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Making sense of risk together: a dissertation on the social factors that drive risk talk

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Chapter 3

Preferences for Risk Conversations in Everyday Life: A Conjoint Analysis

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Abstract. Risk talk has recently received increased attention as a predictor of risk perception. If social interactions strongly influence how people think about risks, we first need to know how and why individuals engage in conversations on risk. Many factors may play a role in the decision to engage in a conversation. To untangle precisely which factors influence the decision to enter a risk conversation—and to what extent—we use a pre-registered conjoint survey experiment—suitable for investigating multidimensional preferences—based on seven key attributes of risk-related conversations. The results indicate the relative weight of conversation attributes that make people engage in risk conversations. The attributes that drive risk talk are—in order of importance—the interlocutor’s propensity to exchange information and relieve anxiety, the inter-

locutor’s proficiency on the topic, the closeness of the respondent to the interlocutor and the type of relationship, e.g. whether they are a relative or friend of the respondent. Respondents also preferred female over male conversation partners, with moderate, rather than high, levels of concern. We also found that different groups of respondents have different preferences regarding risk talk. This study increases scientific understanding of how risk perceptions, through risk talk, may be amplified, attenuated, and malleated socially, informing the work of risk communicators.

Keywords: risk talk, risk perception, survey experiment, conjoint.

3.1 Introduction

Risk is a common subject of daily conversations, encompassing everything from global crises like climate change to personal safety concerns such as food safety or injury prevention. Nevertheless, risk communication research has historically paid little attention to risk talk. That is, little is known about *when*, *how*, and *why* people choose to engage in risk talk. This research tackles the latter using original survey experimental data from lay respondents.

Empirical research on the micro-sociological level is important for several reasons. First, we know that risk perception is subject to social amplification and attenuation, but not the micro-level mechanisms through which these aggregate effects happen. Empirically studying interpersonal discussion on risk provides insights into how lay individuals perceive and experience risk, and how this experience is influenced by conversations on a daily basis (Bostrom, 1997; Fischhoff et al., 1978; Slovic et al., 1982). Second, aggregate effects hide a good deal of heterogeneity: a literature review by Perlstein (2024) demonstrated how different studies find positive, negative, or non-existent correlations between risk perception and risk talk. A likely explanation of these heterogeneous effects is that these studies have made certain micro-foundational assumptions, which apply to specific circumstances under investigation, without the potential to generalize more broadly. Our study serves to test these micro-assumptions and explain the variations observed at the aggregate level of analysis.

We bring innovation to the field of risk talk research by using a well-powered and quota-representative conjoint survey experiment design to uncover people’s risk talk preferences. We aim to answer the following questions: *Which preferences for risk talk can be identified among lay respondents? More specifically, which attributes of risk talk most significantly influence individuals’ decisions to participate?* We use the fol-

lowing pre-registered independent attributes of risk conversations: 1) topic, 2) gender of the conversation partner (from here on: interlocutor), 3) relationship with interlocutor, 4) closeness with interlocutor, 5) perceived knowledge of the interlocutor on the topic, 6) perceived concern of the interlocutor, and 7) perceived motivation of the interlocutor. The decision to investigate this wide range of seven attributes—rather than conducting a more narrowly focused analysis with fewer variables—is a deliberate feature of this study. The choice reflects our recognition that the decision to engage in risk talk is inherently complex and shaped by multiple factors. To capture this multidimensionality, we employ a state-of-the-art methodological approach: the conjoint experiment. This design allows us to assess the relative importance of each attribute while enabling simultaneous hypothesis testing. Additionally, conjoint experiments are known to reduce social desirability bias and satisficing behavior, both of which are common limitations in traditional survey methods. For more advantages of conjoint experiments, see Kantorowicz (2022).

We additionally conduct exploratory cross-group analyses. We investigate whether distinct groups of people assign different weights to the attributes driving the decision to engage in a risk talk. We examine how their preferences for risk talk vary based on gender, age, education, risk talk behavior, information seeking behavior, risk perception, and risk knowledge.

Motivations to engage in risk talk stem from both the fields of individual risk management and social conformity. Social Representations Theory (Breakwell, 2010; Höijer, 2011) and Social Contagion Theory (Scherer & Cho, 2003) explain how ideas, including risk perceptions, are constructed, shared, and transformed within communities. The Cognitive Mediation Model (Eveland Jr, 2001; Lee et al., 2016) and the Planned Risk Information Seeking Model (PRISM) (Kahlor, 2010), in turn, focus on how individuals acquire and process risk information through media and interpersonal channels, influencing their risk perceptions. Social Representations Theory and Symbolic Interactionism, for instance, conceptualize risk talk as a process of social norm negotiation (Breakwell, 2010; Myers, 2003), while models such as the Cognitive Mediation Model treat risk talk as an information seeking approach (Eveland Jr, 2001; Huurne & Gutteling, 2008; Lee et al., 2016). The choice of all seven conjoint attributes is informed by existing research on risk talk.

Assessing the relative weight of their preferences for the seven attributes, we find that the drivers of risk talk are—in order of importance—the interlocutor’s propensity to exchange information and relieve anxiety, the interlocutor’s proficiency on the topic, the closeness of the respondent to the interlocutor and the type of relationship, e.g.

whether they are a relative or friend of the respondent. Respondents also preferred female over male conversation partners, with moderate, rather than high, levels of concern. We also found that different groups of respondents have different preferences regarding risk talk. Respondents with higher risk perception were more receptive to cautionary interlocutors, i.e. interlocutors with high levels of concern, who sought to convince them to change behavior. Meanwhile, respondents with lower risk perception were more tolerant of unconcerned interlocutors and less tolerant of prescriptive discourse.

