



# Coalition Formation and Polarisation in Group Discussions About Climate Change

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### **Abstract**

In a discussion about climate change a vegan might be seen as a deviant, someone whose opinions differs from the group norm. In this research we investigate how the discussion and the influence of a vegan deviant might change when there is another deviant in the conversation: a climate change sceptic. In a general sample a climate change sceptic might be seen as an anti-norm deviant, their opinion deviates in an undesirable direction from the group norm, while a vegan can be seen as a pro-norm deviant. Anti-norm deviants are judged more negatively than pro-norm deviants. This qualitative study combines social psychology and communication sciences, and uses conversation analysis to investigate whether or not there might be more coalition formation in conversations with a climate change sceptic, and how these coalitions are formed. We found that discussions take place on different levels depending on the condition. In conversations without a sceptic, discussion mainly took place on the level of who should take responsibility in solving climate change, while in the conversations with a sceptic the discussion mainly focussed on the importance of climate change and the role of humans in causing it. While the vegan is often not part of coalitions in the conversations without a sceptic, he/she is included in the coalitions when a climate change sceptic is present. This study gives insights in the influence of deviants in the climate debate that might be useful in shaping the manner of discussing climate change and veganism in everyday life.

*Keywords: climate change, coalitions, polarisation, deviance, veganism*

## **Coalition Formation and Polarisation in Group Discussions About Climate Change**

While people who express an opinion that is different than the one shared by the majority are often judged negatively, they are also the ones encouraging social change. Social interactions in small groups are crucial for changing norms and behaviours (Bolderdijk & Jans, 2021). A group member who endorses a different opinion within a group is called a deviant. Their opinion is different from the opinion shared by the majority of the group: the group norm (Jetten & Hornsey, 2014). Deviance from the group norm can go in either a positive or negative direction. Someone who has a deviant opinion that is negative and undesirable compared to the group norm is judged more negatively by the other group members, than someone whose opinion differs in a more social desirable direction. In this research we focus on how people react towards a deviant with a more extreme opinion than the normative group members, but in a direction that the rest of the group may be able to relate to, and how reactions towards and the influence of this pro-norm deviant change when someone reveals a deviant position from the opposing camp, one that might be harder for the group to identify with. In this qualitative study we investigate how the discussion changes when there are two deviants present in the conversation, and whether this transforms the situation into an intergroup context.

Deviance is defined as the violation of prescriptive norms about how members should think, feel, or act (Levine & Marques, 2016). Within small groups, reactions towards people with a deviant opinion are often negative and deviants can experience rejection by the rest of the group (Festinger, 1950 in Jans, et al., 2019). A deviant opinion within a group can thus lead to intragroup conflict. On the other hand, deviance is a driving force behind social change (Packer & Chasteen, 2010). Social change is often encouraged by minorities who

question the normative position (Moscovici, 1980), for example regarding norms and behaviours related to climate change (Bolderdijk & Jans, 2021).

Climate change is an important and timely topic, which is increasingly discussed in the media, politics and the public debate. An increasing majority is worried about climate change, but even though experts say that adopting a vegan diet is one of the most effective actions an individual can take in tackling climate change, vegans are still deviants in many groups. While eating less meat is becoming more common, still only 5-10 percent of people living in Western countries is vegetarian and about 2 percent follows a vegan diet (Paslakis, et al., 2020; Statista Research Department, 2022; Van Gelder, 2022; Wunsch, 2021). There are often negative associations and feelings surrounding people who follow a vegetarian diet, and vegetarians experience rejection (Minson & Monin, 2012; MacInnis & Hodson, 2017; Monin, et al., 2008; Cramwinckel et al., 2013; Weiper & Vonk, 2021). Vegetarians are seen as “moral do-gooders”, a minority group that makes morally different choices than the large majority and who form an implicit threat to a person’s self-view (Weiper & Vonk, 2021). In a discussion about climate change the opinion of someone who follows a vegetarian or vegan diet can be seen as deviating from the group norm. The current research focuses on what happens with the influence of a vegan and how reactions towards this person might differ, when there is another deviant within the group: someone who is sceptical about climate change.

In general, most people would agree about the existence of climate change and the role of humans in causing it. According to the European Social Survey, less than 7 percent of people believe climate change (probably) does not exist and 9 percent of the people who do not deny the existence of climate change believe that it is caused (mostly) by natural processes (Steg, 2018). Someone who is sceptical about climate change or the role of humans in causing it could also be seen as a deviant in the climate debate. When, in addition to a

vegan, a climate change sceptic is also part of the group the context changes from a group where one person does not adhere to the group norm, to an intergroup context with multiple dissenting opinions in which everyone has to choose a position within the debate. In this intergroup context, “opinion-based groups” can become more salient. These are groups in which a social identity is defined on the basis of a shared opinion (McGarty, et al., 2009; Bliuc, et al., 2007). A context of inter-group comparisons, where people are either pro- or anti a certain issue, fuels the formation of opinion-based groups (Bliuc, et al., 2007). Members of these groups share a similar opinion, but there are no restricted behaviours these people have to engage in, in order to pronounce they have this opinion and for them to be part of the opinion-based group. For example, people who believe it is important to tackle climate change may tend to refrain from eating meat, but social or psychological inclusion in the opinion-based group does not strictly require people to engage in this behaviour (Kurz et al., 2020). We expect that subgroups will be formed within the group discussion and that participants will express this by agreeing with or approving of the opinion of another group member, and by contrasting themselves from other group members. We define these subgroups as coalitions.

Deviation from the group norm can occur in a socially desirable or undesirable direction defined by the group (Stavrova et al., 2016). Pro-norm deviants express a deviating opinion in the direction of the group’s prescriptive norm, while anti-norm deviants go against the group norm (Abrams et al., 2000; Abrams et al., 2002). Both pro- and anti-norm deviants are seen as fitting less well to the group compared to a normative group member, but anti-norm deviants are seen as more atypical, conflict more with the group norm, and are judged more negatively by the rest of the group than pro-norm deviants. On top of that, individuals would rather defend a pro-norm deviant than an anti-norm deviant (Miller & Morrison, 2009 in Stavrova et al., 2016). When we presume that most people believe in the existence of

climate change and the responsibility of humans in this, a person who expresses doubts about the existence and the causes of climate change can be defined as an anti-norm deviant, while a vegan is defined as a pro-norm deviant.

In this study, we examine whether the larger distinction between the opinion of a climate change sceptic and the group norm might also be reflected in the way normative group members communicate with this deviant. Individuals tend to compare their own opinions to those of others (Festinger, 1954). When the opinion differences between one's own opinion and the opinion of another person in the group are too large, the individual will compare themselves less to the person holding this deviant opinion. The more the opinion of a deviant differs from the group norm, the more the opinions of the majority might seem alike. The majority of the group thus experiences that they all share the same opinion, and feel validated in their opinion as a result (Paulus, 2015). Based on these previous findings, we expect that when both a vegan and a climate change sceptic are part of the conversation, the vegan would become part of the majority, as the sceptic is likely to have a more deviating opinion, and might be seen as more distinct from the group norm.

Deviants threaten the reaching of consensus. People strive to have consensus with others (Festinger, 1954). Usually, individuals tend to avoid expressing extreme opinions within a group, as extreme opinions of members are often rejected. Depolarisation is a tactic that can be used to promote consensus. We are interested to see to what extent there might be differences in whether or not depolarisation is used in conversations where members express extreme opinions, and if this differs between conversations with and without a climate change sceptic.

### **The present study**

In this qualitative study we use conversation analysis to investigate whether and how coalitions are formed in discussions about climate change and veganism, and whether this

varies depending on the presence of a second deviant in the conversation, a climate change sceptic. As a deviant offers the possibility for polarisation and conflict in a group discussion, we investigate how a group reacts towards other members with a different opinion questioning the group's norm. This study combines the research fields of social psychology and communication sciences, linking attitudes, and the expression of these attitudes in a group context. The combination of these research fields could provide interesting and important insights on the influence of a deviant in group communication, and how the presence of another deviant with an opposing opinion can alter the discussion, and possibly with that the influence of the first deviant. It may also provide insights into the circumstances under which a deviant might be most influential within a group discussion. We will analyse a number of conversations of small group discussions about important societal topics, the importance of climate change, and how the problem of climate change might be mitigated. In each conversation, a confederate is present, who highlights the importance of climate change and who advocates for a vegan diet.

We will test a few hypotheses about the differences between conversations with only one or with two deviants, but our research mainly focusses on exploring how coalition formation occurs, which strategies group members use to indicate their agreement or disagreement with someone else's opinion, and to show their stance within the debate. Coalition formation is examined through the content of participants' opinions and the way in which they formulate, and introduce these opinions. Further, we look at whether the normative group directs their communication more towards one of the deviants than to the rest of the group. Lastly, we will investigate whether and how group members will attempt to depolarise and search for common ground in situations where opposing opinions are apparent.



H1: In discussions with a climate change sceptic, there is more coalition formation than in discussions without a climate change sceptic.

H2: In discussions with a climate change sceptic coalitions will be formed between normative group members and the vegan (confederate) against the climate change sceptic.

