Deci and Ryan's (1985) self-determination theory. Deci and Ryan argued that individuals can be prompted to display specific behavior according to various degrees of self-determination, which is described in the frequent pairing of the concepts of intrinsic and extrinsic motivation. Intrinsic motivation describes how individuals choose to act for their own benefit, for example, because the individual feels the outcome would be fun or good. Extrinsic motivation, on the other hand, is used to describe behavior related to various goals that go beyond the activity itself, which are expressed often as a sense that something "must" be done. I argue that both these dimensions are important when looking at the motivation to prevent accidents and prepare for crises. Self-determined motivational types have been used in a variety of theoretical concepts and conceptual refinements. One of these concepts is "situational motivation" (Guay Vallerand, & Blanchard, 2000), describing individuals' motivation to behave in certain ways in the face of specific activities or phenomena, the example here being preventive or preparedness behavior. Situational motivation is thus the focus of the present study.

The concept of situational motivation comprises four distinct types of motivation: intrinsic, identified regulation (extrinsic), external regulation (extrinsic), and amotivation (Guay et al., 2000). *Intrinsic motivation* refers to conditions that increase the interest in doing something for its own sake—it feels inherently interesting or meaningful. Theoretically, the concept of intrinsic motivation was proposed as a critical reaction to the motivational theory advanced by Skinner (1965) that individuals' behavior is motivated by outcomes or rewards; intrinsic motivation refers instead to a willingness to do something where the activity itself becomes the reward (Ryan & Deci, 2000). The concept of intrinsic motivation has been criticized, with some contending that it is not a theory at all, but rather a guideline for behavior (Graham & Weiner, 1996, p. 63), sometimes discussed in terms of a personal propensity that can be elicited

in different ways (but not caused by specific events; Ryan & Deci, 2000). Extrinsic motivation frequently is defined so as to include the impact of the possible outcome of certain behavior, given that “extrinsic motivation is a construct that pertains whenever an activity is done in order to attain some separable outcome” (Ryan & Deci, 2000, p. 60). This is connected to the view that the individual always is struggling forward to grow and enhance the self (see Maslow, 1971). Two self-determined motivational types are held to be subject to extrinsic motivation: *Identified regulation*—extrinsic motivation regulated through identification—applies when behavior is valued and perceived as being chosen by the individual, whereas, *external regulation*—extrinsic motivation that is regulated externally—is related to perceived rewards or the avoidance of negative consequences. Finally, to fully understand the motivational aspects of behavior, it is also important to consider any lack of motivation, hence *amotivation*, referring to a lack of contingency between behavior and (possible) outcomes (e.g., see, “learned helplessness”; Seligman, 1975).

The way in which incentives relate to behavior has been studied extensively, as is the case, for example, with proenvironmental behavior (de Groot & Steg, 2010; Pelletier, Tuson, Green-Demers, Noels, & Beaton, 1998), where the literature shows that the higher the degree of self-determination, the greater the likelihood that individuals will act proenvironmentally (e.g., taking action more frequently, adopting a greater variety of measures, and demonstrating a willingness to undertake more complicated measures; Green-Demers, Pelletier, & Ménard, 1997). As a concept, situational motivation has been studied primarily in the context of people’s daily lives, which means it lends itself well to the present study. Much of the literature, apart from addressing accidents and crises, concerns the motivation to engage in physical exercise and sports (e.g., Blanchard, Mask, Vallerand, de la Sablonnière, & Provencher, 2007; Jaakkola, Liukkonen, Laakso, & Ommundsen, 2008; Standage, Treasure, Duda, & Prusak, 2003) or to earn an education (e.g., Lonsdale, Sabiston, Raedeke, Ha, & Sum, 2009; Parish & Treasure 2003; Prusak, Treasure, Darst, & Pangrazi, 2004, Standage & Treasure, 2002). However, some studies of situational motivation concern everyday risks, such as smoking (e.g., Carton, Jouvent, & Widlöcher, 1994; Zuckerman, Ball, & Black, 1990). The findings of these types of studies suggest that individuals who were more motivated would likely do more to prevent accidents and or to prepare for crises in the home.