3.2 Theory and Hypotheses

Risk communication research has historically paid little attention to risk talk. The Social Amplification of Risk Framework (SARF) (Kasperson et al., 2003) illustrates this lack of attention: while micro-interactions are mentioned as possible mechanisms, through which social amplification or attenuation happens, empirical examination of the micro-sociological details of people’s interactions remains absent. Moreover, even when empirical research does zoom in on risk talk, it tends to pay limited attention to the agency and experiences of those doing the talking (Perlstein, 2024; Thompson, 2020). That is, risk talk is reduced to the number of times or minutes respondents have talked to others about risk (Dorsey et al., 1999; Lin et al., 2017; Nazione et al., 2021). Studies treat respondents as recipients of processes of social influence rather than as active participants (e.g., Knoll et al., 2017; Lo & Cheung, 2016; Lu, 2021). The theories outlined above emphasize the importance of conversations as mechanisms of social amplification but tell us very little about how and why people themselves initiate and experience conversations on risk. This article, then, aims to take a first stab at this question by investigating the drivers of risk talk between laypeople.

Studying people’s preferences when choosing between different conversations can provide insights into the dynamics of social risk transformation. Recent literature has made great strides in our understanding of interpersonal conversational dynamics, in terms of, among other things, motivations (Sun & Slepian, 2020; Yeomans et al., 2022), contents (Solomon et al., 2025), dynamics (Mazzuca et al., 2025), and consequences of conversations. While these findings are indeed very insightful in terms of everyday communication, it would be overreaching to apply them directly to risk talk due to the specific nature of the topic of risk. Risk being particularly conflict-prone (Myers, 2003), uncertain (Alaszewski & Coxon, 2008) and prone to various biases (Schneider et al., 2017; Slovic et al., 1982), risk talk conversely demands that at least initial in-

vestigations be unbiased. Additionally, while our approach targets the interpersonal level, we ultimately seek to understand the co-construction of risk attitudes at a larger societal level as well as how risk moves through systems of social interaction. For instance, when do people introduce risk into conversations themselves, at which times are they more likely to lean into the topic, and at which times do they try to steer the conversation in a different direction? Here, we take an important first step toward uncovering what drives people’s decisions when engaging in risk discussions and identifying the most prevalent factors.

Entering a risk talk is a complex decision shaped by a variety of underlying drivers. In the subsequent sections, we detail the key attributes that, according to theory influence laypeople in deciding whether to engage in a risk talk, in order to subsequently test which attributes matter most and why.

3.2.1 Perceived Knowledge of the Interlocutor

According to models such as the Cognitive Mediation Model, the Planned Risk Information Seeking Model (PRISM), and the Health Belief Model (Champion, 2008; Dorsey et al., 1999; Eveland Jr, 2001; Kahlor, 2010; Lee et al., 2016), risk talk occurs mainly as a response to perceived information insufficiency: individuals become unsure about the seriousness of a risk or how to mitigate that risk, prompting them to seek out more information through media channels and interpersonal conversations (Dong & Yang, 2023; Lee et al., 2013; Timmons et al., 2024). Additionally, research on advice-seeking has shown that people prefer advice that is informational (Dalal & Bonaccio, 2010), indicating that people often engage in advice-seeking conversations with the goal of obtaining information. Finally, research has shown that people prioritize perceived quality of information (i.e. the credibility of the person) when choosing an interlocutor (Hertzum, 2014; Xu et al., 2010). We thus expect respondents to prefer a better-informed interlocutor when talking about risk and propose the following hypothesis:

H1: People prefer to have risk conversations with interlocutors, whom they perceive to be well-informed.

3.2.2 Relationship

Risk talk, as conceptualized by Social Representations Theory and Symbolic Interactionism, is a process of social negotiation and identity affirmation (Breakwell, 2010;

Majumdar & Tewatia, 2024; Myers, 2003, 2007). The goal of this process is to agree on what reasonable behavior in the face of a certain risk looks like. Nevertheless, risk talk often involves high-stakes discussions about safety and behavior, which may lead to more emotionally charged conflicts among interdependent individuals, making closeness less desirable (Berenguer-Soler et al., 2023; Roloff & Chiles, 2011). Further, the risk of losing face during risk talk may be less pronounced when talking to someone, whom one can dismiss as “outgroup” (Locher & Bolander, 2017; Myers, 2003). As such, the assumption that people prefer conversations with people, with whom they are more intimate, is less straightforward in the case of risk talk and should therefore be tested. We align ourselves with Social Representations Theory and Symbolic Interactionism and propose that:

H2: People prefer to have risk conversations with interlocutors, with whom they are closer.

In addition to closeness, the type of relationship may play a different role in the case of risk talk than with other conversational topics. While higher levels of interdependence—relatives being more interdependent than friends, colleagues, or fellow students—may lead to increased frequency of conversation, such interdependency may also lead to more intense disagreements. Furthermore, certain contexts may be more conducive to certain topics, and it may, for instance, be more natural to talk about one’s love life to a friend than to a relative, or about workplace hazards to a colleague rather than a friend. We therefore test the following hypothesis related to the respondent-interlocutor relationship in risk talk:

H3: People prefer to have risk conversations with relatives and friends over colleagues.