## **Method**

### **Design and procedure**

The current research is qualitative, in which we analyse audio clips of small online group discussions. For this study we use existing data from previous research by Koudenburg, Jans, and Jonker (submitted for publication). Each group consists of two to four participants and one confederate (out of four available confederates). In total, participants met up three times, but we only analysed the first two conversations. Each discussion took about 5-10 minutes. Participants could talk to each other through audio, but could not see each other visually. Before taking part in the conversation, each participant was assigned a name with which they had to introduce themselves to the rest of the group, and which would appear on the screen when that participant was speaking. The participants were either named Jupiter, Neptunus, Mercurius or Saturnus. The confederate (the vegan deviant) is always named Pluto. At the start of the first conversation, participants were informed that they were placed in a group because they have either very diverse or very similar values and ideas. This manipulation was part of the original study, but in the current analyses we did not distinguish between these groups, because we focused on the differences between the conversations with and without a climate change sceptic. In the first conversation, participants had to talk about societal topics they found important and believed should be on the government agenda. In the second conversation, the participants were instructed to discuss the relative importance of the topic of climate change, and ways in which the problem of climate change could be solved. In the first conversation the confederate focused on the topic of climate change, and emphasised

the responsibility of the individual in tackling this problem, including the importance of a vegan diet. In the second conversation the confederate again talked about the importance of climate change, and about the impact an individual can have in solving this problem by adopting a vegan diet.

## **Participants**

Participants were recruited via Prolific and Panel Inzicht for monetary compensation. All participants were inhabitants of the Netherlands and were fluent in Dutch. They were not acquainted with each other beforehand. Based on a pre-screening, only participants who scored below 5 on a 7-point scale assessing past vegan behaviour were invited to take part in the longitudinal conversation study, to ensure that veganism would be a deviant behaviour in the group context. We analysed 18 conversations of 10 groups with 28 participants in total. For two groups, we only analysed one conversation, as we only used the conversations where the confederate mentions veganism. We selected four groups with only a vegan deviant and six groups in which a potential climate change sceptic was present as a naturally occurring second deviant. After analysing we concluded that there was a climate change sceptic present in five groups. In four of these groups this scepticism was only mentioned in one out of two conversations: two times in the first and two times in the second conversation. The fifth group did include a sceptic, but they only clearly expressed their climate change scepticism later on in both conversations (which part we did not analyse anymore). We did still label this first conversation as climate change scepticism, because their influence on the group is already visible in the beginning of the conversation. Further selection criteria include: participation of the group in all three conversations (as we only later decided to analyse use just two conversations), a group size of at least four people including the confederate, and the same number of participants in week one and two. Two groups with a climate change sceptic did not completely meet all the selection criteria, as both groups only consisted of three, instead

of four, people in the second conversation. This was not problematic, however, because the groups still included two participants besides the confederate.

### **Definition of variables**

We analysed the conversations to see how reactions towards, and the influence of a vegan deviant may change when a climate change sceptic is present as a second deviant in the conversation. We analysed the conversations based on the Toulmin model (Schellens et al., 1994). This is a format that breaks argumentation down into six components. In our analysis we only use a claim (opinion) and grounds (argument). We define a claim as an opinion, so it is easier to describe different stances participants might have regarding a certain topic. From a social psychological perspective it is important to study how participants communicate with each other in a discussion, how conflict and polarisation occur, and how groups might come back together by forming coalitions or by reaching consensus. Further, we examine which themes are being discussed, how these themes relate to each other, and what participants' opinions are regarding these themes. We investigated how a participant contributes to the discussion, either by expressing an opinion or by giving an argument supporting an opinion previously expressed. On top of that, we looked at whether a participant directs their communication towards someone with an opposing opinion or someone with a similar point of view, and whether disagreement with someone is expressed implicitly or explicitly. Lastly, we investigated if, and how consensus, was reached by the whole group or by part of the group. Depolarisation could be used as a means to promote group consensus. We define depolarisation as individual acts intended to diminish conflict, and to find common ground.

### **Analysis**

To analyse the conversations we first made transcripts of the audio conversations. The transcript always begins when Pluto introduces the topic of veganism (see excerpt 1).

**Excerpt 1.**

*Pluto introduces the topic of veganism (group 41, conversation 1).*

- 1 Pluto: I may have something that I personally find most important and
- 2 I was wondering if I might mention that?
- 3 Namely, I think the most important thing to look at right now is the climate,
- 4 because I think that the icecaps are melting too fast, the Co2 increase
- 5 is too high, the rising temperatures are too high and I think
- 6 that the government should really focus on that. And I also
- 7 think that we ourselves should really focus on it. So since I started
- 8 looking into it more, I have started to eat vegan, to make sure that I do
- 9 my part. Yeah, I do not know what you think about that?

The content of Pluto's introduction is standardised across conversations, but the form differs. The confederates were only informed about Pluto's stance in the debate, and the focus that should be placed on talking about climate change, individual responsibility, and veganism, but had freedom in how they would verbalise this opinion. They were also instructed to not introduce the topics of climate change and veganism right away, but to first wait and see how the conversation would unfold. The formulation of Pluto's opinion thus also depends on the content previously discussed in the conversation, for example whether this

topic still needed to be introduced by Pluto or whether another participant had already mentioned climate change as an important topic (see excerpt 2).

**Excerpt 2.**

*Pluto reacts to another participant who introduced the topic of climate change (group 3, conversation 1).*

- 1 Pluto: Yes, I completely agree. I think that the government could
- 2 help with that, but that we as individuals can also do a lot about it.
- 3 For example, I am vegan and I think if a lot of people would do that,
- 4 we could solve a really big problem.

Pluto sometimes also links climate change to another societal topic that is being discussed and then continues by introducing veganism (see excerpts 3 and 4).

**Excerpt 3.**

*Pluto introduces the topics of climate change and veganism in relation to the covid crisis (group 44, conversation 1).*

1 Pluto: Yes, otherwise I can bring up another point that has not  
2 been mentioned yet. I do agree with this, but one thing I have not  
3 heard yet is the climate. And also, when we talk about the covid crisis,  
4 that stems to a large extent from the way we deal with nature. And  
5 I actually think that the climate is perhaps the biggest theme right  
6 now, or the most important theme. But I think that we might also  
7 be able to do something about it ourselves, quite apart from a  
8 government agenda. I eat vegan, for example. That really helps  
9 a lot already. So I think there is also a very important role for  
10 the individual.

**Excerpt 4.**

*Pluto introduces the topics of climate change and veganism in relation to public health (group 34, conversation 2).*

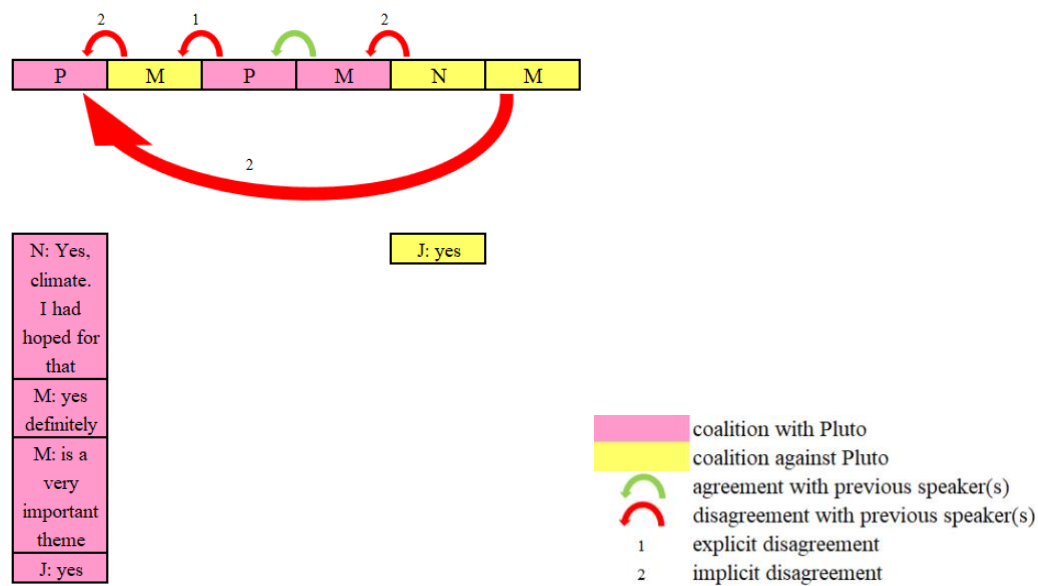
1 Pluto: I wanted to say that climate is of course also related to  
2 public health because, for example, if more and more flue gases  
3 are released into the air, it will also make us sicker. In the big cities  
4 of China you can see that. Respiratory infections, or whatever, are  
5 more common there, caused by human action. And I think that if  
6 we all do our part by, for example, eating less meat or by eating  
7 vegan like I do, it can already help a lot.

Following Pluto's introduction of veganism, we then noted down up to five speaking turns (depending on the amount of time still left for the discussion, this could be less). We define a speaking turn as someone formulating an opinion, or building on an opinion or argument previously formed by another person. Minimal responses, such as "yes", or "I agree", are not considered speaking turns, but are included in the transcript.

To measure the different concepts of interest, we coded these transcripts, to form a structural and visual representation of each conversation. Each visual representation focuses on a different aspect of the conversation. The first coding presents the extent of agreement and disagreement within the group. The coding also shows the direction of communication (so, at which person a participant directs their opinion or argument), and the formation of coalitions between participants. In figure 1 an example of coding 1 is given. Each box with a first letter of the name of one of the participants represents a speaking turn. For each speaking turn the minimal responses given by the other participants are also noted down. The pink boxes reflect Pluto's introduction and agreement with this opinion of Pluto. The yellow boxes reflect disagreement with the first opinion of Pluto. The coloured arrows represent agreement or disagreement, and the number besides the red arrow reflects whether the disagreement is expressed implicitly or explicitly. The green arrow always represents explicit agreement.

