U.S. Midwest Farmers' Perspectives about the Trade Dispute with China: Concerns, Claims, Solutions, and Information Needs

Shuyang Qu[a*], Lulu Rodriguez[b], Guang Han[c], Wendong Zhang[d], Minghao Li[e], and Erin Cork[f]

[a]Department of Agricultural Education and Studies, Iowa State University, Ames, IA, USA; [b]Seed Science Center, Iowa State University, Ames, IA, USA; [c]Department of Agricultural Education and Studies, Iowa State University, Ames, IA, USA; [d]Department of Economics and Center for Agricultural and Rural Development, Iowa State University, Ames, IA, USA; [e]Department of Economics, Applied Statistics, and International Business, New Mexico State University, Las Cruces, NM, USA; [f]Department of Agronomy and Department of Economics, Iowa State University, Ames, IA, USA

*Corresponding author: squ@iastate.edu; +1-515-294-8343

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In 2019, sales of American agricultural products to China nearly dried up as Beijing retaliated against U.S. tariffs on Chinese imports. We solicited farmers' perceptions of risks engendered by the trade dispute through a survey of 304 corn and soybean growers in Iowa, Illinois, and Minnesota. We found that farmers' risk perceptions were affected more by psychometric factors; they expressed fear and dread about the trade war fallout in the absence of credible information regarding government plans of action, updates on trade negotiations, and expert recommendations. Findings point to the value of including farmers' perspectives to mitigate future trade disputes.

Keyterms: China-U.S. trade dispute; agricultural trade risks; farmers' risk perception; risk communication

Introduction

The tariff dispute between the United States and China reached unprecedented levels in 2019, sending jitters throughout the global market's supply chains. Several rounds of talks failed to prevent the U.S. from imposing initial tariffs on Chinese products worth more than $250 billion by June 2019 (MacDonald, 2019). China retaliated with duties on more than $110 billion worth of American goods, including substantial tariffs on agricultural products such as soybeans, pork, and ethanol (Zhang, 2020). Back and forth negotiations saw the U.S. adding tariffs to Chinese goods worth $550 billion by May 2020. China reciprocated with tariffs of its own on $185 billion worth of American products (Wang & Chipman Koty, 2020). Overall, the average U.S. tariff rates on Chinese products climbed from 3.1% in January 2018 to 19.3% in February 2020

(Bown, 2019). Corresponding Chinese tariffs on U.S. exports rose from an average of 8.0% in January 2018 to 20.3% during the same period (Bown, 2019).

As of September 1, 2019, China's retaliatory tariffs covered almost all agricultural exports from the U.S. (Bown, 2019), effectively placing American agriculture in a state of crisis. Several rounds of negotiations between the two sides failed to yield a breakthrough until the signing of a truce in mid-January 2020 (Horsely, 2020). To Zippy Duvall, president of the American Farm Bureau Federation, "China's announcement that it will not buy any agricultural products from the United States is a body blow to thousands of farmers and ranchers who are already struggling to get by" (Rodger & Perry, 2019, para.1). Although the federal government disbursed $23 billion in trade aid payments to farmers by the end of 2019, the move failed to fully offset the negative effects of the trade war in many states (Balistreri et al., 2018).

The impacts of this trade war on the agricultural economy and the wellbeing of American farmers cannot be overemphasized. One in four rows of U.S. soybeans goes to China. The country has consistently been one of the top two destinations for U.S. agricultural products, with annual exports reaching more than $20 billion (Qu et al., 2019). Scholars have thus examined the effects of the trade dispute on U.S.-Chinese bilateral relations, the U.S. economy in general, and the agricultural economy in particular (Balistreri et al., 2018; Liu & Woo, 2018; Li et al., 2018). The present study sought to understand corn and soybean farmers' overall concerns and claims about the trade dispute, the information they needed to make sense of the dispute, and the solutions they suggested to break the impasse and stave off future trade wars. In doing so, we offer policymakers, trade negotiators, risk communicators, and crisis communication strategists a first-hand look at what transpires on the ground when trade disputes occur, so that trade policies and negotiations are informed by farmers' views.