3.2.3 Perceived Concern of the Interlocutor

Research often highlights the importance of conversation for emotional regulation and support (Lepore et al., 2000; Nitschke et al., 2021). However, people will generally avoid effort, at least when the reward is low, often referred to as “the law of least mental effort” (Inzlicht et al., 2018; Kool & Botvinick, 2018; Kool et al., 2010). It takes mental effort to face the concern or anxiety of another person. As such, we expect that people, even when recognizing the importance of conversation for relieving the risk-related anxiety of another, will nevertheless prefer not to shoulder the burden of emotional labor. Accordingly, we propose the following hypothesis:

H4: People prefer to have risk conversations with less concerned interlocutors.

3.2.4 Perceived Motivation of the Interlocutor

Research on interpersonal risk communication generally sees such communication as motivated by either information seeking needs or social negotiation of norms and attitudes (Breakwell, 2010; Eveland Jr, 2001; Perlstein, 2024). Literature at the periphery of the field of risk perception also indicates, however, that people may also engage in risk talk for the purposes of emotional support (Burlison & Goldsmith, 1996; Scott et al., 2011; Zech & Rimé, 2005; Zhang, L. & Yang, X., 2021). Specifically, advice-seeking literature has shown that advice-seeking, even when informational on the surface, may often be about pursuing emotional and social goals (Goldsmith & Fitch, 1997).

We propose that respondents prefer conversations when they do not result in emotional distress. Symbolic interactionism highlights how social negotiations on risk perception can function as a threat to identity. If an individual's alignment with their social group in terms of their perceptions of reality is put into question, then the social identity of the individual is threatened. This may lead respondents to avoid conversations that reveal discrepancies between their perceptions and those of their social group (see Myers, 2003). Further, we propose that respondents prefer conversations that do not require substantial amounts of effort, as per the aforementioned law of least mental effort. Consequently, we expect respondents to prefer information exchange above all else because this motivation does not presuppose any discrepancies between their perceptions and those of their social group, and it does not involve emotional labor. We anticipate the second-most preferred interlocutor motivation to be anxiety relief. Even if this motivation involves emotional labor, it does not involve any perceived imposition of group norms and does not require them to change their behavior. We thus expect interlocutor motivations involving an attempt to instigate a change in precautionary behavior to be the least desirable, as these motivations both pose a threat to the respondent's group identity and potentially require the respondent to change their behavior. Based on these deliberations, we propose the following hypotheses:

H5a: People prefer to have risk conversations with interlocutors who want to exchange information over other interlocutor motivations.

H5b: People prefer to have risk conversations with interlocutors who

want relief for their anxiety over interlocutors who want them to take more or fewer precautions.

H5c: People prefer to have risk conversations with interlocutors who want them to take fewer, rather than more, precautions.

3.2.5 Gender

Existing research shows that same- and mixed-sex conversations exhibit differences in both topic matter and conversational style in general (Merrill et al., 2015; Newman et al., 2008; Turner et al., 1995). Specifically, women talk more in-depth about risk and with greater impact on individual-level risk perception (Keenan, 2017; Keenan & Hanson, 2013). The findings by Newman et al. (2008) suggest that women have communication styles more suitable for the psychologically charged aspects of risk talk. By contrast, both Merrill, Gallo, and Fivush (2015) and Newman et al. (2008) found a preference in men to talk more about impersonal topics and general knowledge, which may be more conducive to conversations about the more (perceived) technical aspects of risk such as probabilities and appropriate behaviors. This would imply that conversations with men involve less mental effort. As such, we do not have a single directional expectation, but instead propose the following two competing hypotheses:

H6a: People prefer to have risk conversations with women over men.

H6b: People prefer to have risk conversations with men over women.

3.2.6 Topic

Risk topic was included as an attribute for two reasons. First, by having a specific topic, the conjoint profiles are less abstract, easier for respondents to relate to, and provide greater control of what respondents envision when choosing a profile (given the timing of the data collection, it is likely that without a topic prompt respondents might otherwise default to thinking about COVID-19, which would hurt external validity). Second, we wanted the results of this study to apply to risk talk overall and not to risk talk on a specific topic only. Previous research has indicated that the correlation between risk perception and risk talk can be quite heterogeneous, depending on the risk topic (Perlstein, 2024). As such, we aimed to capture the breadth of risk talk by including 1) a nature-induced disaster risk (flood), 2) an infectious disease risk, 3) a chemical risk (pesticides), and 4) a lifestyle-related risk. We do not have any

hypotheses regarding the risk topic in question but rather include this variable in an exploratory fashion.

Importantly, in order to not only test these (pre-registered) hypotheses but to investigate which attributes most strongly drive engagement in risk talk we use a state-of-the-art methodology for capturing preferences in a multidimensional choice context. This methodology, a conjoint experiment design will be explained in the following section.