**Figure 1.**

*An example of coding 1 (group 26, conversation 1).*

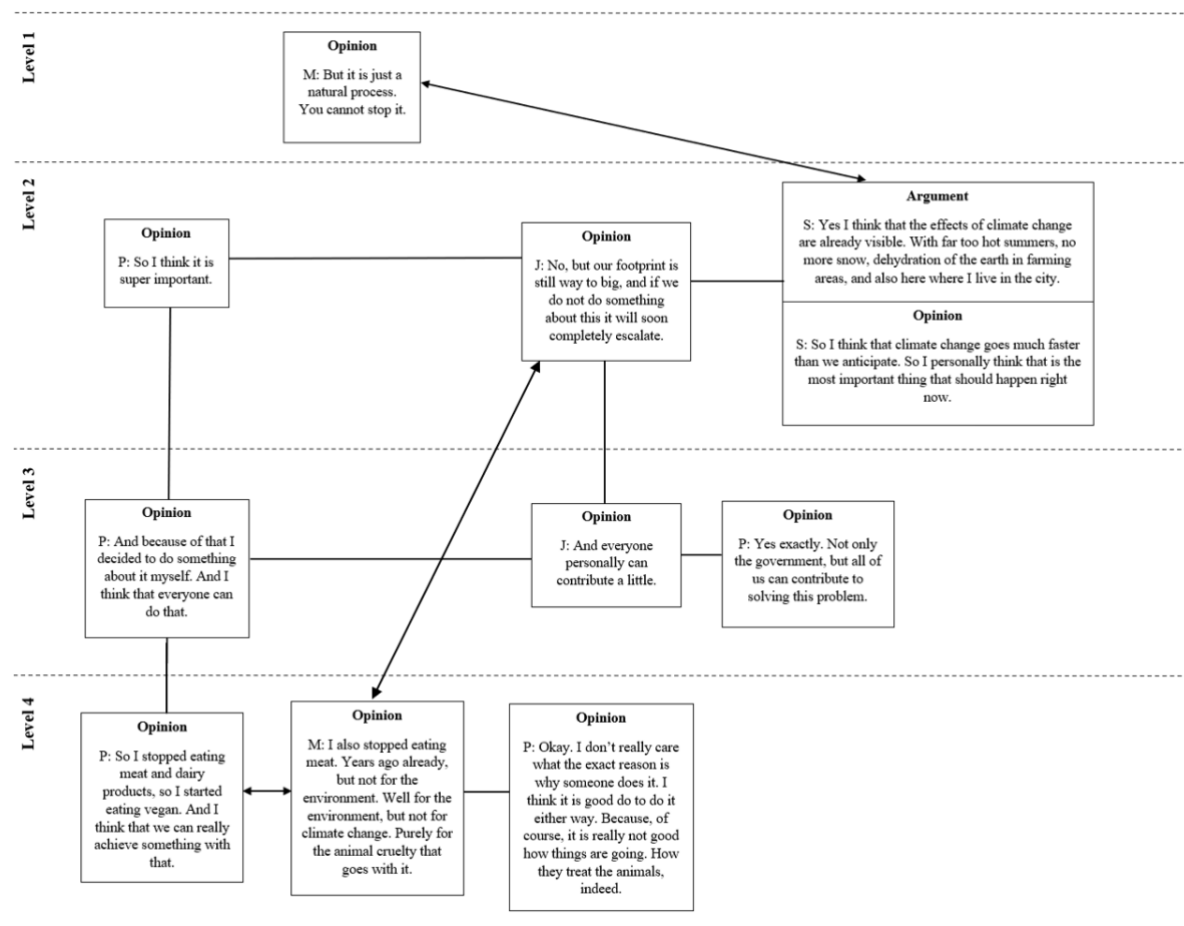


A second coding focuses on how many opinions, and arguments supporting an opinion are offered in a conversation, and by who. The third coding presents the content of these opinions and arguments. As we mainly used the first and third type of coding to draw conclusions from the conversation analyses, we will not further explain the type 2 coding. Figure 2 shows an example of coding 3. The dotted lines separate the different levels on which a discussion can take place. Boxes connected with a horizontal line represent agreement, while boxes connected with an arrow represent disagreement in opinions, thus possible conflict. Boxes connected with vertical lines represent a participant navigating over different levels within their speaking turn. An oblique arrow represents a participant disagreeing with a person on another level, and navigating the conversation to a different level than the one the previous speaker spoke on. By displaying the opinions and arguments like this, specifically related to a certain level, instead of in the form of an excerpt, we can see more clearly on which levels participants do or do not agree with each other, and how opinions and arguments relate to each other on a certain level.



**Figure 2.**

*An example of coding 3 (group 41, conversation 2).*



Participants can have different opinions regarding certain themes that are being discussed. An argument can support an opinion that has previously been expressed. The difference between an opinion and an argument is that the first reflects someone's attitude regarding a certain topic, while the latter explains why they have this viewpoint. An argument often contains more factual information, such as scientific findings and numbers, and can be used to persuade others of an opinion. Figure 3 shows an example of a participant expressing their opinion, and supporting this opinion by giving an argument in favour.

**Figure 3.**

*The expression of an opinion and a supporting argument (group 10, conversation 1).*

<p style="text-align: center;"><b>Opinion</b></p> <p>S: I do not agree with this at all. I think it is a bit of a weak argument to not have to do so much yourself and first look at multinationals. I think it should be a combination of both. It is both multinationals and our country.</p>
<p style="text-align: center;"><b>Argument</b></p> <p>S: It does not really matter that we are not that big of a country, as our personal footprint is for example three times as large as the earth's raw material. So we as individuals, especially in a western country like the Netherlands, can certainly make a substantial contribution to climate solutions.</p>

## Results

### Hierarchical discussion

The first thing we noticed when analysing the conversations is that a discussion can have a hierarchical form and can consist of different levels on which participants agree or disagree with each other about the topic of climate change. For example, the discussion can start on a more general level on which participants find consensus, but on lower levels where opinions get more specific there might be less agreement and more diversity in opinions. In the analysed conversations we can distinguish between four levels of discussion:

Level 1: The contribution of humans to climate change.

Level 2: The relative importance of climate change.

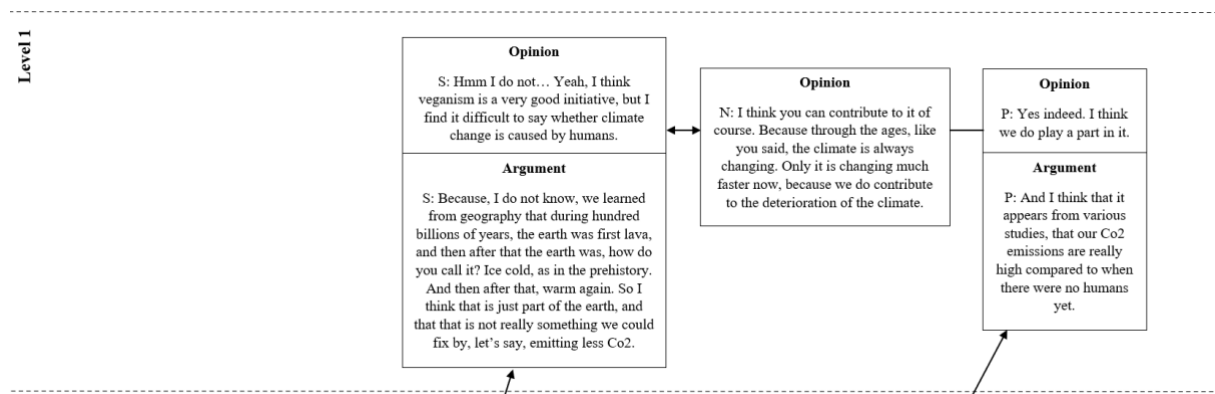
Level 3: The responsibility of individuals in tackling climate change.

Level 4: The relative importance of veganism.

The first, and highest level on which disagreement can take place considers belief in the contribution of humans to climate change. Figure 4 shows an example of how a discussion on this level takes shape. A speaking turn often includes opinions and arguments on themes that are related to more than one level.

**Figure 4.**

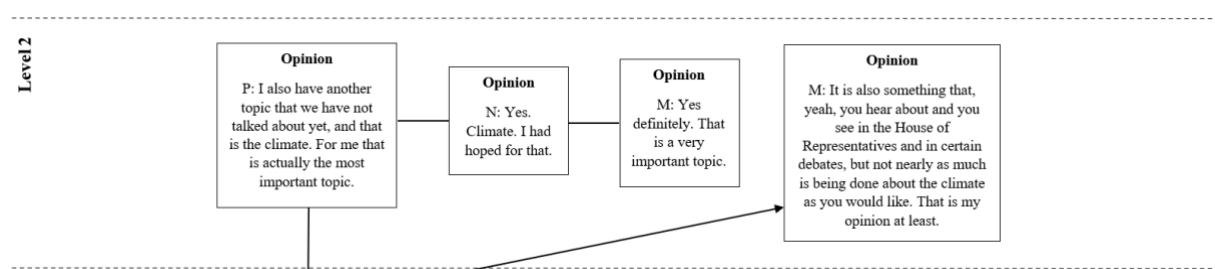
*A discussion on level 1 about the contribution of humans to climate change (group 34, conversation 1).*



The second level of discussion is about the importance of solving climate change compared to other societal topics. Figure 5 reflects an example of a discussion on this level.