Our objectives are to (1) identify farmers' concerns, claims, suggested solutions, and information needs related to the trade war, and (2) determine their implications for management and communication efforts when disagreements ensue between trade partners. The goal is to inform balanced and reciprocal policies and structures that realistically account for the immediate and long-term repercussions of trade disputes in human terms.

Literature review and conceptual framework

Trade tensions rose between the two countries when the U.S. increased tariffs on Chinese-made washing machines and solar panels at the beginning of 2018, and on steel and aluminum in March 2018. Tensions escalated to a full-blown trade war as the U.S. applied multiple rounds of China-specific tariffs purportedly to protect domestic producers, and Chinese retaliated with charges of their own (Bown, 2020), including tariffs on major U.S. agricultural products such as soybeans starting in mid-2018 (Li, et al., 2018). These moves affected supply lines and raised costs, slowing manufacturing activity on a global scale and dragging down world economic growth (Li et al., 2018).

Sales of American soybeans, pork, wheat, and other agricultural products to China declined (Balistreri et al., 2018) and lucrative contracts farmers have long relied upon slowly evaporated as Chinese buyers tapped other countries like Brazil and Canada for the commodities they need (Rappeport, 2019). Losing the world's most populous country as an export market backfired on the U.S. farm industry. Farm bankruptcy filings in 2019 went up 13% from 2018 and loan delinquency rates climbed, according to the American Farm Bureau Federation (2019). The government tried to mollify farmers by offering two financial aid packages totaling $28 billion (Glauber, 2019). Economic observers detected some relief in early September 2019 when China exempted soybeans, pork, and other products from additional tariffs (Stevenson, 2019;

He et al., 2020) and in January 2020 when the two sides signed a phase one trade deal in which China promised to buy more U.S. agricultural products in 2020 and 2021. By this time, however, an economic crisis has already gripped the American heartland.

According to Ulmer et al., a crisis "is a specific, unexpected, non-routine event or series of events that create high levels of uncertainty and a significant or perceived threat to high priority goals" (Ulmer et al., 2007, p. 7). It is characterized by a high sense of urgency, a rapid rate of change, and uncertain outcomes. Because information during crisis situations is often confusing, contradictory, and subject to change as events unfold, the risks they engender remain unknown, considerably amplifying perceptions of harm and hazard (Ulmer et al., 2007).

Risk Perception and Communication in Crisis Situations

Risk has been defined as "a situation or an event where human value (including humans themselves) is at stake and where the outcome is uncertain" (Rosa, 2003, p. 56). People perceive risk differently, and that perception is influenced by information available in various social and cultural contexts (Boholm, 1998), among other factors. During a crisis situation, risk perception tends to intensify and people generally experience a range of strong emotions including fear, anger, anxiety, panic, denial, solidarity with others, and the need for personal control (Centers for Disease Control and Prevention, 2017). Communication strategies during times of crisis, according to Sandman (2003), must account for these responses. Risk communication is expected to explain the problem and put it in context, offer reliable information, give options for action, empower people to make decisions, move people to recovery, and help them attain a new level of readiness (Sandman, 2003).

Researchers conceptualize risk perception in two fundamentally different ways—one variously labeled analytical, deliberative, verbal, and rational; the other

intuitive, automatic, natural, narrative, and experiential. The first, often called the

rational approach, conceives of risk as a given attribute of technical estimates such as

fatalities or income loss (Slovik, 1987). The second, often referred to as the

psychometric approach, suggests that people's judgments of risk are sensitive to other

characteristics such as perceived potential harm to future generations (Bradbury, 1989;