3.3 Research Design

3.3.1 *Conjoint Experiment Design*

Data for this study were collected through a paired-profile conjoint survey experiment. Respondents received the following instruction prior to the survey experiment: “In this part of the survey, you will receive eight pairs of conversations with various characteristics. Your task is to choose whom you would rather talk to.” Respondents were then given eight tasks, each with two profiles of hypothetical risk conversations, and asked to choose between them (forced-choice). For each pair of conversations, we asked “In which conversation would you rather participate?” Each profile contained a set of seven attributes, the levels (i.e. attribute values) of which were randomized. The order of the attributes was randomized across respondents but kept constant for each respondent to limit fatigue, a standard practice in conjoint experiment design. The attributes and levels of this study are presented in Table 3.1. Non-sensical profiles were excluded from the experiment (see the Chapter 3 Appendices for details). An example of the display of the profiles (in English) is found in Table 3.2 (for the original Dutch presentation see the Chapter 3 Appendices).

#	Attribute name	Level
1	Perceived knowledge of the interlocutor	Very knowledgeable Fairly knowledgeable Somewhat knowledgeable <i>Not knowledgeable*</i>
2	Closeness with respondent	Close Somewhat close <i>Not close*</i>
3	Relation with respondent	Friend Relative <i>Colleague*</i>
4	Perceived concern of the interlocutor	Very concerned Fairly concerned Somewhat concerned <i>Not concerned*</i>
5	Perceived motivation of the interlocutor	To exchange information on the risk with the respondent To convince the respondent to take fewer precautions To feel less anxious <i>To convince the respondent to take more precautions*</i>
6	Gender	Female <i>Male*</i>
7	Topic	Lifestyle diseases Infectious diseases Pesticides <i>Floods*</i>

* denotes a reference category.

Table 3.1: Conjoint analysis attributes and levels.

	Conversation 1	Conversation 2
Apparent motivation of the person	To convince you to take more precautions	To exchange information on the risk with you
Apparent knowledgeability of the person	Very well-informed	Very well-informed
Apparent concern of the person	Very concerned	Fairly concerned
Topic	Floods	Floods
Closeness with you	Very close	Not close
Relationship to you	Relative	Colleague/fellow student
Gender of the person	Female	Female

Table 3.2: Example of a conjoint task

3.3.2 *Covariates*

The survey included a series of pre-treatment questions that were used in the exploratory subgroup analysis using the following covariates: gender, age, education, risk talk behavior, information seeking behavior, risk perception, and risk knowledge. We intentionally use a rather parsimonious binary coding for all covariates to enable the detection of small to moderate differences across sufficiently large groups (see Section 3.3.3 for more on the power analysis). For the cross-group comparison of gender only, non-binary respondents (N=4) were excluded to allow for a binary variable consisting of male and female respondents. To investigate the effects of age, we compared respondents younger than the median age of the sample, 55, and respondents aged 55 and older. For education, we divided respondents into two groups: those with, and those without, a university education (bachelor’s, master’s, or doctoral degree).

To capture risk talk behavior, we asked the following question: “Sometimes we talk with our friends, family, or colleagues about risks and threats like illness, natural disasters, or manmade threats (nuclear energy, risks associated with driving, etc.). How often do you have conversations about such dangers and threats with friends, family, or colleagues?” Respondents were asked to answer on the following scale: (Almost) daily – More than once per week – Once per week or less often – Once per month or less often – (Almost) never. For the subgroup analysis, we divided respondents into two groups: those who indicated engaging in risk talk more than once per week, and those who indicated engaging in risk talk once per week or less.

To capture information seeking we asked the following question: “If you’re planning to participate in a new activity, for instance a new hobby or a trip to an unfamiliar location, do you then seek out information about possible risks?” Respondents were asked to answer on the following scale: (Almost) always – Usually – About half of the time – Once in a while – (Almost) never. For the subgroup analysis, we divided respondents into two groups: those who indicated seeking information on risk before engaging in a new activity most of the time or always, and those who indicated doing this half of the time or less often.

Risk perception was measured using two items often used in risk perception research: perceived risk probability and perceived risk severity. For risk probability, we asked: “Within the next 10 years, how likely do you think it is that you will [be exposed to the hazard in question]”. Responses were registered on a 5-point Likert scale ranging from very likely to very unlikely. For risk severity, we asked: “If you were to be exposed to [the hazard in question] within the next 10 years, how severe do you think the impact would be?”. Responses were registered on a 5-point Likert scale ranging from very severe to not at all severe. Subsequently, risk perception was calculated by multiplying respondents’ risk probability perception with their perceived risk severity perception. Additionally, a compound measure of risk perception, consisting of the mean of the four individual risk perception measures, was calculated, which we named *general risk perception*. A respondent’s risk perception was classified as high when the score was 6 or higher (equating when the respondent rated either the probability or the severity as high and the other variable as medium).

Lastly, to capture risk knowledge we asked the following question: “How much do you know about the risks of the following topics as well as how you can avoid them?” Responses were registered on a 5-point Likert scale from very knowledgeable to not knowledgeable at all. We chose a knowledge self-assessment over a more objective test because it is more important to the respondents’ interlocutor preferences whether they perceive themselves as knowledgeable than whether this is objectively the case. In addition to topic-specific risk knowledge scores, a compound measure was calculated by taking the average of all four scores. We named this measure *general risk knowledge*. We divided respondents into two groups: those who self-assessed as either fairly or very well-informed and those who self-assessed as somewhat, not very, or not at all informed.