Against this backdrop, the current explorative study is focused on how variations in preventive measures and preparedness might be best understood and explained, particularly when it comes to the importance of individuals’ motivation. However, previous research in the field of risk studies has shown that both positional and situational factors are important for the prevention of and preparedness for accidents and crises in and around the home. Regarding risk and safety, a great many studies have shown that positional factors (e.g., age and gender) can explain variations in human behavior. Much has been made of the effect gender has on how people relate to different kinds of risk (Brody, 1984; Davidson & Freudenberg, 1996; Enander, 2005; Gutterling & Wiegman, 1993; Mohai, 1992; Zinn & Pierce, 2002): Consistently, research has shown that women tend to view risk more seriously than men do. Some of the reasons given are that women devote more time to family care or that men understand risks better than women. Yet although the literature indicates that gender has a consistent effect, even when controlled for factors such as educational level and general knowledge (Barke, Jenkins-Smith, & Slovic, 1997; Slovic, 1999, 2000), literature in the Swedish context shows that the significance of gender varies (Olofsson & Öhman, 2006; Olofsson & Rashid, 2011). Age also has been highlighted as a

positional factor (Finucane, 2008). Risks usually are perceived as less serious by young people (e.g., see Enander & Johansson, 2002), but, just as with gender, some studies show that age alone does not have a general effect (Siegrist, Gutscher, & Earle, 2005). In the same vein, situational factors (e.g., education, household composition, size of locality) are crucial in determining how individuals relate to risk. Educational level, in particular, has proven significant (e.g., see Slovic, 2000). Yet even place of residence can be important (see, e.g., Furlong & Cartmel, 1997; Jamieson, 2000; Tolonen, 2005; Wall & Olofsson, 2008) in that the size of people's home communities have been shown to be one explanation for differences in traffic risk and safety behavior (Wall, 2009, 2011), and regarding lifestyle choices, including smoking and drinking alcohol (Wall, 2011). Similarly, the literature shows that having children in the household results in a higher sensitivity to risk (e.g., see Lindell & Perry, 1992). For these reasons, situational factors are included in the present study's statistical analyses. The question is whether the possible importance of motivation in people's willingness to take preventive or preparedness action is retained even when positional and situational factors are included.

METHODS

Participants

This study refers to a random selection of 2,000 Swedish residents, aged 16–75, recruited from all regions of the country, and comprising a representative selection of the population. Of these, 895 answered the questionnaire, giving a response rate of 44.8%.

Measures and Variable Presentation

The statistical analysis is based on data from a Swedish national poll, *Samhälle och risk [Society and Risk] 2011*, conducted by post. The questionnaire revealed various aspects of the respondents' views on risks in society. In the survey, for example, risk perception, risk communication, and worldviews were measured. Questions were asked regarding the individual's incentives and actions to prevent and prepare for accidents and crises in the home (situational motivation). The questionnaire also included an extended section with demographic questions. Most questions were based on previous studies (Dake, 1991; Flynn, Slovic, & Mertz, 1994; Guay et al., 2000; Rippl, 2002; Sjöberg, 2000), supplemented with information from a preliminary study consisting of five focus group interviews (Olofsson & Öhman, 2007). Findings presented in this paper are based on analyses of questions about prevention of accidents and crises and emergency preparedness, situational motivation, and background.

Prevention of Accidents and Crises and Emergency Preparedness in Everyday Life

An index of the scope of the preventive and preparedness measures reported by the respondents is used here as a dependent variable. The following were the items in the index: The respondent wears high-visibility items at night when out walking or cycling, wears a bike helmet if out cycling, has home insurance, has private accident insurance, has a smoke alarm in the home,

has a burglar alarm, has a fire extinguisher, has a basic first-aid qualification, has actively sought information about what to do in an emergency, keeps a battery-powered radio on hand, has a store of canned and dried food in case of emergencies, can operate a fire extinguisher, and is able to administer CPR. Each index item was coded (1 = yes, has taken the preventive measure, 0 = no), giving a range from 0 to 13 with a mean of 7.81, ($SD = 2.11$).

Situational Motivation

In order to measure the motivation and, more specifically the situational motivation, the questionnaire used a situational motivation scale (SIMS), similar to one constructed by Guay et al. (2000). Thus, given the literature on situational motivation, the scale incorporates the four types of situational motivation: intrinsic, identified regulation, external regulation, and amotivation. In order to measure each motivational type, the scale was translated into Swedish and reduced from four to three points, to minimize the length of the survey. Because a SIMS is intended to measure situational motivation, it was linked in the present instance to accidents and crises in the home by the specific wording of the introductory question, “There can be different reasons for preventing accidents and risks in the home. How far are the following statements true of you?” That question was followed by 12 statements, with 3 to measure each type of motivation, such as “It makes me feel good” (intrinsic motivation) or “I suppose I must do it” (external regulation). The statements were listed in random order, and the respondent answered using a 4-point Likert scale, from *strongly agree* (4) to *strongly disagree* (1). For inclusion in the statistical analysis, the answers were coded so that the more the respondent agreed with the statement, the higher the value of his or her answer. All variables in the questionnaire followed this coding logic.

