

Attitude changes through speed-dating conversations between farmers and citizens

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ABSTRACT

Alienation between farmers and citizens has increased with agriculture's intensification and specialization in food supply-chains. More direct and equal dialogue formats are called for. Our research aim is to analyze to what extent a specifically designed dialogue format contributes to attitude changes among farmers and citizens. In a speed-dating format between farmers and citizens short conversations were organized. Attitudes were measured before and after the conversations. Fact-based and personal statements within the conversation were identified by quantitative content analysis. Our results indicate that the mid-term effect of speed-dating induced attitude changes was influenced more by fact-based aspects and less by personal aspects. Keywords: speed-dating, farmer-citizen-dialogue, attitude change, dyadic communication, trust building

1 Introduction

Farmer-citizen-alienation has increased with agriculture's intensification and specialization in food supply-chains (Behrendt, 2010; Williams et al., 2011). At the same time society's values towards animals and the environment have changed. As a consequence, attitudes about farming practices diverge between farmers and citizens (Rovers et al, 2017): Media reports on agriculture show very diverse images and attitudes towards agricultural production systems (e.g. Wolfram et al., 2021), but especially the critiques and negative images are manifested in people's minds (Rozin and Royzman, 2001). The criticism relates, for example, to residues in food, farm size structures, monocultures, pesticide use, animal husbandry practices, genetic modification, or the distribution of farm premiums (Rovers et al, 2017b; 2019).

Despite a generally positive attitude of society towards farmers themselves (Zander et al., 2013; Helmle, 2011), the agricultural sector feels exposed to persistent critical generalizations and polarizing media portrayals. As a consequence, citizens' trust in agricultural production is dwindling, leading to alienation between the two groups. Critical issues are usually shared of social groups who position themselves as representatives of a broader social movement and who achieve a great external impact (Wolfram et al., 2021). Their increasing presence in society, combined with a growing public attention of the agricultural sector - having been avoided for a long time, now confronts the agricultural sector with the new challenge to tackle criticism, to channel it and - in addition to the knowledge transfer that is considered important - engage with the concerns of the population in critical but open discussions and dialogues (Albersmeier, 2010).

Up to now, classical public relation strategies from the farming sector aim to convince the public by unidirectional communication and education strategies. However, effective communication strategies in dealing effectively with the public are not sufficiently addressed (Albersmeier, 2010). More dialogue-oriented communication strategies can potentially rebuild trust between citizens and farmers (e.g. Spiller et al., 2016; Berkes et al., 2020) as it has been demonstrated in other industries (e.g. Zöller, 2005; Mercer-Mapstone et al., 2018). Direct forms of communication that appeal to the breadth of society and agriculture offer the potential, in theory, to sustain agriculture's social licence to operate and give farmers more insights into the reasoning of critical citizens (cf. Benard et al., 2013). Our main research question is to what extent a specifically designed speed-dating format triggers attitude changes and mutually approaching viewpoints among participants.

2 Data and methods

In a speed-dating format between farmers and citizens short conversations were organized. The speed-datings took place at a neutral venue, not open to the public and without spectators in June and July 2019 in four dif-

ferent locations in the state of North Rhine-Westphalia (NRW) in western Germany. In five rounds of conversations, one topic from the fields of agriculture and nutrition was discussed each time.

	Topic 1	Topic 2	Topic 3	Topic 4	Topic 5
Table 1	C1+F1	C2+F3	C3+F5	C4+F2	C5+F4
Table 2	C2+F2	C3+F4	C4+F6	C5+F3	C6+F5
Table 3	C3+F3	C4+F5	C5+F1	C6+F4	C1+F6
Table 4	C4+F4	C5+F6	C6+F2	C1+F5	C2+F1
Table 5	C5+F5	C6+F1	C1+F3	C2+F6	C3+F2
Table 6	C6+F6	C1+F2	C2+F4	C3+F1	C4+F3

Figure 1. Empirical strategy to arrange individual speed-dating conversations between farmers (F) and citizens (C) about different topics sitting at different tables (seating plan)

The topics covered livestock husbandry, technology, environment, agricultural policy and valuation. Each of the 46 participants (3 locations with 12 participants each and 1 location with 10 participants each) had 3-5 conversations with one participant of the other group respectively. This resulted in a total of 110 specific topic-person constellations. The participants sat at a table directly facing each other. Each conversation lasted 14 minutes on average. After each conversation, each person moved to a next table according to a previously designed seating plan. All conversations were audio-recorded. Fact-based and personal statements were extracted by a qualitative content analysis and subsequently counted per conversation and person. Statements were identified per aspect mentioned and not by the number of sentences employed.

Table 1.