3.3.3 *Data and Estimation Strategy*

Respondents were recruited through the survey company Dynata. The sample targeted the adult population in the Netherlands, including only Dutch residents aged 18 or older. The Netherlands was chosen due to its relatively homogenous population (CBS, n.d.) and geography (CountryReports, n.d.). This homogeneity mitigates regional and cultural variations in risk exposure and risk perception. The sample was quota-representative in terms of age and gender (interlocking) and education (non-interlocking) with the educational split low (34.3%)¹, middle (42.1%)², and high (23.6%)³. Ethical approval for this study was granted by the university of the researchers.

The desired sample size for the conjoint analysis was set at $N = 1089$ based on a power analysis, performed for a set of standard parameters: $(1 - \beta) = .8$ (power) and $\alpha = .05$ (statistical significance). The minimum detectable effect in the form of Average Marginal Component Effect (AMCE) was set to .03, while all respondents were subject to eight conjoint tasks choosing between two competing profiles of risk talks.

We follow a standard approach for conjoint experiment data devised by Hainmueller, Hopkins, and Yamamoto (2014) in the estimation of AMCEs (main coefficient of interest) and Leeper, Hobolt, and Tilley (Leeper et al., 2020) when estimating subgroup differences. For the latter, we employ the marginal means (MMs) and differences in MMs (DMMs). Both AMCEs and MMs were estimated by employing an ordinary least squares (OLS) model with standard errors clustered at the level of respondents. We tested the assumptions of conjoint analysis including nested comparison tests of left-right diagnostics and carryover effect and found no violations. The assumption tests may be found in the Chapter 3 Appendices.

3.4 Results

3.4.1 *Sample Description*

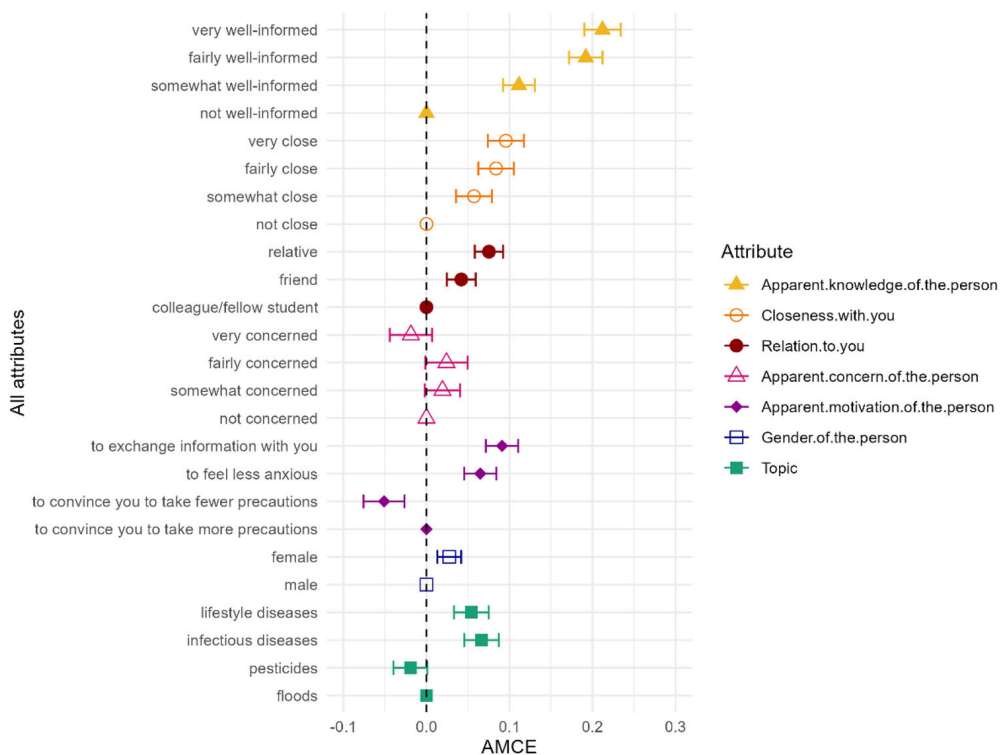
The sample consists of 1201 respondents⁴ with an average age of 52.5 years. The majority of respondents (52.3%) identify as female and some 19% completed a university-level education (bachelor's, master's, or doctoral degree).

Respondents indicate a high degree of risk talk. 49.8% of respondents report talking about risk more than once per week, of which 21.4% report discussing risk on a daily basis. Meanwhile, information-seeking behaviors vary widely with respondents falling

into one of two groups: 42.9% of respondents report mostly or almost always engaging in information seeking before partaking in a new activity, while 46.6% do so only once in a while or less often. For a more detailed account of descriptive statistics, see the Chapter 3 Appendices.

3.4.2 Conjoint Analysis: Main Results

Figure 3.1 present the main conjoint results. Tables with all exact values (Tables SM12–SM27) may be found in the Chapter 3 Appendices.



Note: Figure 1 shows the average marginal component effects (AMCE) from the conjoint analysis with each attribute in color-coding (see legend to the right). Each horizontal line represents a level within an attribute (listed on the left) with the graphical point indicating the estimated effect on the likelihood change of the profile being chosen and the line indicating the 95% confidence interval. Levels that sit directly on the line intersecting at 0.0 are reference categories, meaning all other levels are interpreted in relation to them. The further a graphical point is from the 0.0 line, the stronger the preference (positive or negative) for that level.