**Figure 5.**

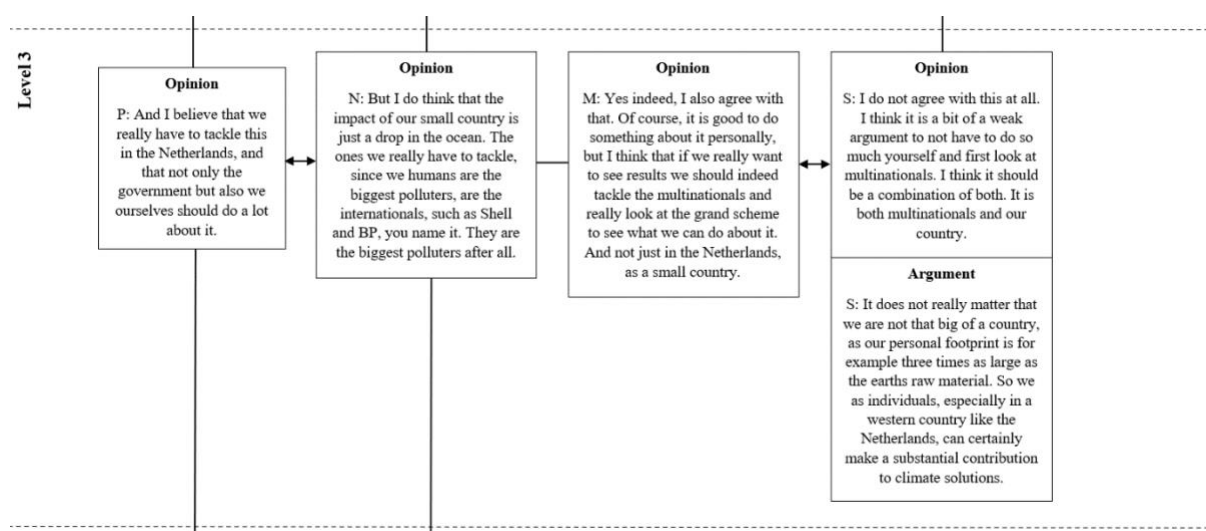
*A discussion on level 2 about the importance of climate change (group 26, conversation 1).*



The third level on which participants can disagree concerns the question of who should take responsibility in solving the problem of climate change. Figure 6 shows an example of a discussion on this level. Pluto states that he/she thinks that the individual can play an important role in tackling climate change, but others point out that not only the individual is responsible but also, or most importantly, the government and large corporations.

**Figure 6.**

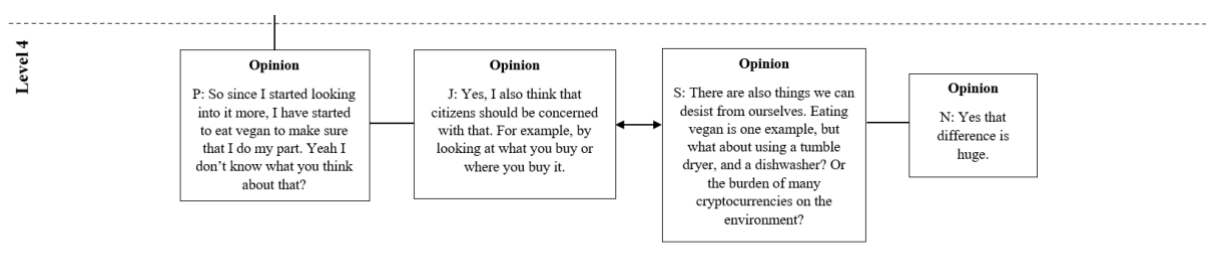
*A discussion on level 3 about the responsibility of tackling climate change (group 10, conversation 1).*



The final level we observed is that of the importance of veganism. Communicators may agree that individual's need to take action, but may have different opinions about which actions should be taken, and whether or not people should adopt a vegan diet. On this level Pluto talks about veganism. Sometimes participants also come up with other actions an individual can take, as we can see in figure 7.

**Figure 7.**

*A discussion on level 4 about the importance of veganism (group 41, conversation 1).*



Participants can navigate over different levels, for example, by starting with a broader opinion on a higher level about the importance of climate change, and then making their opinion more specific by moving to a lower level, talking about who should take responsibility in tackling climate change. This navigation can also happen the other way around, by moving up from a lower, more specific level to a higher, more general level. It seems that only when participants all agree or reach consensus on a certain level, they move the conversation to a lower level. For example, when participants agree that it is important to tackle climate change, they move their discussion towards the lower level, where they talk about whether or not the individual should take responsibility in tackling climate change. When opinions differ on this level, they first focus on talking about the responsibility of the individual versus the government and large corporations, and try to resolve the inconsistency of opinions by trying to persuade the others before moving on to the next level. The discussion is stuck on the level where members disagree, and only moves forward when this disagreement does not exist or is overcome.

In most conversations, participants do not react to Pluto's idea of following a vegan diet, but rather only talk about the influence of an individual or suggest a different way of taking individual action (see excerpt 5). A possible explanation of this might be that participants feel that they do not agree on this topic, but rather than revealing this disagreement, they emphasize their consensus on a higher level: in this case, the agreement that climate change is an important topic and that individuals should take action.

Alternatively, they might also give a reason for not being vegan by suggesting that we could take different actions to solve the problem (see excerpt 5), or that the problem needs to be solved on a different level, for example, not by individuals but by the government and large companies (see figure 6 above).

#### **Excerpt 5.**

*Avoiding the topic of veganism and suggesting a different way of taking action (group 26, conversation 1).*

- 1 Mercurius: But yeah what could we do? Around me I see that people
- 2 travel much more frequently by car than by public transport. Which I
- 3 could somehow understand, as public transport is not really affordable
- 4 for certain people. That is an issue that I would like to have discussed
- 5 myself.

#### **Themes**

On each level participants introduce different themes that fit the topic discussed on this level. The theme discussed on the first level is the contribution of humans to climate change. In one conversation, distrust in climate change science is also mentioned, and in

another conversation, science related to the origins of the covid virus is being questioned. The second level encompasses the importance of climate change, also in relation to other societal topics, such as the covid crisis, and employment. On the third level regarding the responsibility of tackling climate change, the most discussed themes include the role of the individual or of large companies and the government in tackling climate change. In a few conversations the influence of factory farming is also mentioned, and some participants highlight that the Netherlands, as a small country, only has little influence in solving the problem of climate change compared to larger countries, such as China. The lowest level includes the topic of veganism. In some conversations participants also mention other actions an individual can take.

**Table 1.**

*Different themes discussed per level of discussion.*

<b>Level of discussion</b>	<b>Discussed themes</b>
1. The contribution of humans to climate change	Contribution of humans to climate change Trust in climate change science Trust in covid virus science
2. The importance of climate change	Climate change Covid virus Health care Employment Education Discrimination

3. The responsibility of individuals in tackling climate change	The influence of the individual The influence of large companies The influence of the government The influence of the Netherlands The influence of factory farming
4. The importance of veganism	The impact of a vegan diet on the climate The difficulty of engaging people to change their diet Shopping local Reducing plastic waste Using public transport Limiting the use of a dishwashing machine Limiting the use of a tumble dryer

### Opinions and arguments

Participants can have opinions regarding the different themes per level. By expressing their opinion a participant shows their stance in a debate about a certain theme. We examined the number of different opinions and supporting arguments formed per conversation. We found that most participants only express their opinion, and often do not back this up with an argument. In total we found that there are four conversations in which only opinions are being expressed. In other conversations often only one or two arguments are mentioned, and almost always in relation to a participant's own opinion. This argument might, however, still also indirectly give support for the opinions of participants who have the same stance in the debate. We only found one conversation in which a participant builds on another persons' opinion by giving an argument in favour.



## Coalitions

A subgroup results from participants taking a stance by either agreeing or disagreeing with the opinions previously expressed. Based on the data, we identified two different forms of coalitions that differed in the direction of communication. The first one was a coalition based on explicit agreement with another participant or participants. Coalitions based on agreement are formed when a participant expresses their agreement with an opinion or argument of one or more participants by giving arguments in favour, or by giving positive minimal responses, such as “Yes”, “I agree”, or “Indeed” (see excerpt 6). Participants find an ally based on their agreement. When participants form a coalition based on agreement, they have consensus with each other on a certain theme.

### Excerpt 6.

*A coalition based on agreement (group 34, conversation 2).*

- 1 Neptunus: Yes, public health is important in connection with climate. And
- 2 yes, by the way, climate is important in connection with public health,
- 3 that is true. But whether it helps to become vegan... Yeah, I think we
- 4 do still need everything.
- 5 Saturnus: I agree with that.

The second type of coalition we identified is one based on disagreement with one or more participants. Coalitions based on disagreement encompass participants who direct their communication towards the person they disagree with, instead of the other participant(s) they might agree with. For example, a coalition then exists between two participants who both disagree with the opinion of a third person, making them seem, and probably also feel

connected. Participants find an ally in each other based on their disagreement with one or more other participants (see excerpt 7).