Fischhoff, et al., 1983). It is postulated that perceived risk is greater for events whose

adverse effects are seen as uncontrollable, dreadful, catastrophic, fatal rather than

injurious, not offset by compensating benefits, and delayed in time so the risks are

likely to be borne by future generations (Fischhoff et al., 1983). We thus posit a
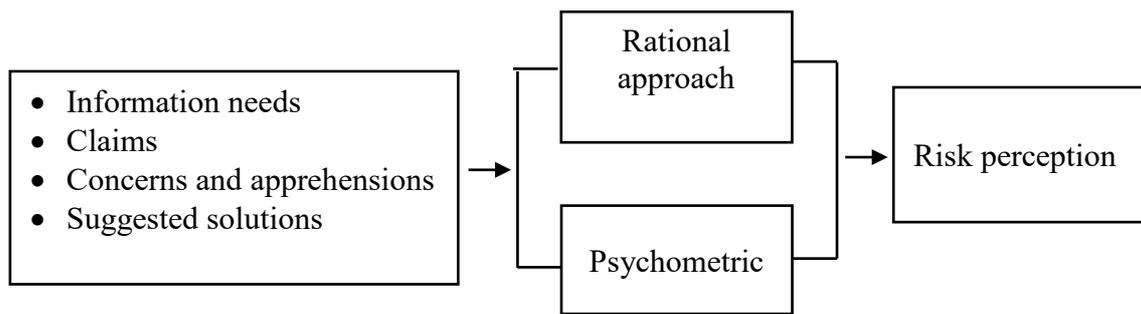
conceptual framework shown in Figure 1.

Figure 1. The study's conceptual framework

The Rational Approach to Risk Perception

The rational approach, which sees risk perception as a form of deliberative and analytic

information processing, has dominated initial conceptions of the origins of risk

perception. According to it, during crisis situations, people normally lack the

information they need to understand ongoing events, cope with them, and make

decisions to curb hazards and harm. Thus, the public must be educated about the risk.

Their response to information must be understood and predicted (Kasper, 1980). Risk

communicators are thus advised to provide audiences with answers to questions such as,

"What caused the problem?" "What do I need to know about this event?" "What other

facets of this event are within my control?" "What other problems or concerns may arise from this?"

To the proponents of this approach, risk management requires careful thought and research "to clarify just what it is that people know and believe" (Slovik et al., 1985, p. 278). Only then can the underlying problem and its associated solution—scientific, educational, semantic, or political—be diagnosed (Fischhoff et al., 1983). This approach, therefore, relies on factual information that provides common ground for deliberation and allows citizens to evaluate public policy, which in turn shapes their behavior. Based on the tenets of this approach, we ask:

RQ1: What kinds of information did farmers need to cope with the protracted trade dispute between China and the U.S.?

RQ2: What claims did farmers make about the trade dispute?

The Psychometric Approach to Risk Perception

According to Covello et al. (2001), aside from harm and probability of occurrence, "many factors affect how risks are perceived, and these factors can alter risk perceptions in varying degrees" (p. 384). Subsumed under this approach are the pioneering studies of Slovic, decision analysts, and a large body of attitudinal research. Their lines of inquiry have examined a wide range of factors, including underlying beliefs and values, that are incorporated into an individual's assessment of risk. According to this perspective, people relate judgments about risks to their assessments of a hazard's attributes, such as perceived voluntariness, dread, knowledge, controllability, and the benefits it provides to society. The capacity of these attributes to elicit strong negative emotions led them to be labeled "outrage factors" (Sandman, 2003; National Research Council, 1989). For example, according to Covello and his group (2001), "risks perceived as involuntary or imposed are less readily accepted and are perceived as

greater than risks perceived to be voluntary," while "risks perceived as under the control of others are less readily accepted and are perceived as greater than risks perceived to be under the control of the individual" (p. 385). These outrage factors, which can be detected in people's discourse when expressing their concerns, may serve as central organizing ideas that provide meaning to farmers' reactions to the trade dispute with China. Following the psychometric approach, this study asks:

RQ3: What concerns did farmers harbor about the trade dispute?

The Search for Solutions

Douglas and Wildavsky (1982) emphasize that differences in views of risk can be understood best by analyzing different forms of social organizations and the various groups involved in, and affected by, policy implementation (e.g., policymakers, farmer-producers, the agricultural industry in general). As patience wore thin over the protracted trade dispute, "everyone is bellyaching and looking to do something" (Rodger & Perry, 2019, para. 3). Our study prioritizes the views of those at the production frontlines and asks:

RQ4: What suggestions did farmers offer to solve the trade impasse between the two countries and to avoid future trade conflicts?