Positional Factors

A variable was included for gender (1 = male, 0 = female). Of the respondents, 45.2% were male. Three age groups were constructed into which the respondents were organized: under 30 (16.6%), 30–65 (65.9%), and over 65 (17.5%).

Situational Factors

A variable was constructed to indicate that the household contained children (1 = has children, 0 = no children). Of the respondents, 71.8% stated that they had children living at home and 28.2% did not. Regarding education, three groups were created to reflect the highest stated educational level, whereby those coded with 1 have finished compulsory school (20.7%), those coded 2 have graduated from upper secondary school (40.0%), and those with 3 have completed university (39.3%). When it came to the size of locality, they were grouped according to population size: 1 for those living in a town with fewer than 25,000 residents (47.9%), 2 for 25,000–200,000 residents (30.0%) and 3 for a population greater than 200,000 (22.1%). The latter category comprises Stockholm, Gothenburg, and Malmö, the only three cities in Sweden with populations greater than 200,000.

Research Design

During the winter of 2010 and spring of 2011, a questionnaire was mailed to the randomly selected recipients. The respondents were asked to answer the questionnaire and return it by post. For those who did not return the survey, the follow-up process involved two written reminders, as well as phone calls to some of the recipients. My colleagues and I, researchers at the Risk and Crisis Research Centre, Mid Sweden University, conducted the data collection.

The questionnaire was written in Swedish. To ensure that nonnative Swedish recipients would understand the questions, the language was clarified, based on comments by informants not confident in Swedish who were consulted during the survey preparation.

Analyses

All questions taken from the SIMS (Guay et al., 2000) were subjected to a factor analysis in order to identify the dimensions that indicate the respondents' motivation to prevent and prepare for accidents and crises in the home. More specifically, a principal component analysis with varimax rotation was made, where missing values were replaced with the mean.

To understand and explain the variations in willingness to take preventive or preparedness actions, a linear multiple regression analysis was used. The prevention index was defined as dependent variable whereas independent variables were motivational types (factor scores from the factor analysis), positional factors (gender and age, as described above), and situational factors (children in the home, education attained, and locality population, as described). Three regression models were made, where the first (Model I) included motivational types as independent variables, the second added positional factors (Model II), and the last added situational factors as well (Model III).

All the statistical analyses were made by the author and were conducted using the statistical software program SPSS, version 19.

RESULTS

Descriptive Analysis

In Table 1, the variables of the study are presented with descriptive statistics. In line with the aim of the study, the dependent variable was a prevention and preparedness index (range 0–13, $M = 7.81$, $SD = 2.11$). The independent variables focused in the article, motivational types, are presented as factors. The first factor was based on Guay et al.'s (2000) motivational types: intrinsic, identified regulation (extrinsic), and external regulation (extrinsic). As a result the factor analysis of the questionnaire items that were based on SIMS (Guay et al., 2000), it became apparent that the three motivation dimensions needed to be combined into one dimension, named motivation. The factor score mean for the motivation dimension (describing a person's relative standing on the factor) was 0.01 ($SD = 0.98$); for the amotivation dimension, the mean was -0.28 ($SD = 0.96$).

Table 1. Presentation of Variables and Descriptive Statistics.

Dependent variables		Mean (SD)	n
Prevention Index	Extent of preventive measures and preparedness (Range 0–13)	7.81 (2.11)	742
Independent variables			
Motivational types			
Motivation	Motivation (factors scores)	0.01 (0.98)	895
Amotivation	Amotivation (factor scores)	-0.28 (0.96)	895
Positional factors			
Gender	Male = 1; Female = 0	0.45 (0.50)	882
Age	Under 30 = 1 ; 30–65 = 2; Over 65 = 3	2.01 (0.58)	851
Situational factors			
Children in the home	Yes = 1; No = 0	0.72 (0.45)	882
Education attained	Compulsory school = 1; Upper secondary school = 2; University = 3	2.19 (0.75)	806
Locality population	<25,000 = 1; 25,000–200,000 = 2; >200,000 = 3	1.74 (0.80)	868

Note. Motivational types are based on factor analysis, which resulted in the three motivational types—*intrinsic*, *identified regulation* (*extrinsic*), and *external regulation* (*extrinsic*)—becoming subsumed under the single dimension of motivational types.

Motivational Factors

The factor analysis (principal component analysis with varimax rotation, missing values replaced with the mean) identified the empirically based dimensions of individual motivation to prevent or prepare for accidents and crises in the home. It also served as a test of whether the theoretical structure assumed to hold well for situational motivation (Guay et al., 2000) was consistent with the empirical findings of the study.