Definition of fact-based and personal statements employed during the conversations			
VARIABLE	DEFINITION	MEANING AND INTERPRETATION	VARIABLE TYPE
fact-based statement	constructive engagement with the content of the conversation: Fact-based/knowledge-based exposition from the objective world.	generates clarification/clarification of circumstances, demonstrates competence, which in turn generates trust	ordinal (frequency per dialogue)
personal statement	social values/norms and experiences/opinions from the social world that are presented	honest motivations are explained, underlying issues are dealt with, empathy and reflexivity are induced; empathic responses enable attitude change	ordinal (frequency per dialogue)

Farming related attitudes were measured quantitatively before persons came to the dialogue, directly afterwards and four months after participation. For each of the five topics 2-4 attitude items were employed. Differences in attitudes were aggregated per person and topic. Figure 2 gives an overview of the items employed for attitude measurement. Responses were documented on visual analogue scales (VAS) ranging from “completely disagree” to “completely agree”, which were converted to values between 0 and 100.

- Livestock husbandry and animal welfare
1. Animals in livestock farming deserve esteem, respect and care.
 2. I think antibiotics can be used in animal husbandry when an animal is sick.
- Technology in agriculture
3. I think the use of drones in agriculture makes sense.
 4. I find the technical progress in agriculture valuable.
 5. More technology in the barn enables more animal welfare.
- Environmental protection in agriculture
6. Agriculture produces food without harming soil, water and air.
 7. The renunciation genetic engineering in German agriculture makes sense to me.
 8. Agriculture is responsible for the maintenance and preservation of the landscape.
 9. I think more food should be grown organically.
- Agricultural policy
10. Farmers represent their own interests too strongly in public.
 11. Agriculture needs more political planning security than other economic sectors.
 12. I think it is good if farmers provide renewable energy.
- Food esteem
13. I think that food is sufficiently valued through the price when purchasing it.
 14. Direct marketing of food from agriculture matters to me personally.
 15. I believe that I am more willing to spend more money on food than other people.
 16. I find it an enriching experience to talk to a farmer / a consumer in person.

Figure 2. Attitude items subdivided into five topic areas employed to measure attitudes before the conversations and four months after

For analytical purposes, participants were grouped as having low, medium or high changes in attitudes between the surveys before and four months after the conversations. In addition, we differentiate between farmers and citizens. In our bivariate analysis we looked at the connection between education (distinguishing between high school completed [high edu] and without high school completion [low edu]), the change in attitude before and four months after the conversation and the number of personal or fact-based statements. Descriptive statistics with the comparison of subsamples are used in preliminary analyses.

3 Results

Figure 3 shows the extent to which farmers and citizens changed their attitudes - in the short term, i.e. before and immediately after the conversations and in the mid-term, i.e. before and four months after the dialogue format. Attitude changes of citizens are generally larger than those of farmers. Attitude changes in the short term were generally larger than in the mid-term perspective.

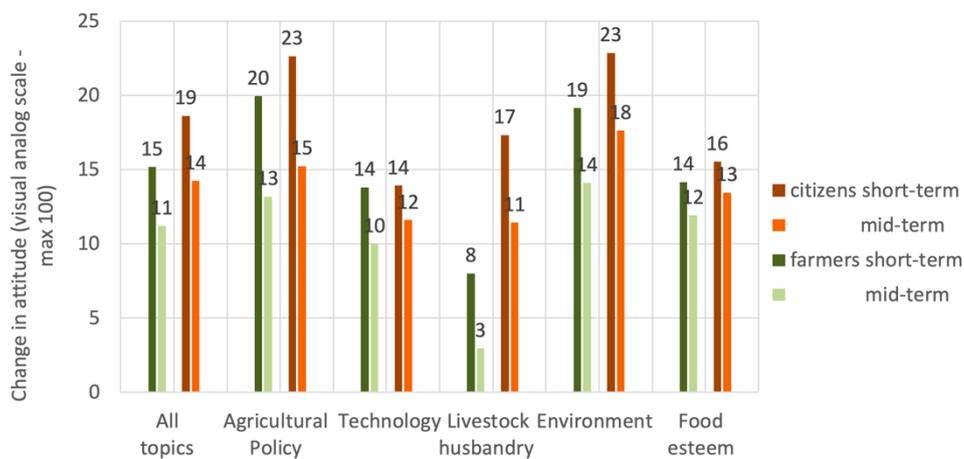


Figure 3. Mean attitude change of farmers and citizens between the measurement before the conversation and directly afterwards (short-term) as well as before the conversation and four months after (mid-term) differentiated for the topic areas