Methods

Data to answer our research questions were gathered by analyzing the open-ended responses of 304 corn and soybean producers in the U.S. Midwest to a survey conducted in 2019. At the end of the questionnaire, respondents were asked to record their thoughts or comments about trade issues between the U.S. and China in general and the trade dispute between the two countries in particular. Before answering the open-ended question, respondents were asked about their attitudes toward the trade conflict, their information seeking habits regarding the issue, the impact of the trade

dispute on their own farms and on U.S. agriculture as a whole, their knowledge about the topic, their crop marketing and storage practices, and marketing and storage plans.

A sample of 3,000 corn and soybean producers, age 18 or older, in the states of Iowa, Minnesota, and Illinois, the top three corn and soybean producing states, were asked to participate in an online survey (USDA, 2929a & 2020b). To be eligible, they should be farming at least 250 acres. We followed the tailored mixed mode survey design to recruit participants and increase response rate (Qu et al., 2019; Dillman et al., 2014). On March 13, 2019, we sent out an invitation to complete the online questionnaire, followed by a reminder mailing with a hard copy of the questionnaire, which was sent in two waves, on April 15 and May 7. Data collection was closed on June 12. A total of 774 farmers responded to the questionnaire; 304 provided qualitative responses that were analyzed for the present study.

Of the 304 respondents, 42.6% were from Iowa, 28.4% from Illinois, and 28.4% from Minnesota. The majority were male (93%) and had some college or associate degree (36.6%) or a bachelor's degree (34.0%). The average age was 61.6 years. About a third (29.3%) reported an annual gross farm income of $250K-$499K, 24.6% said they earned $500K-$999K per year, and 25% reported annual earnings of over $1 million. Slightly over two-thirds (72.7%) derived income from off-farm sources. The 304 respondents who provided written responses shared more similar demographic characteristics compared to the other survey respondents.

We conducted constant comparative thematic coding, which assigned comments about concerns, solutions, claims, and information needs into emergent themes or categories. To increase confirmability and dependability of results, we kept an audit trail with details on theme and category definition (MacQueen et al., 1998). Open coding, axial coding, and selective coding were conducted, in that order (Corbin &

Strauss, 2008). Researchers then discussed the audit trails and finalized the themes and

categories for accuracy and trustworthiness (Creswell & Erlandson, 2007; Erlandson et

al., 1993).

Results

Table 1 lists the most frequently occurring themes in farmers' written responses

regarding information needs, claims, concerns, and suggested trade dispute solutions.

Table 1. The most frequently occurring themes in farmers' perceived information needs, claims, concerns, and suggested solutions

Categories/Themes	Number of times mentioned	% of responses falling within each theme
Information needs (n=12)		
1. Reliable updates	4	9.5
2. Details of trade talks	6	50.0
3. Others	2	16.7
Claims (n=100)		
1. Trump is doing a good job	19	19.0
2. China has been acting unethically in trading	12	12.0
3. Trump and his negotiating team lacks competencies	11	11.0
4. Tariffs don't work	10	10.0
5. Farmers' suffering will bring long-term gains	10	10.0
6. Misperceptions about the bilateral trade situation	10	10.0
7. Others	28	28.0
Concerns (n=90)		
1. Financial hardship for the farm sector	18	20.0
2. Lost markets will be difficult to recover	15	16.7
3. Farmers are getting hurt the most	11	12.2
4. Farm crisis will happen again	9	10.0
5. Overproduction is a bigger problem than tariffs	6	6.7
6. The trade dispute will not be easy to solve	3	3.3
7. Others	28	31.1
Solutions (n=132)		
1. Get China on a level playing field	22	16.7
2. We need to support Trump	21	15.9
3. Trump is messing things up, needs to go	12	9.1
4. More fair trade and free enterprise	10	7.6

5. Expand markets	5	3.8
6. Work together and end partisanship	5	3.8
7. Others	57	43.2

RQ1: What Kinds of Information did Farmers Need to Cope with the Trade Dispute?