In terms of the theory and the literature that supported the SIMS (Guay et al., 2000), the ideal would have been a four-factor solution: *intrinsic* motivation, *identified regulation*, *external regulation*, and *amotivation*. However, from the factor analysis of all questions with a bearing on motivation (12 items) based on changes in eigenvalues, the empirical material gave a factor solution (Factor Analysis 1) with two factors, as shown in Table 2 (which describes the extracted factors and factor loading for the questions about motivation and preventive measures).

Factor Analysis 1 showed two clear factors, with Factor 1 describing motivation (Cronbach's $\alpha = .878$) and Factor 2 describing amotivation (Cronbach's $\alpha = .666$). Factor 1 comprised statements from the SIMS (Guay et al., 2000) intended to measure *intrinsic*, *identified regulation*, and *external regulation* motivation. Factor 2 thus covered the statements that were intended to measure *amotivation* (Guay et al., 2000). Of significance is that the factor analysis indicated that one item, "I don't have any choice," originally aimed to measure *external regulation* (*extrinsic*), better described *amotivation*. This solution of the factor analysis that most clearly described the empirical material thus showed that the SIMS (Guay et al., 2000) does not fully apply in studying individual motivation to prevent or prepare for accidents and crises. The scale's usefulness was found to be limited to defining motivation and amotivation, whereas the nuances of individual motivation mentioned in the literature on situational motivation was not apparent in the empirical data of the present study.

Table 2. Results of Exploratory Factor Analysis I for Situational Motivation Types.

	Content of Questions	Factor 1	Factor 2	Cronbach's Alpha
<i>Factor 1 Motivation</i>	It makes me feel good. (Intrinsic)	0.826	-0.047	
	I think it's important for me. (Identified regulation)	0.800	-0.146	
	I feel I have to do it. (External regulation)	0.770	0.156	
	I've decided I must do it. (Identified regulation)	0.765	-0.094	
	I'm doing it for my own good. (Identified regulation)	0.733	-0.107	
	It feels good. (Intrinsic)	0.708	-0.125	
	I assume I have to do it. (External regulation)	0.707	0.235	
	It's fun. (Intrinsic)	0.512	0.286	$\alpha = .878$
<i>Factor 2 Amotivation</i>	I don't know. I can't see how I benefit. (Amotivation)	-0.230	0.770	
	I'm sure there are good reasons, but I can't think of any myself. (Amotivation)	-0.329	0.723	
	I do it, but I'm not sure it's worth the bother. (Amotivation)	0.140	0.691	
	I don't have any choice. (External regulation)	0.313	0.593	$\alpha = .666$
	Contribution coefficient (%)	38.2	18.0	

Note. Items ordered in relation to factor scores found in the factor analysis (high to low Factor 1 and Factor 2, respectively). The motivational type aimed to be measured, according to the SIMS (Guay et al., 2000), is notified in parenthesis. Cronbach's Alpha is calculated for each factor.

The Importance of Motivation and Positional and Situational Factors

To study whether motivation or amotivation can explain individuals' preventive and preparedness actions as an indexed whole, a regression analysis was conducted. The importance individuals accorded to the factors for motivation or amotivation (Factor Analysis 1) was obtained as regression coefficients (factor scores) used to determine their motivation in subsequent regressions.

Three regression models were tested (see Table 3): Model I tested the explanatory worth of motivational factors (motivation or amotivation) in individuals' preventive actions and preparedness; Model II tested the effect of motivational factors when positional factors are included; and Model III tested the effect of motivation when both positional and situational factors are included. For all the models, missing cases were deleted listwise. Listwise deletion removes all data for a case that has one or more missing value. A collinearity test showed no multicollinearity in Model I (tolerance = 1.000; *VIF* = 1.000—ideal figures, in other words) and Model II (tolerance = 0.946–0.991; *VIF* = 1.009–1.057). A collinearity test between the input variables in Model III (tolerance = 0.747–0.972; *VIF* = 1.029–1.338) demonstrates a degree of covariance (correlation coefficient > 0.3) between age and the presence of children in the household (-0.457).

The findings show that motivation and amotivation contribute independently and significantly to explain the variations between individuals in the measures they take to prevent and prepare for accidents and crises. The effect of motivation and amotivation remained even

Table 3. Regression Analyses with Preventive Measures as Dependent Variable.