### **Excerpt 7.**

*A coalition based on disagreement (group 1, conversation 2).*

- 1 Pluto: I do think that everyone should contribute to the solution.
- 2 So we should not just hold the government accountable, but yeah
- 3 for example what I do, eating vegan. Yeah, I think if
- 4 everyone would do that it would really help a lot, and then the
- 5 government could support us in that.
- 6 Saturnus: Frankly, I do think that the government also plays
- 7 a role in this. I mean we can all start to eat vegan, but then
- 8 there is a company like Tata Steel that emits I do not know
- 9 how much waste. There is not much we can do about that.
- 10 (...)
- 11 Jupiter: Simply putted, when we look at the biggest impacts
- 12 I think that... You know, it is nice if we can do something
- 13 as individuals, but it is still often the industry.
- 14 (...)

### **Formulation**

A participant can implicitly or explicitly disagree with a participant.

**Implicit disagreement.** When analysing the data we found that participants can show implicit disagreement in different ways. In excerpt 8 we see that the participant expresses

implicit disagreement by avoiding talking about a topic mentioned by another group member as they move the conversation in another direction, in this case by introducing a new opinion.

**Excerpt 8.**

*An example of implicit disagreement by Neptunus (group 3, conversation 1).*

- 1 Pluto: Yes, I completely agree. I also think that the government
- 2 could help with that, but that we as individuals can also do a lot
- 3 about it. I eat vegan, for example, and I think that if a lot of people
- 4 would do that, we could already solve a really big problem.
- 5 Neptunus: Yes, I was thinking about energy and if we, for example,
- 6 should close a coal-fired power station.
- 7 (...)

Excerpt 9 shows another way in which implicit disagreement is expressed, by not explicitly saying they think it is a bad idea, but making clear they would not participate in a certain behaviour themselves.

**Excerpt 9.**

*An example of implicit disagreement by Mercurius (group 34, conversation 2).*

- 1 Pluto: And I think that also even if people start eating less meat,
- 2 that could make a really big difference in the meat consumption.
- 3 Neptunus: Hmhm, yes that is true. I do agree with that, but that is
- 4 also because I do not eat meat myself. So I do not know if I can be
- 5 objective enough.
- 6 Mercurius: Then I will be the meat eater, haha.

**Explicit disagreement.** We found that participants can also explicitly disagree with another group member by clearly pronouncing their disagreement (see excerpt 10).

**Excerpt 10.**

*An example of explicit disagreement (group 53, conversation 2).*

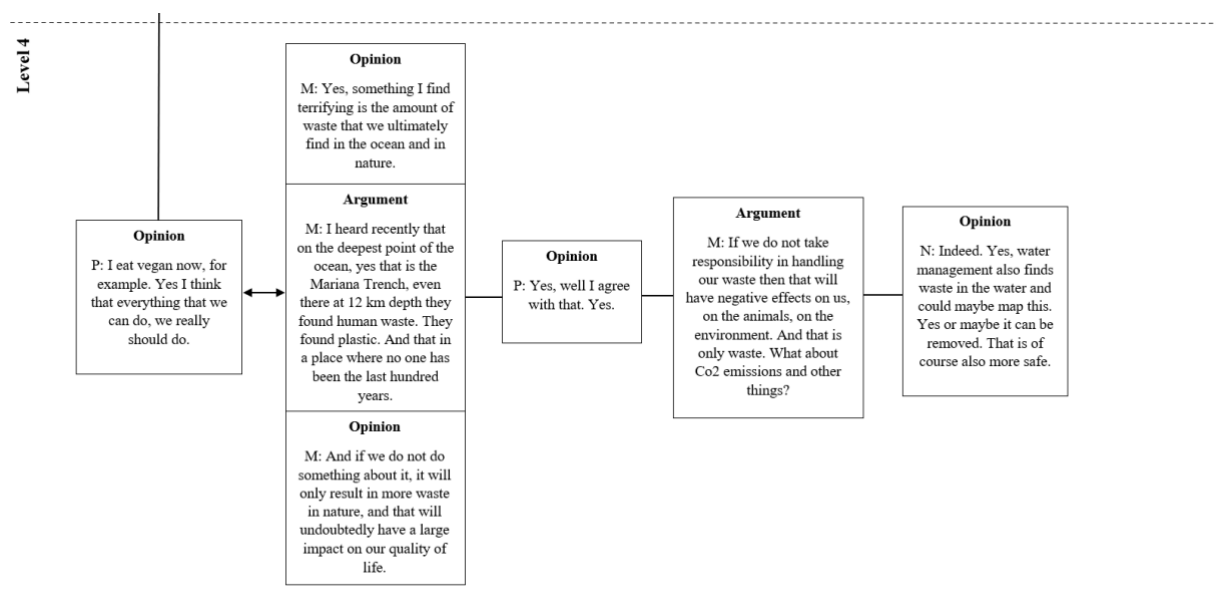
- 1 Neptunus: I absolutely disagree with that. I think that the topic itself
- 2 is important, and that we should do something about it, but that we are
- 3 often exaggerating what we do.
- 4 (...)

## Depolarisation

Based on the data, we conclude that consensus seems to depend on the level of discussion. Participants can have general consensus, for example about the contribution of humans to climate change or about the importance of climate change, but might not reach consensus on the level of responsibility of the individual in tackling climate change or on individual actions, specifically veganism. Depolarisation can be used as a strategy to reach a form of consensus within the group. We found that even though participants in a group might at first not agree with each other on a certain theme, they would sometimes still reach consensus later on, by for example altering their opinion or finding a theme or topic they did agree on. Depolarisation does not occur a lot, but it is used in some conversations. In all cases of depolarisation, the other participants support this notion by explicitly agreeing. In figure 8 we can see an example of how a new form of consensus is reached. First, the opinion of Pluto on veganism is ignored by the other participants, but they then all find agreement on the importance of reducing the littering of plastic waste.

**Figure 8.**

*Reaching consensus as a group (group 26, conversation 2).*



Excerpt 11 shows an example of another form of depolarisation, as participants highlight agreement of the group on a certain level or theme, while they might disagree on other levels or themes. A meta-perspective is chosen to zoom out, and look for consensus within the group on a higher, more general level.

**Excerpt 11.**

*Building consensus by highlighting agreement of the group (group 3, conversation 1).*

- 1 Mercurius: I also find it interesting what I hear, because we would
- 2 have different opinions, but I believe that all four of us agree that
- 3 climate change needs to be tackled. Perhaps we differ in the extent
- 4 to which this should be achieved via nuclear energy or in another way,
- 5 but I also think that it is a big challenge that awaits us, and indeed one
- 6 that cannot be solved so easily, and where we also have to look at other
- 7 possibilities.
- 8 (...)

Excerpt 12 shows another example of depolarisation by combining two opinions expressed earlier by the other participants about the importance of a vegan diet and the responsibility of the government.

**Excerpt 12.**

*Depolarisation by highlighting the importance of a vegan/vegetarian diet and the impact of government intervention (group 2, conversation 1).*

- 1 Jupiter: Something I do notice, because I also try to eat vegetarian at least
- 2 two to three times a week, but you do then really notice that the prices of
- 3 vegan or vegetarian food, or just fresh vegetables are so much higher.
- 4 And I do think that if you would tackle that, for example, you would
- 5 already make it a lot easier for people to make that choice in the first
- 6 place.

**Differences between conversations with and without a climate change sceptic**

**Level of discussion.** When analysing the data, we found that in most conversations without a climate change sceptic, participants quite easily agree that it is important to fix the problem of climate change. The importance of climate change can be seen as the highest level of the discussion hierarchy in these conversations. However, they have different opinions about how the problem of climate change should be fixed and who should take responsibility. Most discussion takes place on this level.