Farmers' open-ended responses threshed out three major categories of information needs: reliable updates on the trade negotiations, semantics of tariff imposition, and details about the trade talks (Table 1).

Need for Reliable Updates

The mass media are among the channels that communication officers tap to disseminate essential information and convey risks, but our respondents perceived a dearth of reliable information from these information sources. Four doubted whether news reports were conveying the "associated facts." Farmers, they observed, were "not that well informed" and could only "wish that news reports were more truthful." "There's so much fake news out there that it is very difficult to determine what is fact and what is manipulative opinion," said a respondent. "You cannot believe everything you hear or read." Another farmer, dismayed about media performance, found the national media "disingenuous and a disgrace."

Need for Trade Talk Details

Six farmer-respondents were worried they do not know enough about how tariffs were being implemented. "Where does the money go?" asked one. Others wanted to know: "What is the government's game plan?" "Has someone come up with a strategy?" "When can we see markets open up again for soybeans and corn?" A few said they would like to learn more about the semantics of the trade talks. "The average person knows very little about the inner dealings that go on in ag trade deals," one of them wrote. Another respondent posed a string of questions: "Who represents the U.S. in

these talks? Do they work for private companies or government agencies? How much do they get paid? How much does it cost to get these talks going? Where does the disagreement lie? Exactly on what topics are the parties not seeing eye to eye?"

RQ2: What Claims did Farmers Make about the Trade Dispute?

We detected a total of 86 claims and counterclaims from the open-ended responses, some were factual while others were conjectures. The most frequently mentioned claims fell under five major themes: Trump is doing a good job, China engages in unethical trading practices, Team Trump lacks competencies, tariffs don't work, and temporary suffering will bring long-term gains (Table 1).

Trump is Doing a Good Job

Many were delighted that, after being "taken advantage of for too long," the U.S. is finally "trying to fix the problems with China." According to one respondent, "Trump is the only president with enough guts to stir the pot; those before him just went along with the Chinese to keep the peace."

China has been Acting Unethically in Trading

Farmers' support for President Trump was solidified by the oft-repeated belief that China has been behaving like a bully—and unethically—for quite some time. "Tariffs on commodities is a weak way to stop the theft of intellectual property, which China has a long history of doing with impunity," a farmer volunteered. Added another, "The Chinese do not play by the rules. They cancel [shipment] orders that are not in their favor. They continue to steal our patents. Only President Trump has tried to stop these unfair trade practices." This frustration is in part due to China's erratic buying behavior. For instance, China shut out U.S. beef for 14 years over a mad cow scare in 2003,

keeping the ban more than a decade after other countries like Japan and South Korea have lifted theirs (Zhang et al., 2019).

Team Trump Lacks Competencies

While many admired Trumps' initiatives, some derided his lack of negotiating acumen. A farmer observed that "Trump won't take advice from experts. He says his gut is more reliable than anyone else's brains. He does not understand that we cannot isolate ourselves; we need trading partners."

Tariffs don't Work

Some vehemently disagreed that tariffs accomplish anything. According to one farmer, "Tariffs have not been a good negotiating strategy in the past; neither will they work now. We have alienated trade partners around the world with our brash, in-your-face approach." Another frustrated farmer stressed, "Nobody wins a trade war. If China is stealing from the U.S., that's a job for the FBI, not for dumb Donald Trump."

Temporary Suffering will Bring Long-Term Gains

A number of farmers were optimistic that the trade war would have temporary negative effects on U.S. agriculture and their farms, but they will bring long-term gains (e.g., "Trump is a brilliant president. Even though the ag sector is hurting now…I'm very optimistic about the future;" "I know we will end up with a better deal;" "Although farmers are now taking the biggest hit, the tariffs will benefit the country in the long run;" "Farmers who can make it through this trade war will be better off in three years").