	Model I		Model II		Model III	
Motivational Factors						
Motivation	0.756	(0.072)***	0.753	(0.074)***	0.621	(0.074)***
Amotivation	-0.216	(0.073)**	-0.237	(0.074)***	-0.193	(0.077)*
Positional Factors						
Gender (male)			-0.238	(0.145)	-0.352	(0.148)*
Age			0.286	(0.138)*	0.057	(0.158)
Situational Factors						
Education Attained					0.110	(0.105)
Size of Locality					-0.641	(0.096)***
Children in the home					0.608	(0.196)**
Constant	7.793		7.340		8.301	
<i>n</i>	742		718		638	
R ² (adj.)	0.136***		0.152***		0.214***	

Note. *** $p < .001$; ** $p < .01$; * $p < .05$. Nonstandardized β -coefficients, standard errors in parentheses. Data source: Samhälle och Värderingar, 2011.

when positional factors (Model II) and situational factors (Model III) were included. This demonstrates that motivation and amotivation can make a clear, unique contribution to explaining individuals' interest in preventing or preparing for accidents or emergency conditions in and around the home. All the models were significant ($p < .001$). For motivation and amotivation, the findings were consistent across all three regression models.

For positional factors, the findings are not as clear. Age had a significant effect ($p < .05$) on individuals' preventive actions in Model II, but is not significant when situational factors were added (Model III). The reverse was true of gender, for its effect was slight in Model II and far more evident in Model III ($p < .05$). However, the tendency seems to be for men to implement fewer preventive measures than women do, and older people implement more than do younger people.

The results in terms of the effect of situational factors show that both size of locality and the presence of children in the household had a significant effect (Model III) for preventative or preparedness actions: Living in a smaller community had positive connotations ($p < .001$), and the presence of children had a similarly positive effect ($p < .01$). Level of education, it should be noted, was not found to be of any significance for individuals' preventive actions.

DISCUSSION

The result of the factor analysis gave a two-dimensional factor solution describing motivation/amotivation. This means that the SIMS (Guay et al., 2000) was not confirmed by the analysis in its original form, where motivation is defined into four types, but rather needed to be condensed. Based on this two-dimensional factor solution of SIMS, this explorative study shows

a statistical relationship between motivation or amotivation and the extent to which individuals pursue measures intended to prevent accidents and crises or prepare for emergencies in and around the home. This connection remains even when the data were tested for positional and situational factors. Motivation has a positive effect on individuals' overall preventive and preparedness actions, and amotivation reduces the extent of the same. This means that both motivation-raising measures and measures intended to reduce individuals' amotivation could contribute to increasing the scope of preventive measures that an individual will take.

The results of both the factor analysis and regression analyses are interesting. The fact that the applicability of the scale used to measure motivation (SIMS; Guay et al., 2000) proved to be limited ought to be examined further. The question is whether the scale's limited use and inability to measure fully the different types of motivation stems from its original construction, its translation into Swedish, differences between the Swedish and the original context, or in its use to measure everyday individual motivation. To my knowledge, this is the first time the scale has been used to measure motivation among individuals in Sweden and, moreover, the first time it has been used to measure individuals' motivation to prevent accidents and crises. This warrants closer inspection. However, the dichotomy between motivation and amotivation—the result of the factor analysis—seems to give a robust factor solution that describes the material well. This rough division between motivation and amotivation may have contributed to the unequivocal results in the subsequent regression analyses that were intended to study the effect of motivation on individuals' preventive actions. It is striking that motivation has such a demonstrable effect on individuals' self-reported behavior when it comes to preventive and preparedness measures, even when positional and situational factors are included. This means that positional and situational factors do not change the fact that motivation matters.

In this study, a random selection of people living in Sweden was used, which typically suggests that the results could be generalized to the entire population. However, only 44.8% of the sample population completed the questionnaire. Therefore, one should not conclude that the results are fully generalizable. Taken with the fact that, to my knowledge, these results reflect the first time the SIMS has been translated into Swedish and used in this particularly context, these conditions should be considered when viewing the results of this study.

Given the results of this explorative study, future studies are called for to deepen our understanding of the area. First, the usefulness of SIMS (Guay et al., 2000) should be investigated in a variety of countries and for many types of preventive measures in everyday life. Other tools might better draw out the nuances of individuals' motivation. Second, future studies should concentrate on identifying the full range of such nuances in individuals' preventive actions. In the present paper, preventive and emergency preparedness measures are considered as a single index rather than as the vast array of measures that they truly are. Future studies thus should consider the importance of motivation for specific types of preventive or preparedness measures. For example, it would be valuable to know more about how motivation varies according to the type of preventive action or the type of everyday risk in question. It also would be interesting to see which types of motivation are of particular importance when it comes to explaining specific types of preventive and preparedness measures taken. Future studies thus should proceed with more specific models for both motivation and preventive and preparedness actions if the finer distinctions are to be captured.

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