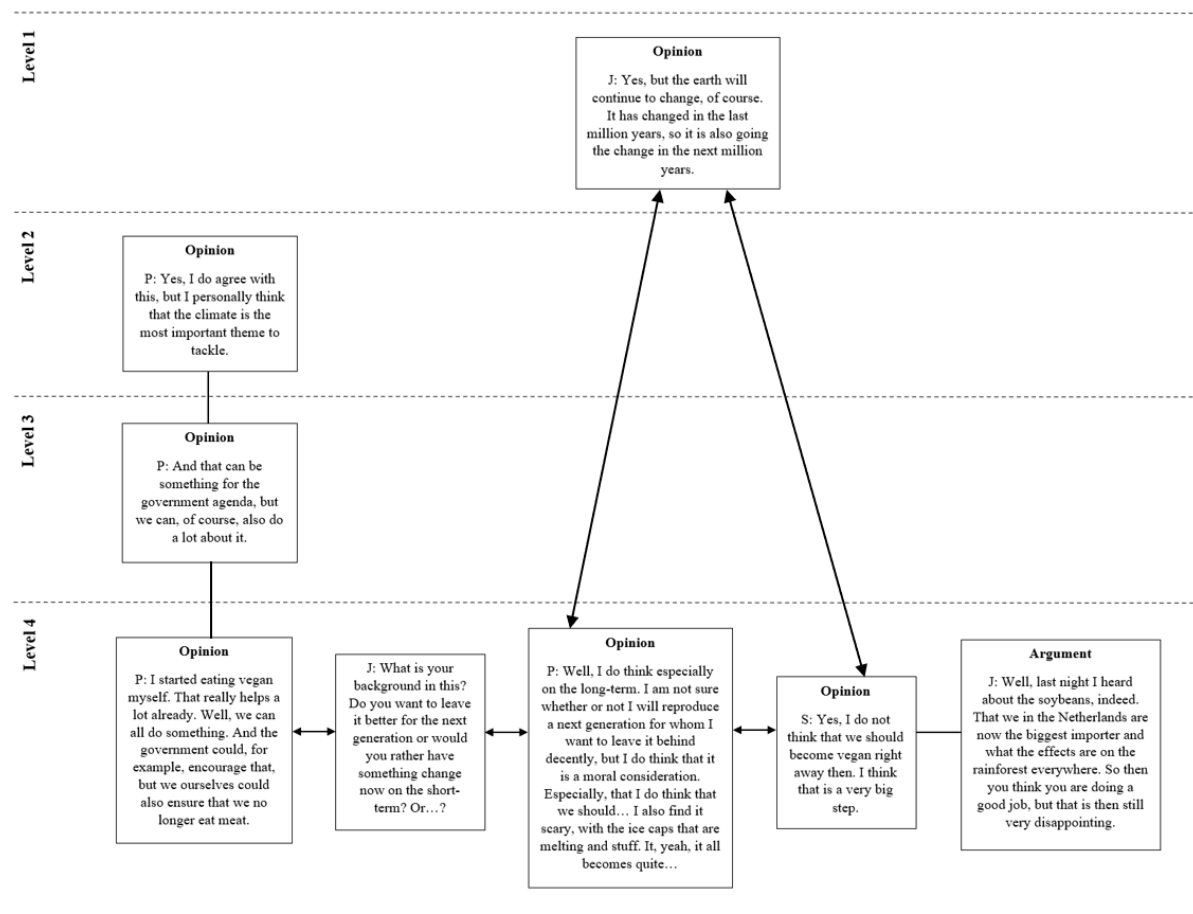
In the conversations where a climate change sceptic takes part in the discussion there is an extra level of debate added at the top: belief in the contribution of humans to climate change. Compared to the conversations without a climate change sceptic, where the role of the individual (and the importance of a vegan diet) were discussed mostly, it appears that in

the conversations with a sceptic this discussion shifts away from talking about possible solutions, towards discussing the importance of climate change and whether or not climate change is caused by humans. This shift only happens after the climate change sceptic introduces his/her opinion. Before this, the conversation is similar to the conversations without a sceptic. In one conversation with a climate change sceptic this is not the case, however, as there is no reaction towards their scepticism, and the discussion continues on the previous level of veganism (see figure 9). On this level the climate change sceptic then tries to form a coalition with another participant against Pluto by giving an argument supporting their opinion. The climate change sceptic does not further mention their scepticism. The same can be seen in another conversation, where first Pluto and another participant do react to the sceptics' contribution, but then later another participant ignores this scepticism entirely and moves the conversation back to a lower level. In both groups the sceptic introduces scepticism in the first conversation, and does not mention any scepticism about climate change in the following conversation. Perhaps the sceptic felt corrected by the rest of the group, as their opinion went unnoticed, and decided to alter their approach.



**Figure 9.**

*No reaction towards climate change scepticism (group 53, conversation 1).*



**Themes.** The themes discussed mostly depend on the condition and the level on which discussion mainly takes place. In conversations without a sceptic, the themes discussed mostly include the role of the individual or of large companies and the government. In conversations with a sceptic, the theme on which agreement or disagreement is expressed mostly relates to the contribution of humans to climate change.

The topic of veganism seems not very central in the conversations, as it is only mentioned shortly or not at all by other participants. In seven out of thirteen conversations without a climate change sceptic, veganism is mentioned by another participant. However, in three of these conversations it is only mentioned by one participant in the group, right after Pluto has introduced this topic, and the participant then quickly links it back to the higher-

level discussion about the role of the individual (see excerpt 13). Participants who speak later on do not relate back to Pluto's opinion about veganism. In one conversation, this is the case however, as one participant shortly mentions veganism right after Pluto has spoken (and then links it back to the role of the individual), while later another participant combines the opinions of Pluto and the other participants and elaborates more on veganism (see excerpt 12 above).

### **Excerpt 13.**

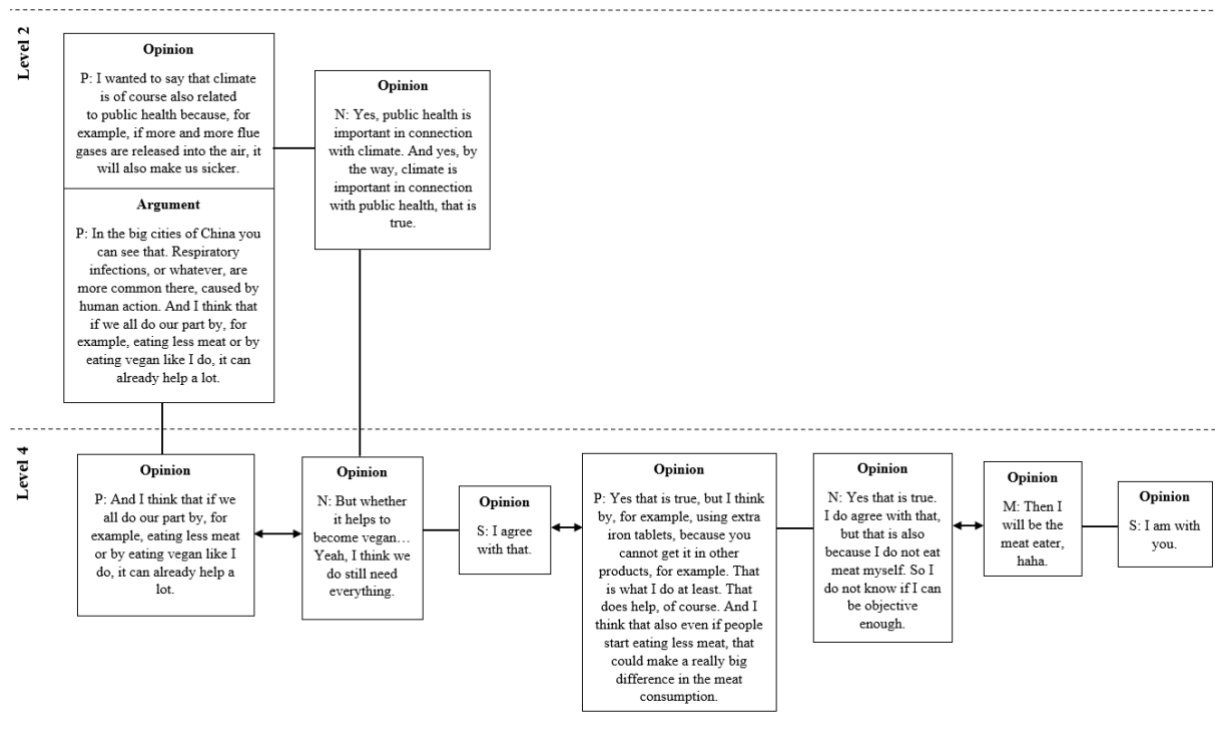
*Reaction to veganism (group 1, conversation 2).*

- 1 Pluto: I do think that everyone should contribute to the solution.
- 2 So we should not just hold the government accountable, but yeah
- 3 for example what I do, eating vegan. Yeah, I think if
- 4 everyone would do that it would really help a lot, and then the
- 5 government could support us in that.
- 6 Saturnus: Frankly, I do think that the government also plays
- 7 a role in this. I mean we can all start to eat vegan, but then
- 8 there is a company like Tata Steel that emits I do not know
- 9 how much waste. There is not much we can do about that.

We found two conversations that more extensively discuss vegetarianism and veganism, and one conversation where this is the only topic being discussed (see figure 10).

**Figure 10.**

*A whole conversation about the topic of veganism (group 34, conversation 2).*



Only in one conversation Pluto finds an ally in his/her opinion about veganism as an effective action for solving climate change (see excerpt 14).

**Excerpt 14.**

*Pluto finds an ally in the responsibility of the individual and the importance of a vegan diet (group 44, conversation 2).*

- 1       No, yes, no, I just wanted to give an example. I myself am also working  
2       on this in my daily life, because I have adjusted my diet: I have started  
3       eating vegan. But yes, you can also choose, for example, not to fly or  
4       a reduction in flights because of a pandemic to limit greenhouse gas  
5       emissions. But a diet is also a good way in that regard, for example.  
6       Saturnus: Yes, and I also feel that as a person, or as a citizen, I have  
7       less direct influence on the other issues like social affairs and public  
8       health. So I also feel more responsible for this issue, because I can make  
9       changes myself. For example, indeed, by changing your diet or by  
10      separating waste, or yeah, different things you can do that help the  
11      environment a bit.

In two conversations with a climate change sceptic, the sceptic reacts to veganism (right after Pluto introduces this) by saying they also are vegetarian (see figure 2 above) or think veganism is a good initiative (see figure 4 above), but then continue to state scepticism about the contribution of humans to climate change. After this scepticism is introduced, veganism is not further discussed. In one conversation a normative participant first reacts to Pluto's idea of veganism directly after this is mentioned and questions whether people would be willing to go vegan. After the climate change sceptic introduces their scepticism, the conversation continues to only focus on the level related to the contribution of humans to climate change. In one conversation there is no reaction to veganism at all. One conversation

is different, as there is no reaction towards the sceptics' contribution, and veganism takes a more central role in the conversation (see figure 9 above).