Misperceptions about the Bilateral Trade Situation

Although respondents named only a few information items they need to fully grasp unfolding events, some of their claims pointed to possible misperceptions about the trade situation with China. The following are two of the most popular:

The U.S. will suffer more from the trade dispute. Respondents tended to underestimate the trade dispute's impact on China while heavily emphasizing its deleterious effects on U.S. agriculture. For example, some were steadfast in the belief that the U.S. stands to lose a large soybean market as China scouts for other sources. Agricultural economists submit, however, that the Chinese economy will likely take a heavier hit from the trade dispute (Li et al., 2018a). Historically, almost a third of China's soybean demand is filled by the U.S.; the rest comes from Brazil and other countries. Indeed, China accounted for 75% of Brazilian soybean exports before the trade war (Zhang, 2020). Although alternative sources can be cultivated, economists say it will take a significant amount of time for other nations to satisfy the Chinese soybean demand.

The dispute spoiled lucrative export opportunities. Some farmers lamented the timing of the trade war, arguing that it had to happen at a time "when our export opportunities were the greatest," alluding to the upward trend in American agricultural trade prior to the dispute. However, according to Hart and Schulz (2014), the uptick in ag trade between the two countries was mainly a result of Chinese economic growth and globalization, especially after China joined the World Trade Organization in 2001. In particular, Chinese consumers who have grown more affluent are now demanding more meat, which caused a spike in Chinese soybean imports. Trade conditions were not at all that auspicious considering that China has been buying more from Europe, Brazil and Australia since 2012 (Zhang, 2019).

RQ3: What Concerns did Farmers Have about the Trade Dispute?

Farmers' concerns about the trade squabble with China and its fallout fell under six major themes: farmers are getting hurt the most, the farm sector will suffer great

financial hardship, the dispute will not be easy to resolve, lost markets will be difficult to recover, a farm crisis will happen again, and overproduction, not the tariffs, is the bigger problem (Table 1).

Financial Hardship for the Farm Sector

Farmers were worried that the dispute could drive down the price of grains. As one respondent explained, "It [the trade war] is killing our prices…We will never get back what we lost for the last two years. I stand to lose money on three years of crops for nothing…The whole country is paying for this trade war." Another agreed with this sentiment, saying "It will cause such financial hardship. Rural America will suffer; farm families will not be able to hang on financially." The 2018 Market Facilitation Program (MFP) payments apparently did not do much to ease their financial woes. "The price of corn dropped approximately 63 cents, pulled down by the soybean price," but the [2018] MFP paid only a cent per bushel (Glauber 2019), complained a farmer. "The $1.65/bushel the government gave us for soybeans helped meet some expenses, but if we had $1.00 more, that [would have] translated to profit we can use to buy machinery, land or other inputs."

Lost Markets will be Difficult to Recover

Farmers expressed concern that the dispute was jeopardizing future markets for grain products. Even if trade disputes were resolved, they surmised, the market will not recover easily—"It takes 20-30 years to develop trade agreements and far longer to rebuild trust. Other countries are finding ways to get their products to China; the Chinese don't have to beg on their knees for ours." Another agreed, worrying that "it will take years to recover from the trade disruptions the tariffs caused."

Farmers are Getting Hurt the Most

Farmers saw themselves "at the bottom of the food chain," "caught in the crossfire," and will disproportionately bear the brunt of the trade war compared to other industry sectors. A farmer's comment captured this sentiment: "We are the number one pawn in a game in which we have nothing to gain."

A Farm Crisis will Happen Again

Many saw the current trade fiasco with China as akin to the one that resulted from the grain embargo President Jimmy Carter imposed against the Soviet Union in 1981, which helped foment the infamous 1980s farm crisis. "Carter's embargo did damage to our markets for years, and I'm afraid this [current dispute] will do considerably more damage for a longer period of time." Another farmer warned that if this persists, "farming would be in a worst state than in the mid 80's…Livestock and grain prices will not be able to sustain agriculture in the future." "It took decades to overcome the adverse effect of that embargo," recalled a seasoned farmer. "Embargoes don't work, and neither do tariffs."

Overproduction is a Bigger Problem Than the Tariffs

Some farmers see overproduction, not tariffs, as the main reason behind the dismal price of grains. "There is too much grain produced in the world. Ukraine, Russia, and South America all compete with the U.S. in exporting grains," explained a farmer. "We raise too much, had too many good years in a row, and now we face a big surplus. It's not so much the trade issue that is the greater concern, but the record production around the globe that leads to oversupply and depressed prices."