Looking at the extend of the attitude changes there are larger shares of conversations in which citizens participated (37%) than those which farmers participated (23%) that led to high attitude changes (fig 4). Accordingly, for low changes in attitudes it is the other way round: in more conversations of farmers (41%) than in conversations of citizens (25%) low attitude changes occurred between the survey before the dialogues and four months after. For conversations with medium changes of attitudes the shares of citizens' and farmers' conversations are very similar (36% vs. 38%). The number of personal statements used by the respective conversation partners do not vary much between farmers and citizens. Between conversations that led to high and low attitude changes there are small differences – only in low attitude change conversations the mean number of personal statements is slightly lower for farmers' conversations (5,1) vs. in citizens' conversations (5,3) as compared to medium (5,9 vs. 5,9) and high (5,8 vs. 5,4) attitude change conversations. For fact-based statements the pattern is different: farmers were confronted with considerable lesser fact-based statements from citizens. The number of fact-based statements is not connected to attitude changes of farmers. For citizens' conversation, however, considerably more fact-based statements were used by farmers when citizens had high attitude changes (6,9 fact-based statements) as compared to conversations with low attitude changes (4,9 statements).

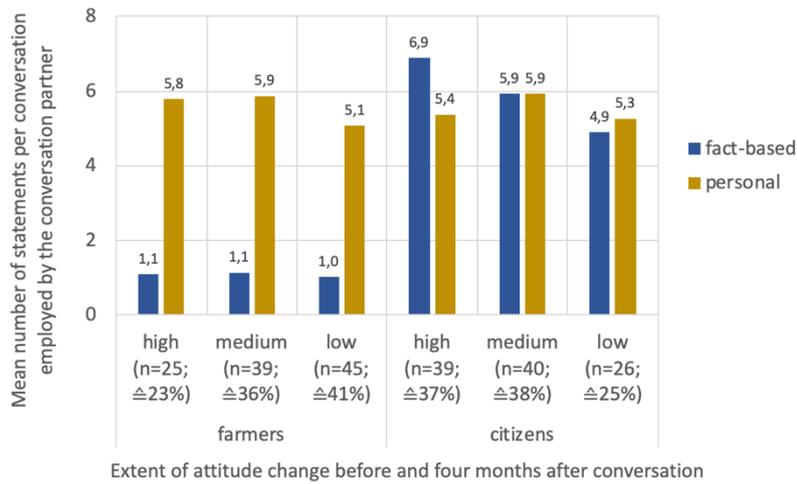


Figure 4. Mean number of fact-based and personal statements per conversation employed by the conversation partner distinguishing the extend of change in attitudes and distinguishing farmers and citizens

Figure 5 distinguishes between participants with higher and lower education. The share of participants with higher education is generally lower in high attitude change conversations. This equally applies for farmers and citizens.

Figure 5. Mean number of fact-based and personal statements per conversation employed by the conversation partner

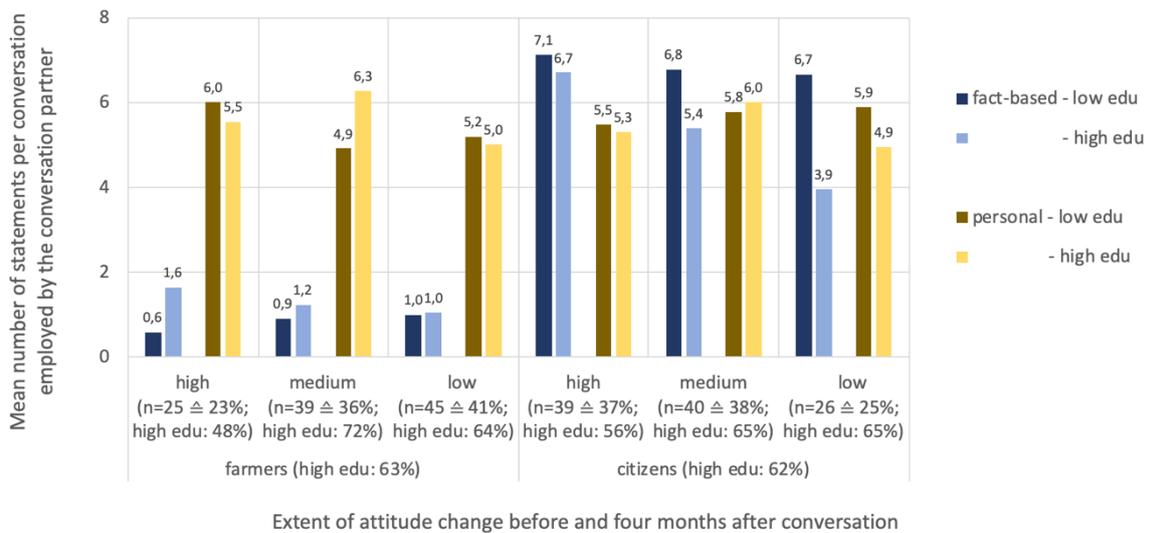


Figure 5. Mean number of fact-based and personal statements per conversation employed by the conversation partner distinguishing the extend of change in attitudes and distinguishing farmers and citizens and their respective education levels

Higher educated farmers rather changed their opinions when they were confronted with more fact-based statements. For lower educated farmers it was rather the other way round: less fact-based statements were used in conversations of farmers which led to high attitude changes. For citizens the pattern is different: in high attitude change conversations the average number of fact-based statements by farmers was higher basically irrespective of the education of the citizen. In low attitude change conversations the number of fact-based statements employed by farmers differs considerably. While they were high for citizens with lower education the number of fact-based statements used by farmers was considerably lower when citizens had higher education. The link between personal statements and changes in attitudes distinguishing higher and lower education is less clear.