Figure 3.1: Conjoint analysis main results.

Well-informed interlocutors emerged as the most important attribute driving the

decision to engage in a risk talk, with effect sizes increasing with interlocutor knowledge: ‘somewhat well-informed’ (AMCE = 0.11, $p < 0.001$), ‘fairly well-informed’ (AMCE = 0.19, $p < 0.001$), and ‘very well-informed’ (AMCE = 0.21, $p < 0.001$), with ‘not well-informed’ as the reference category. These findings provide strong support for H1.

Among respondents’ most prevalent attributes was also a preference for closer interlocutors, with effect sizes increasing as the level of closeness increases: ‘somewhat close’ (AMCE = 0.06, $p < 0.001$), ‘fairly close’ (AMCE = 0.08, $p < 0.001$), and ‘very close’ (AMCE = 0.10, $p < 0.001$), with ‘not close’ as the reference category. This is in line with H2.

Respondents also exhibit a weaker, though highly significant, preference for speaking with friends (AMCE = 0.04, $p < 0.001$), and a moderate preference for speaking with relatives (AMCE = 0.08, $p < 0.001$), as opposed to colleagues (reference category). Additionally, respondents prefer relatives over friends (AMCE = 0.03, $p < 0.001$, using friends as the reference category). Therefore, H3 is also supported by the data. While still prevalent, this attribute is somewhat less important than interlocutor knowledge.

We find a borderline significant preference for interlocutors who are somewhat concerned (AMCE = 0.02, $p = 0.08$) and fairly concerned (AMCE = 0.02, $p = 0.06$), compared to those who are not concerned, but not for very concerned interlocutors (AMCE = -0.02 , $p = 0.15$). Thus, preferences for concern in interlocutors seem to follow a bell curve, where moderate concern is most preferred and either strong or no concern is least preferred. As such, H4 is not supported.

Respondents exhibit a strong preference for interlocutors whose primary motivation is to exchange information (AMCE = 0.09, $p < 0.001$), rather than to convince the respondent to take more precautions (reference category). The interlocutor’s motive is therefore one of the most important factors influencing people’s decision to engage in a risk discussion. Additionally, a moderate preference is observed for interlocutors seeking to alleviate anxiety (AMCE = 0.06, $p < 0.001$). These findings support H5a and H5b. However, contrary to H5c, respondents are significantly averse to interlocutors trying to convince them to take fewer precautions (AMCE = -0.05 , $p < 0.001$).

The last testable hypothesis considers the gender of the interlocutor. In line with H6a and contrary to H6b, the results show a small, but statistically significant preference for female interlocutors (AMCE = 0.03, $p < 0.001$). The interlocutor’s gender and level of concern are thus less important factors in people’s decision to engage in a risk conversation.

Finally, respondents prefer talking about lifestyle diseases (AMCE = 0.05, $p < 0.001$) and infectious diseases (AMCE = 0.07, $p < 0.001$) compared to the reference category of floods. There was no statistically significant difference between floods and pesticides (AMCE = -0.02, $p = 0.065$). Overall, the conversation topic can be considered moderately important in influencing respondents' decision to engage in a risk talk. Table 3.3 provides an overview of evidence for all main (pre-registered) hypotheses.

#	Hypothesis	Support	Attribute importance
1	People prefer to have risk conversations with interlocutors, whom they perceive to be well-informed.	Strong support	High
2	People prefer to have risk conversations with interlocutors, with whom they are closer.	Strong support	Moderate
3	People prefer to have risk conversations with interlocutors, with relatives and friends over colleagues.	Support	Moderate
4	People prefer to have risk conversations with less concerned interlocutors.	No support	—
5a	Closeness with you People prefer to have risk conversations with interlocutors,with interlocutors who want to exchange information over other interlocutor motivations.	Support	Moderate
5b	People prefer to have risk conversations with interlocutors who want them to relieve their anxiety over interlocutors who want them to take more or fewer precautions.	Support	Moderate
5c	People prefer to have risk conversations with interlocutors who want them to take fewer, rather than more, precautions..	No support	—
6a	People prefer to have risk conversations with women over men.	Weak support	Low
6b	People prefer to have risk conversations with men over women.	No support	—

Table 3.3: Overview of the answers to the hypotheses.

3.4.3 *Exploratory Subgroup Comparison*

We furthermore conducted cross-group exploratory analysis to examine how demographic and behavioral characteristics moderate preferences for risk talk. We highlight the key findings here that either provide more nuance to the main results or spark future research on micro-foundations of risk talk. Additional findings may be found in the Chapter 3 Appendices.

Gender, Age, and Education Background

People often prefer spending time with people of their own gender (Bukowski & DeLay, 2020; Mehta & Strough, 2009), whether due to expectations of shared experience (Martin et al., 2011), gender norms (Kesebir et al., 2020), or gendered communication styles (Leaper et al., 1995). For risk talk, we found no statistically significant preferences for talking to one's own nor opposite gender, however. Newman et al. (2008) suggest that women may prefer interlocutors who seek anxiety relief, while men are likely to be more amenable to interlocutors seeking to exchange information. Contrary to this, the analysis showed that women have both a slightly stronger preference for interlocutors with the motivations to exchange information (DMM = 0.02, $p = 0.04$) and to relieve anxiety (DMM = 0.03, $p = 0.02$) compared to their male counterparts. Female respondents are also moderately more averse to interlocutors, wanting to convince them to take fewer precautions (DMM = -0.07 , $p < 0.001$). Finally, female respondents have a slightly stronger preference for risk conversations on lifestyle diseases (DMM = 0.03, $p = 0.01$) and a slightly weaker preference compared to male respondents to conversations on floods (DMM = -0.03 , $p = 0.02$).