The Trade Dispute will not be Easy to Resolve

Less optimistic than the government, farmers were concerned that the issue will take much longer to resolve: "A trade war that is 'good and easy to win' is always a fallacy. Multilateral trade deals are complicated and can take 20-30 years to work through."

RQ4: What Suggestions did Farmers Offer to Solve the Trade Impasse and Avoid Future Trade Conflicts?

Farmers were forthcoming with their suggestions on how to ease the tension and restore friendly relations with China. A total of 132 had something to say about how to remedy the situation, concurring that an enforceable agreement must be reached—and with dispatch: "Something needs to be done in two years at the most, or it will be too late for producers;" "This can't go on; we are literally at the end of our rope." From farmers' answers, six major themes were most frequently mentioned: get China on a level playing field; Trump is doing the right thing, let's support him; Trump is messing things up, he needs to go; more fair trade and free enterprise; expand markets; let's work together and end partisanship (Table 1).

Get China on a Level Playing Field

The most repeated suggestion—that China needs to be "reined in" so that it operates on a "level playing field" (n=22)—was driven primarily by concerns that the Asian country has long undermined the U.S. economy by pursuing unfair trade practices, demanding technology transfers, stealing intellectual property, and imposing non-tariff barriers that impede access to Chinese markets. Those who put forward this solution believed that "fair is fair. Imports from and exports to China should be closer to equal in value." To those who held this view, "China needs to be reprimanded for its theft of intellectual property, violations of patents and agreements, environmental damages, and human rights incursions." A respondent stressed, "I'm tired of China stealing intellectual property. Although it might be difficult to out-negotiate the Chinese, China's state trading enterprises and technology theft have to be stopped."

We Need to Support Trump

As the farm belt braced for deeper pain, 21 respondents expressed strong approval of how the president was handling the issue. Many expressed solidarity with President Trump whom they trust to "do the right thing." "Let Trump do what we elected him to do," admonished a respondent. "Please stop lambasting the White House on this issue," begged another. "I trust Trump is doing what is best for our country and soon we will gain more than what we have lost. If everyone would just support the president, the trade war would be over by now," another respondent chastised. "This trade agreement should have been solved 30+ years ago, but nobody had the guts to do it." "Trump got us $1.65 for our beans," another supportive farmer explained. "It's been brutal," confided a respondent, "but I still support the president. Why didn't previous administrations do anything?"

Disappointment with Trump

While many lauded Trump, 12 farmers displayed discontent about how the White House handled the problem. Many of these comments called for a change in leadership: "Trump needs to go;" "Hopefully [there will be] another president in 2020 and the Trump tenure can be relegated to the dustbin of history"). Those who advocated for a changing-of-the-guard complained of the current administration's lack of ability to conduct trade negotiations in general: "Trade negotiations should be handled by educated adults. We need better people in charge." "We were told we would have the best and smartest people in this administration—so much for that!" They were outraged by the president's "use of farmers as fodder in his senseless, unwinnable trade war." "Trade wars never work," some were quick to point out, "and Trump should just shut up."

More Fair Trade and Free Enterprise

Some farmers were adamant that the administration should have taken a different approach, one that did not directly antagonize a longstanding trade partner, but instead encouraged fair, balanced, and open trade. "Tariffs aren't the best way to solve matters. We would rather see that as a last resort measure," three farmers said. "Open trade negotiations around the world will improve the survival of the small American farmer," according to a respondent. "I want less government and more free enterprise."

Expand Markets

Some would like to see the administration get back to the negotiating table with China while expanding the list of trade partners. "I hope we can find more opportunities to trade with other nations rather than relying heavily on China. There are opportunities for trade with other parts of the world, but I'm not sure we're taking advantage of them," one of the five who proposed this solution said.

Work Together and End Partisanship

According to five farmer-respondents, "those in Washington, D.C. need to stop fighting. It's time to work together to solve problems and not worry about the next elections." Another stated similarly: "It would be nice if people really look at issues instead of being for or against an idea just because it emanated from a Democrat or a Republican."