4 Conclusions

In general, results show that citizens had stronger attitude changes than farmers and mid-term attitude changes were weaker than short-term attitude changes. At the same time, our results indicate that the effects of the speed-dating conversations were influenced more by fact-based aspects and less by personal aspects. This seems understandable in a first and short encounter of persons unknown to each other within the speed-dating conversation which does not allow for profound trust building (Wüst, 2012). Longer lasting conversa-

tions might strengthen a deeper understanding of the “other’s” situation and increase trustworthiness. However, the educational component seems unavoidable in generating trust and convergence (Akitsu & Aminaka, 2012). Further analyses might look at the interaction between fact-based and personal statements: perhaps fact-based explanations only achieve an effect when one has found a personal approach through personal statements (Fuchs et al., 2016; Chess et al., 1988).

A high number of factual statements as a knowledge transfer strategy leads to higher attitude changes only among citizens according to our results. Knowledge transfer is a topic discussed also in other contexts with conflictive issues (Masser et al., 2018; Kühl et al., 2016) showing that factual information is usually integrated in personal encounters. This combination is essential in building trust. However, the intensive farming sector in Germany holds the view that public opposition to intensive farming mainly stems from limited knowledge of farming (Berkes et al., 2020). In consequence there is a general perception in the farming sector that more fact-based education campaigns help to regain societal acceptance of their production systems (Starr et al., 2003), i.e. the license to operate. Thus, farmers might have felt pressured to include many factual statements. Even though this communication strategy seems to be partially successful to change topic-specific attitudes in the mid-term, we cannot show with our analysis here if and how the conversations might impact on a long-term effect. If the trend of stronger short-term and weaker mid-term effects would be extrapolated, long-term effects on attitude change might disappear completely. This raises the question if the format is suitable to regain trust towards intensive agriculture and improve the public image of intensive agriculture.

Surveys in Germany indicate (Forsa, 2018) that the population has interest in more direct contact with farmers. Our dialogue format could be further developed to allow more freedom in the topics to be discussed and to give participants also more time. Also, the observational situation might have influenced participants’ communication behavior. Therefore, it could be verified in future studies if attitude changes can be sustained by allowing longer conversation formats without being observed and without being recorded for deeper analyses. In this way, in-depth conversations may occur wherein the core of critical issues can be dealt with.

In order to establish a more goal-oriented communication with a widespread impact, training courses on communication styles might be advisable for representatives of i.e. consumer protection organizations and farmers’ associations who participate in more public communication formats. For them, dialogue communication training might be an appropriate and effective investment for public relations offices in the agricultural sector.

The overall positive attitude towards conversations also shows that there is a future potential to find compromises also between different conflictive stakeholder interests such as environmental sustainability, animal well-being and farm-profitability. For conflicts that seem incompatible or not compensable in agricultural practice (Spiller et al., 2015), efforts should be made to find compromises for trade-offs. For this, deep discussions about access and equity might be necessary to understand possible consequences for both groups (Taylor, 2018). Also, technical or organizational innovations hold the potential to relax trade-offs and to find solutions for conflicting positions. Our results indicate that dialogue-oriented communication formats have the potential to generate new perspectives.

Consequently, the speed-dating format might be a feasible and effective instrument for implementing discussions between stakeholders with differing or even contradicting attitudes and interests. Due to a usually high local and social involvement and engagement of farmers in rural as well as peri-urban and urban areas (Suarsona, 2017; Lorleberg, 2009), such dialogue formats seem to be suitable for exchanging interests and finding ways for joint initiatives. Since cooperation at intercompany level is still weak (Feindt et al., 2019), it is thus recommendable to establish speed-dating formats specifically for actual representatives of the different stakeholder groups in order to support the process of building up cooperative structures between farmers, citizens, environmentalists and others.

Acknowledgements

The authors thank the all participants for their engagement in the dialogue format. Special thanks go to Christiane Wildraut, Carla Ollier and Lea Buzilowski for their eager support during the course of the project. Funding of the state ministry of North Rhine Westphalie for environment, agriculture, nature and consumer protection (MULNV) is gratefully acknowledged.

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