As to age, we did not find older respondents to have a stronger preference for talking about infectious diseases compared to younger respondents (DMM = 0.02, $p = 0.10$). Older respondents have a slightly weaker preference compared to younger respondents to talking about floods (DMM = -0.03 , $p = 0.04$), however. Additionally, younger respondents had a slightly stronger preference for talking to people with whom they are very close (DMM = -0.03 , $p = 0.02$) compared to older respondents.

Research suggests that respondents' preferences may vary depending on their educational background since people with a university education are more likely to use a variety of sources, while people without a university education rely more on oral sources such as family and friends (Cotten & Gupta, 2004; Dunwoody & Griffin, 2013; Feinberg et al., 2016; Smith et al., 2009). University-educated respondents had a stronger preference for interlocutors wanting to engage in information exchange (DMM = 0.04,

$p = 0.003$), but non-university-educated respondents did not have a stronger preference for talking to friends (DMM = -0.02 , $p = 0.28$) or relatives (DMM = 0.00 , $p = 0.69$) rather than colleagues or peers. Respondents with a university education were less averse to talking to colleagues or peers, however.

Self-Reported Information Seeking Behavior

We anticipated frequent information seeking to prompt stronger feelings of information insufficiency, leading to a preference for both information exchange and having knowledgeable conversational partners. We did not find respondents with high information seeking behavior to have stronger preferences for interlocutor knowledgeability (DMM(highly well-informed) = 0.00 , $p = 0.93$) or the motivation to exchange information (DMM = 0.01 , $p = 0.31$) than respondents with low information seeking behavior.

Risk Perception and Risk Knowledge

People with a higher general risk perception have a stronger preference for very concerned (DMM = 0.04 , $p = 0.004$) and fairly well-informed interlocutors (DMM = 0.03 , $p = 0.02$) as well as for interlocutors wanting to convince them to take more precautions (DMM = 0.05 , $p = 0.001$). Topic-specific risk perception for infectious diseases, and lifestyle disease positively correlated with a stronger preference for interlocutors who wanted to convince them to take more precautions (infectious disease: DMM = 0.03 , $p = 0.03$; lifestyle disease: DMM = 0.03 , $p = 0.02$). We also found that people with higher risk perception of a given topic have a stronger preference for that topic, for flood risk perception (DMM = 0.05 , $p = 0.001$), pesticide risk perception (DMM = 0.04 , $p = 0.004$), and infectious disease risk perception (DMM = 0.03 , $p = 0.01$).

We conjectured that people who see themselves as knowledgeable on risk generally have a stronger preference for both interlocutors seeking to exchange information and more knowledgeable partners. Nevertheless, we found no differences between the high and low risk knowledge groups for interlocutor knowledgeability (DMM(somewhat well-informed) = 0.02 , $p = 0.32$; DMM(fairly well-informed) = -0.01 , $p = 0.64$; DMM(very well-informed) = -0.02 , $p = 0.14$) and interlocutors seeking to exchange information (DMM = 0.00 , $p = 0.95$). We also explored whether people who see themselves as knowledgeable on a specific risk topic have a stronger interest in discussing that topic. We found this to be the case for respondents with high flood (DMM = 0.03 , $p = 0.05$), pesticide (DMM = 0.04 , $p = 0.02$), and lifestyle disease knowledge (DMM = 0.04 , $p = 0.006$), respectively.

3.5 Conclusions and Outlook

This study aimed to provide insights into people’s relative preferences for risk talk, using a novel conjoint analysis design suitable for examining decision-making processes in multidimensional choice contexts. With the chosen design, we not only test whether various factors influence the choice to engage in a specific risk conversation but establish a relative ranking of these factors in terms of their importance in driving that decision.

We found that, above all, individuals seek a well-informed interlocutor when they decide to engage in risk conversations. Furthermore, the ideal interlocutor not only has proficiency on the topic but has a clear propensity to exchange information and relieve anxiety, and the relationship is social—preferably a family member—rather than professional. The interlocutor exhibits a moderate level of concern, is closely related, and is female. Conversely, an undesirable interlocutor is perceived as uninformed, overly concerned, and trying to convince the respondent to take more precautions, or, by contrast, unconcerned and wanting them to take fewer precautions, and is someone more distant, such as a colleague or fellow student. The most important takeaway is that these findings emphasize the role of risk talk as a means for information exchange rather than persuasion, while people primarily value expertise, trust, and nuanced perspectives in their risk communication partners.

These findings are important for risk communication to members of communities that may be difficult to reach through the so-called amplification stations (authorities, news media, opinion leaders, voluntary organizations) that constitute the Social Amplification of Risk Framework (Kasperson et al., 2003). If individuals are beyond reach of such stations or channels, their risk perception (and behavior) depends to a large extent on risk conversations with people in their environment. For instance, health institutes who wished to inform vulnerable subpopulations on their need to vaccinate against the risk of contracting COVID-19 had to develop outreach policies that saw teams sent into specific neighborhoods to engage in conversation with at-risk individuals (e.g. people suffering from asthma, overweight, or diabetes) (Zolezzi et al., 2021). For risk communication professionals, it is imperative to know what qualifications people seek in their conversation partners when deciding whether to engage in a discussion on risk.