**Coalitions.** Based on our analysis, we found that Pluto often has a deviant opinion in the conversations without a climate change sceptic when talking about veganism, as in most conversations there is little to no reaction on this topic. This could be seen as implicit disagreement. It could, however, also be that Pluto's contribution about veganism goes unnoticed, as most discussions shift to a higher-level discussion about responsibility of the individual. When participants form a coalition it is in most cases one formed against Pluto, and is based on their belief that not only the individual, but in particular the government and large companies should be held responsible (see figure 6 above). Nevertheless, Pluto's position as a deviant is less evident on this level, since there is no clear coalition formation in half of the conversations.

In conversations with a climate change sceptic, we see that coalition formation based on agreement does not occur much more often than in conversations without a sceptic. However, coalition formation based on disagreement is more common in the conversations where a climate change sceptic is present. This finding partly supports our first hypothesis, as we expected that in discussions with a climate change sceptic, there would be more coalition formation than in discussions without a climate change sceptic.

We can also see that in the conversations without a sceptic, when there is coalition formation, coalitions are mostly formed without Pluto or against Pluto, whereas in the conversations with a sceptic, Pluto becomes part of the coalition and the coalitions are mostly formed against the sceptic. This also shows support for our second hypothesis, as the normative group forms a coalition including the vegan, against the climate change sceptic.

**Formulation.** In conversations without a climate change sceptic, there is no

significant difference between the use of implicit or explicit disagreement. In conversations with a climate change sceptic, there is more disagreement in general. In these conversations there is also relatively more explicit disagreement, than implicit disagreement. This explicit disagreement is expressed mostly by the climate change sceptic. It does not necessarily seem that normative group members more explicitly disagree with the climate change sceptic, compared to the vegan.

**Depolarisation.** Consensus seems to be related to the chosen level of discussion: when participants find consensus on a certain level they move the discussion to a deeper level, but when it does not seem possible to reach consensus on a certain level, participants move the discussion to a higher level on which consensus does exist. The shifting between levels seems to be a dynamic pattern in which participants consensualize by finding common ground. They only move the conversation to a lower level when this common ground has been found. The conversation seems to become stuck on the highest level on which agreement does not exist. In most conversations Pluto and the other normative group members agree that climate change is an important societal topic. In some conversations without a sceptic the whole group, including the confederate, reaches consensus on, for example, the importance of reducing plastic waste or on the impact large companies and factory farming have. Depolarisation only occurs in the conversations without a climate change sceptic. In conversations with a climate change sceptic, consensus by the whole group is never reached. In all of these conversations, however, consensus emerges between Pluto and all other participants about the contribution of humans to climate change.

## Discussion

In this study we investigated how people react to the topic of veganism in discussions about climate change, and how the discussion, and the influence of a vegan deviant changes

when a climate change sceptic is present in the conversation as a second deviant. We look at the consequences of this on the formation of coalitions and on how these coalitions might take shape. From our results it appears that a discussion about the topic of climate change can have a hierarchical form and consists of different levels on which participants can agree or disagree with each other. The discussion can start on a more general level on which participants find consensus, but on lower levels where opinions get more specific there might be less agreement and more diversity in opinions. People might, for example, agree with each other about the contribution of humans to climate change or the importance of tackling the problem of climate change, but differ in regards of who should take responsibility for this: the individual or the government, and large companies.

When we look at conversations with just one deviant, the vegan advocate, we see that most discussion takes place on the level regarding who should be responsible for solving climate change. As the confederate states that the individual should take responsibility, other participants believe that mainly the government and large companies should be held accountable, and that individual actions would have little impact. There is not much discussion about the actual topic of veganism. In most conversations, participants shift the focus away from this topic, after the confederate introduces it, by either ignoring it and continuing to talk about something related to another level or theme, or by linking it back to the higher-level discussion of who should take responsibility. In half of the conversations there is no clear coalition formation, but when there are coalitions they are mostly formed against Pluto, and are related to the level of who should take responsibility.

In the conversations with a second deviant, a climate change sceptic, most of the discussion takes place on the highest level of the hierarchy about belief in the contribution of humans to climate change. On this level, the rest of the group found consensus, making the

vegan confederate part of the coalition against the climate change sceptic. This finding might support the notion that a vegan can be seen as a pro-norm deviant, and a climate change sceptic as an anti-norm deviant. The difference between the normative opinion and the opinion of the pro-norm deviant is seen as smaller, and in a more socially desirable direction, making it more likely that the rest of the group will include the vegan as part of the majority. This is in line with research on re-categorization and the common ingroup identity model (Gaertner et al., 1993). An overarching category, or a new enemy may change group boundaries, and make previous outgroup members now belong to a new common ingroup, as they are reminded of their similarities. Members of the common ingroup feel similar to other members of this group and are more likely to compare themselves with these members.

The level of discussion seems to be related to whether or not there is consensus within the group. Only when all participants agree or reach consensus on a level, the discussion moves to a lower level. The discussion is fixed on the level on which there is no consensus and members have different opinions. The strategic function of navigating over the different levels thus seems to be to constantly keep searching for consensus regarding different levels and themes. People are motivated to create a shared reality, a correspondence in feelings and beliefs, when interacting with others (Higgins & Pittman, 2008; Higgins et al., 2021).

Participants try to overcome their differences in opinions by trying to persuade each other, or by finding some form of middle ground. Depolarisation happens in a few conversations, but it is interesting to see that it only happens in the conversations where the vegan advocate is the only deviant. It might be possible that in these conversations participants might still feel like there is a possibility to reach a form of consensus, whereas in the conversations with a climate change sceptic, opinion differences are too large to find a common ground. This can be



related to research of Festinger (1954), who states that when differences in opinions are too large people will no longer compare themselves to this person.

As for climate change scepticism, this research shows that expressing scepticism about the contribution of humans to climate change, shifts the conversation away from talking about possible solutions to solve this problem. Climate change scepticism might therefore hamper societal change regarding climate change, especially when other group members react to the arguments offered by the sceptic. Perhaps a more effective way to deal with climate change scepticism might be for others to just not react to it. We found one conversation where a climate change sceptic was completely ignored in their scepticism, and one in which the confederate and another participant first do interact with the sceptic, but another participant then ignores their scepticism and moves the conversation back to a lower level. After this, the sceptic did not mention their scepticism anymore. Silences or being ignored are implicit signs that tell a person their opinion is not being shared or accepted by the rest of the group (Koudenburg et al., 2013; Koudenburg et al., 2020). It might be possible that the sceptics corrected themselves to the group norm.

Lastly, the consequences of shifting the conversation to a higher level do not necessarily only have to be negative. Groups want to distinguish themselves from other outgroups, and they react most positively to a leader who encourages this distinction (Hogg et al., 2012; Knippenberg, 2011). If the vegan becomes part of the coalition, thus the ingroup, they could be seen as a prototypical leader, as they positively distinguish the ingroup from the climate change sceptic, the outgroup member. This can have positive outcomes for changing the group norms, because the vegan now has more influence in the direction of the group.

### **Limitations and future research**

This research is, to our knowledge, the first to explore how people interact with someone promoting veganism in a climate change discussion, and how the presence of a climate change sceptic might change the course of this debate. There are however some limitations to our study. One limitation of the study is that only the content, but not the form of Pluto's speaking turn was standardised. While this decision was made to promote natural flow of the conversation, it can also influence the direction a conversation takes. For example, Pluto linking the covid virus to climate change resulted in a debate about the causes of the virus instead of a conversation about climate change and possible solutions. Pluto also at times agrees with the input of others, for example the use of renewable energy or reducing plastic waste, while this moves the conversation away from talking further about veganism. Pluto's point may also have come across as believing that an individual should take responsibility in tackling climate change and that following a vegan diet is only used as an example of how an individual could take action. While it is not necessarily a problem for our analyses, as coalition formation can also be analysed at a higher level, it does make it difficult to conclude whether participants did not react to Pluto's idea of veganism because they wanted to avoid talking about it, or because they just viewed it as an example argument supporting Pluto's opinion about the responsibility of the individual.

This also relates to the objectivity of our measures. Even though we tried to perform the conversation analyses as objectively as possible by clearly defining the research variables, some measures might still be more subjective, for example whether or not someone actually agrees or disagrees with the confederate or another participant. When a participant gives other examples of actions that can be taken this could be seen as implicitly disagreeing with Pluto about veganism, but it does not necessarily have to be, as it might also show that this

participant finds it important to tackle climate change and just mentions additional ways in which this could be done. Future research could investigate if reactions might be different when a vegan advocate more clearly pronounces veganism as the main solution of solving climate change, instead of suggesting it as an example of individual action. Perhaps that would also give insight into which manner is more influential in convincing people to adopt a vegan diet.

For this study we only analysed the first two conversations out of three conversations in total. In each following conversation, climate change and ways to solve this problem became more central. The first conversation started broad, as participants talked about different societal topics they find important, while in the second conversation the relative importance of the topic of climate change is discussed. In the third conversation participants were instructed to discuss practical solutions that the government and citizens could implement to tackle climate change. We chose to only analyse the first two conversations, due to attrition, but also because we believed it would be most interesting to investigate how people would react when the confederate or another participant would introduce the topic of climate change solutions and veganism, rather than being instructed to talk about this. The first two conversations leave more space for participants to freely express their own opinions or show manners of avoiding certain topics. For future research it might be interesting to also analyse the third group conversation, as there is more space for the confederate to discuss the topic of veganism and for participants to react to this specific solution.