Discussion and Conclusions

Farmers' open-ended responses showed a mix of rational and psychometric determinants of their perceptions of risks engendered by the prolonged Washington-Beijing row over trade. Farmers' comments that alluded to rational aspects had more to do with the information items they said they needed to make sense of the issue and follow its course. Although farmers volunteered few of these information items, our findings suggest lingering misperceptions can be corrected by providing more updates and details of progress in trade talks. Following the rational approach, risk

communicators are advised to identify and correct false beliefs that may have resulted from either misinformation or from cognitive biases that play a causal role in attitude formation. The expressed need for information about updates, the semantics of tariff implementation, and trade talk details suggest the importance of verifying and disseminating information about critical events so that people are able to formulate and implement protective measures.

Farmers' concerns were focused on the economic impact of the trade dispute. This implies that reporters will do well to solicit the analyses of economics experts in media reports. Expert insights are likely to attenuate anxiety, point to meaningful calls to action, and offer recommendations on mitigation techniques and steps farmers can take to, for example, alleviate marketing and storage concerns during uncertain times.

Crisis communicators often feel an urge to be overly certain and reassuring in the face of rapidly changing events. However, in an inherently uncertain situation, overly reassuring statements may create higher levels of alarm, particularly when trust levels between farmers and those who manage risks at the national level are in question. Our findings suggest that in the long run, admitting to the ambiguity of a situation, being explicit about changes in predictions and policies, and acknowledging errors and deficiencies will go a long way in enhancing trust.

This study reveals farmers' disappointment with the quality and integrity of news reports from the media. Their low evaluation of media performance calls for an in-depth examination of the quality of media coverage of the topic to ascertain the extent to which risk reporting is able to satisfy farmers' information needs. Media and crisis communication practitioners also need to provide customized reporting to fulfill information needs for different types of farmers (e.g., crop or livestock) and other audiences.

We detected more "outrage" factors in farmers' discourse. For the most part, our respondents' comments communicated significant fear and dread about the consequences of a protracted trade war, indicating more psychometric origins of risk perception. China's propensity to cancel orders and its prolonged embargo of U.S. beef may have triggered these sentiments (Zhang et al., 2019). Most perceived the dispute as being outside of their control, fueled by the two sides' competing economic agenda. Fischhoff and company (1980) argued that when a situation is perceived as uncontrollable, individuals tend to assign blame quickly. Based on farmers' concerns and their suggested solutions, the most cited culprits were China, the U.S. government, President Trump, Congress, officials from both sides of the political aisle, and previous U.S. presidents. On the other hand, people who were more trusting were more willing to take on risk (Fischhoff et al, 1983).

Our findings show that farmers' perceptions of risks differed depending on their attitudes about the commander-in-chief. Those who implicitly trusted him asked for patience and argued that future gains will offset any temporary loss. Those who found the president incapable of leading the charge, however, saw a brighter future in his absence.

Past events also figured prominently in farmers' conceptions of the issue. A number of comments equated the current dispute to the grain embargo President Carter imposed on the Soviet Union in the 1980s and the farm crisis it helped spawn. Although banning grain exports to another country is different from refusing to buy American farm products as a retaliatory measure against commodity tariffs, references to what happened in the 1980s reflected the influence of experience in shaping cognitions. It thus behooves risk communicators to acknowledge the power of historical events to

shape attitudes about present and future trade disagreements. Communicators should also exercise care in explaining and comparing risks engendered by two discrete events.

Farmers were deeply concerned about the impact of the trade dispute on future marketing opportunities, afraid that it might permanently damage trade relationships with China as other countries waited in the wings to take on the role of grain suppliers to the world. Sandman (1980) stressed the need to legitimize people's fears, valid or not. Some of these worries can be relieved by providing more information. For example, farmers await a "playbook" from the government on how it intends to negotiate—and steer away from—trade disputes. More importantly, however, greater transparency and broadening the range of voices, including those of farmers, economists, trade experts, and producers, in discussions about remedial measures should reduce feelings of "being left out of the national conversation" while respecting diverse opinions.

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