In an everyday context, the strong preference for well-informed interlocutors in this experiment does not necessarily confirm that people rely on cues indicating expertise when choosing conversational partners: this preference may be subject to social de-

sirability bias, and people may also have varying proficiencies in terms of identifying knowledgeable interlocutors. Although conjoint experiments are known for reducing social desirability bias (Horiuchi et al., 2022), future research could explore this further by examining actual conversational choices in more naturalistic settings.

The strong preference of the respondents for relatives over friends may come down to interdependency. Relatives, especially when living together, are more interdependent and thus may be seen as more relevant for risk talk, especially when risk talk pertains to decisions about home safety measures or health behaviors that affect all household members. Future research should investigate whether interdependence leads to higher risk talk frequencies.

The preference for interlocutors who exhibit a moderate level of concern could be because moderate concern represents the least amount of mental labor: overly concerned interlocutors may require calming, or their pleas for additional precautionary behavior may need rejecting, while unconcerned interlocutors may be equally labor-intensive, and only worthwhile when risk behavior is interdependent. At this point, however, this interpretation is largely conjecture and should be further investigated by future research.

The finding that individuals with higher general risk perception preferred interlocutors who were very concerned and who encouraged them to take more precautions suggests that high-risk perception individuals are more receptive to discussions that validate their concerns and support precautionary behaviors. This importantly highlights a self-reinforcing cycle where high-risk perception leads to engagement with similarly concerned individuals, potentially further elevating their risk perception (Binder et al., 2011; Paton et al., 2008).

The findings on gender may be subject to several effects. For instance, it is possible that the preference for female interlocutors is partially a product of social desirability bias, although the direction remains unclear. That is, respondents may have consciously disregarded the gender attribute, meaning that the preference found may be stronger in reality, or they may have consciously chosen female profiles more frequently in order to signal non-sexist attitudes, artificially inflating the preference for female interlocutors. Further, the stronger preferences of female respondents for certain interlocutor motivations may stem from gendered communication dynamics: men tend to dominate mixed conversations (Karpowitz et al., 2012; Octigan & Niederman, 1979), while women experience more frequent interruptions (Anderson & Leaper, 1998; Hancock & Rubin, 2015; Miller & Sutherland, 2023). In a nutshell, when expecting the other to dominate the conversation due to gendered norms, it becomes all the more im-

portant what motivates one's conversational partner. Observational and experimental studies conducted in naturalistic settings are needed to assess the role of gender in risk conversation in a more nuanced manner.

Finally, as this study was conducted in the Netherlands on a quota-representative sample, we further recommend that the study be replicated in different cultural contexts and on more representative samples. By relying on internet panelists only, people with low digital literacy are excluded, albeit unintentionally. It is a reasonable assumption that this group relies more heavily on interpersonal channels in a risk talk context and has different preferences in this regard. This is particularly likely if interpersonal channels are their primary, or even sole, information channel (e.g. because they do not trust established media).

Besides these clear extensions of our study, we provided an innovative approach to the study of risk talk. This article pioneered the application of conjoint analysis to study risk talk preferences, providing a basis for future studies (Perlstein, 2024) (Perlstein Citation2024). The forced-choice paired-profile conjoint setup used in this article does not have a real-world decision-making analogue. That is, in reality, people are generally neither given a clear choice to opt in or out of a conversation, nor do they have a clear choice between two competing conversations. A natural extension is thus to employ a single-profile conjoint analysis and more qualitative approaches, e.g. participant observation.

Generally, the findings of this study should be seen less as a reflection of real-life risk talk practice, and more as preferences, which may instead shape conversational dynamics, only becoming visible at an aggregate level. For instance, we may expect that risk information appears more frequently in conversation, and is therefore malleated at a more rapid rate, when people engage in risk talk for the purposes of information exchange rather than when other people are expected to attempt to impose behavioral norms on each other. Furthermore, risk information may travel less rapidly when people become polarized and fall into camps that are perceived as either alarmist or uncaring by the opposing camp. Simulation studies and other quantitative approaches can be utilized to further test these notions.

While our study may not replicate real-world conversational behavior, it does provide findings relevant to risk communication practice. By knowing what people prefer in a risk talk context, public health authorities may more efficiently recruit and train risk communicators for community outreach programs. While additional studies should confirm whether the findings of this study also apply in a setting typical of community outreach initiatives, they suggest that such initiatives may be more suc-

cessful if emphasis is put on information exchange rather than imposing behavioral change and if risk communicators avoid coming across as alarmist but also take the worries of already concerned individuals seriously.

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Data Availability Statement

The data underlying this article are available at <https://doi.org/10.7910/DVN/BU8VHO>.

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Notes

¹Equivalent to no education, basic schooling (basisonderwijs), VMBO, MAVO or LBO.

²Equivalent to HAVO, VWO or MBO.

³Equivalent to bachelor's degrees, master's degrees, or doctoral degrees (HBO or WO).

⁴It is to note that 1774 responses were collected in total. Of these, 45 respondents did not consent to the conditions of the data collection, and 528 responses were disqualified on account of speeding.