## **Conclusions and practical implications**

This research is one of the first to combine social psychology and communication sciences to explore the influence of a vegan deviant within a small group discussion, and how

this influence might be hindered by climate change scepticism. It lays the groundwork for future research that could explore the most influential way of convincing people to adopt a vegan diet in a conversational setting. When knowing the most influential way of discussing this theme, vegan advocates or organizations can use this to encourage discussions in everyday life, such as in class rooms or in the workplace, to stimulate people to adopt these diets. The study also shows the influence a climate change sceptic can have in inhibiting a discussion about possible solutions. Perhaps this insight can also be used to think about ways to deal with a climate change sceptic in a conversation, and how to limit their impact in taking the focus of the debate away from discussing possible solutions to solve the problem of climate change.

## References

- Abrams, D., Marques, J. M., Bown, N., & Henson, M. (2000). Pro-norm and anti-norm deviance within and between groups. *Journal of Personality and Social Psychology*, 78(5), 906–12. <http://dx.doi.org.proxy-ub.rug.nl/10.1037/0022-3514.78.5.906>.
- Abrams, D., Marques, J., Bown, N., & Dougill, M. (2002). Anti-Norm and Pro-Norm Deviance in the Bank and on the Campus: Two Experiments on Subjective Group Dynamics. *Group Processes & Intergroup Relations*, 5(2), 163–182. <https://doi.org/10.1177/1368430202005002922>.
- Bliuc, A.-M., McGarty, C., Reynolds, K., & Muntele, D. (2007). Opinion-based group membership as a predictor of commitment to political action. *European Journal of Social Psychology*, 37(1), 19–32. <https://doi.org/10.1002/ejsp.334>.
- Bolderdijk, J. W., & Cornelissen, G. (2022). "How do you know someone's vegan?" They won't always tell you. An empirical test of the do-gooder's dilemma. *Appetite*, 168. <https://doi.org/10.1016/j.appet.2021.105719>.
- Bolderwijk, J. W., & Jans, L. (2021). Minority influence in climate change mitigation. *Current Opinion in Psychology*, Vol. 42, 25-30. <https://doi.org/10.1016/j.copsyc.2021.02.005>.
- Cramwinckel, F. M., van Dijk, E., Scheepers, D., & van den Bos, K. (2013). The threat of moral refusers for one's self-concept and the protective function of physical cleansing. *Journal of Experimental Social Psychology*, 49(6), 1049–1058. <https://doi.org/10.1016/j.jesp.2013.07.009>.
- Festinger, L. (1950). Informal social communication. *Psychological Review*, 57(5), 271. <https://doi.org/10.1037/h0056932>.

Gaertner, S. L., Dovidio, J. F., Rust, M. C., Nier, J., Banker, B. S., Ward, C. M., et al. (1999).

*Reducing intergroup bias: Elements of intergroup cooperation.* *Journal of Personality and Social Psychology*, 76, 388-402.

Gelder, Van K. (2022, March 24). *Veganism and vegetarianism in the Netherlands and*

*Belgium – statistics & facts.* Statista. <https://www.statista.com/topics/9130/veganism-and-vegetarianism-in-the-netherlands-and-belgium/#dossierKeyfigures>. Retrieved on 06-06-2022.

Higgins, E. T., & Pittman, T. S. (2008). Motives of the human animal: comprehending, managing, and sharing inner states. *Annual Review of Psychology*, 59(1), 361–385.

<https://doi-org.proxy-ub.rug.nl/10.1146/annurev.psych.59.103006.093726>.

Higgins, E. T., Rossignac-Milon, M., & Echterhoff, G. (2021). Shared reality: from sharing-is-believing to merging minds. *Current Directions in Psychological Science*, 30(2),

103–110. <https://doi-org.proxy-ub.rug.nl/10.1177/0963721421992027>.

Hogg, M. A., van Knippenberg, D., & Rast, D. E. I. I. I. (2012). The social identity theory of leadership: theoretical origins, research findings, and conceptual developments.

*European Review of Social Psychology*, 23(1), 258–304. <https://doi-org.proxy-ub.rug.nl/10.1080/10463283.2012.741134>.

Jans, L., Koudenburg, N., Dillmann, J., Wichgers, L., Postmes, T., & den Hartigh, R. J. R.

(2019). Dynamic reactions to opinion deviance: the role of social identity formation. *Journal of Experimental Social Psychology*, 84.

<https://doi.org/10.1016/j.jesp.2019.04.001>.

Jetten, J., & Hornsey, M. J. (2014). Deviance and dissent in groups. *Annual Review of Psychology*, 65, 461–485. <https://doi.org/10.1146/annurev-psych-010213-115151>.

Koudenburg, N., Postmes, T., & Gordijn, E. H. (2013). Resounding silences: subtle norm regulation in everyday interactions. *Social Psychology Quarterly*, 76(3), 224–241.

- Koudenburg, N., Kannegieter, A., Postmes, T., & Kashima, Y. (2020). The subtle spreading of sexist norms. *Group Processes and Intergroup Relations*, (2020).  
<https://doi.org/10.1177/1368430220961838>.
- Kurz, T., Prosser, A. M. B., Rabinovich, A., & O'Neill, S. (2020). Could vegans and lycra cyclists be bad for the planet? Theorizing the role of moralized minority practice identities in processes of societal-level change. *Journal of Social Issues*, 76(1), 86–100. <https://doi.org/10.1111/josi.12366>.
- Levine, J. M., & Marques, J. M. (2016). Norm violators as threats and opportunities: the many faces of deviance in groups. *Group Processes and Intergroup Relations*, 19(5), 545–552. <https://doi.org/10.1177/1368430216657415>.
- MacInnis, C. C., & Hodson, G. (2017). It ain't easy eating greens: Evidence of bias toward vegetarians and vegans from both source and target. *Group Processes & Intergroup Relations*, 20(6), 721–744. <https://doi.org/10.1177/1368430215618253>.
- McGarty, C., Bliuc, A.-M., Thomas, E. F., & Bongiorno, R. (2009). Collective action as the material expression of opinion-based group membership. *Journal of Social Issues*, 65(4), 839–857. <https://doi.org/10.1111/j.1540-4560.2009.01627.x>.
- Miller, D. T., & Morrison, K. R. (2009). Expressing deviant opinions: Believing you are in the majority helps. *Journal of Experimental Social Psychology*, 45, 740–747. <https://doi.org/10.1016/j.jesp.2009.04.008>.
- Minson, J. A., & Monin, B. (2012). Do-gooder derogation: Disparaging morally motivated minorities to defuse anticipated reproach. *Social Psychological and Personality Science*, 3(2), 200–207. <https://doi.org/10.1177/1948550611415695>.
- Monin, B., Sawyer, P. J., & Marquez, M. J. (2008). The rejection of moral rebels: resenting those who do the right thing. *Journal of Personality and Social Psychology*, 95(1), 76–93. <https://doi.org/10.1037/0022-3514.95.1.76>.

- Moscovici, S. (1980). Toward a theory of conversion behaviour. *Adv Exp Soc Psychol*, 13 (1980), 209-239. [https://doi-org.proxy-ub.rug.nl/10.1016/S0065-2601\(08\)60133-1](https://doi-org.proxy-ub.rug.nl/10.1016/S0065-2601(08)60133-1).
- Paslakis, G., Richardson, C., Nöhre, M., Brähler, E., Holzapfel, C., Hilbert, A., & de Zwaan, M. (2020). Prevalence and psychopathology of vegetarians and vegans – Results from a representative survey in Germany. *Scientific Reports*, 10(1). <https://doi.org/10.1038/s41598-020-63910-y>.
- Paulus, P. B. (2015). *Psychology of Group Influence: second edition*, 200-201. Psychology Press.
- Schachter, S. (1951). Deviation, rejection, and communication. *Journal of Abnormal and Social Psychology*, 46(2), 190–207. <https://doi.org/10.1037/h0062326>.
- Schellens, P. J., Verhoeven, G., & Hoven, P. J. van den. (1994). *Argument en tegenargument: Een inleiding in de analyse en beoordeling van betogende teksten* (2nd edition, revised). Nijhoff.
- Statista Research Department (2022, January 28). *Veganism and vegetarianism in the United States – statistics & facts*. Statista. <https://www.statista.com/topics/3377/vegan-market/#dossierKeyfigures>. Retrieved on 06-06-2022.
- Stavrova, O., Koenke, V., & Schloesser, T. (2016). Overfulfilling the norm: the better-than-average effect in judgments of attitudes. *Social Psychology*, 47(5), 288–293.
- Steg, L. (2018). Limiting climate change requires research on climate action. *Nature Climate Change* 8, 759-761. <https://doi.org/10.1038/s41558-018-0267-x>.
- van Knippenberg, D. (2011). Embodying who we are: Leader group prototypicality and leadership effectiveness. *The Leadership Quarterly*, 22, 1078–1091. <https://doi-org.proxy-ub.rug.nl/10.1016/j.leaqua.2011.09.004>.



Weiper, M. L. V., & Vonk, R. (2021). A communicational approach to enhance open-mindedness towards meat-refusers. *Appetite*, 167.

<https://doi.org/10.1016/j.appet.2021.105602>.

Wunsch, N. (2021, June 22). *Share of vegans in Great Britain in 2020, by region*. Statista.

<https://www.statista.com/statistics/1065788/share-of-vegan-in-great-britain-by-region/>. Retrieved on 06-06-2022.