It’s moral: judgments in everyday life

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“He draws the motivations of his moral attitude from within the character which he has given himself and from within the universe which is its correlative.”

- Simone de Beauvoir, The Ethics of Ambiguity

Abstract

Moral judgments play a major role in everyday social interactions. Due to their relevance for human cognition and behavior, they have been a central object of research for centuries. However, previous studies rarely considered everyday interactions, focused almost exclusively on morally reprehensible behavior and only occasionally included relevant person characteristics. Therefore, the aim of this thesis was to use a person-centered approach and behavior that is close to real life to investigate the influences of emotion and person characteristics in moral judgments. In Study 1, a large set of morally harmful, helpful, and neutral everyday scenarios were designed and validated. Study 2 investigated how participants judge moral and neutral behavior of an agent towards another person and how this judgment is influenced by their person-dependent characteristics (i.e., their political orientation, empathy, and gender). In Study 3, conservative and progressive participants were preselected before taking part in an EEG study. It was examined whether neural responses towards and the likeability of moral agents vary based on the participants' political orientation and the agents' actions as well as their gender. Study 4 examined even more realistic scenarios based on actual events during the corona pandemic. Over the time course of four months, we investigated how German and Italian participants judge moral dilemmas and how these judgments are influenced by participants' fear and age. In Study 5, a German questionnaire of political orientation was validated with the aim of creating a reliable and culturally appropriate tool to investigate the influence of political orientation in moral judgments. Overall, the results indicate that emotion and person characteristics play a vital role in moral judgments. In addition, the validated scenarios as well as the newly developed German questionnaire of political orientation provide valuable tools for future research of morality.

Keywords: Moral judgments, moral scenarios, emotion, person characteristics, political orientation

Zusammenfassung

Moralische Urteile spielen eine wichtige Rolle in alltäglichen sozialen Interaktionen. Aufgrund ihrer Relevanz für menschliche Kognition und Verhalten sind sie bereits seit Jahrhunderten zentraler Forschungsgegenstand. Allerdings berücksichtigten bisherige Studien kaum alltägliche Interaktionen, konzentrierten sich fast ausschließlich auf moralisch verwerfliches Verhalten und bezogen nur selten relevante Personenmerkmale ein. Ziel dieser Arbeit war es daher, mit einem personenzentrierten Ansatz und anhand alltagsnaher Verhaltensweisen den Einfluss von Emotionen und Personenmerkmalen auf moralische Urteile zu untersuchen. In Studie 1 wurde eine große Anzahl moralisch schädlicher, hilfreicher und neutraler Alltagsszenarien entworfen und validiert. In Studie 2 wurde untersucht, wie Versuchspersonen moralisches sowie neutrales Verhalten eines Akteurs/einer Akteurin gegenüber einer anderen Person beurteilen und wie dieses Urteil von ihren Personenmerkmalen (d. h. ihrer politischen Orientierung, Empathie und ihrem Geschlecht) beeinflusst wird. In Studie 3 wurden konservative und progressive Versuchspersonen vorausgewählt, bevor sie an einer EEG-Studie teilnahmen. Es wurde untersucht, ob die neuronalen Reaktionen auf und die Sympathie für moralische Akteur*innen in Abhängigkeit der politischen Orientierung der Versuchspersonen sowie der Taten und des Geschlechts der Akteur*innen variieren. Studie 4 nutzte noch realistischere Szenarien anhand tatsächlicher Begebenheiten während der Corona-Pandemie. Über einen Zeitraum von vier Monaten haben wir haben untersucht, wie deutsche und italienische Versuchspersonen moralische Dilemmas beurteilen und wie diese Urteile von Angst und Alter der Versuchspersonen beeinflusst werden. In Studie 5 wurde ein deutscher Fragebogen zur politischen Orientierung erstellt und validiert, mit dem Ziel, ein zuverlässiges und kulturell angemessenes Instrument zur Untersuchung des Einflusses der politischen Orientierung auf moralische Urteile zur Verfügung zu haben. Insgesamt deuten die Ergebnisse darauf hin, dass Emotionen und Personenmerkmale eine wichtige Rolle für moralische Urteile spielen. Darüber hinaus stellen die validierten Szenarien sowie der neu entwickelte deutsche Fragebogen zur politischen Orientierung wertvolle Instrumente für die zukünftige Moralforschung dar.

Schlagwörter: Moralische Urteile, moralische Szenarien, Emotionen, Personenmerkmale, politische Einstellung

Contents

General Introduction

Moral judgments have fascinated scientists around the world for centuries, and for good reason: They are part of everyday social interactions and thereby strongly affect every human's life. For instance, in the current corona pandemic, decisions have to be made about whom to prioritize for emergency care or access to vaccinations. These global and far-reaching decisions implicate individual, small scale decisions and the judgments of people who make them. For instance, a person might use little lies to get early access to a corona vaccination, while another person might give up their prioritized position to medical treatment for someone who is worse off. Such everyday situations have hardly been considered in moral research (Hofmann et al., 2014). In addition, most of the previous research has focused on behavior detached from the person who commits it (Hester & Gray, 2020). For a holistic account to morality it is important to consider different levels of behavior and experience, from the neural level to the human being as part of a society that is comprised of individuals with different personalities and ideologies.

The aim of this thesis was to investigate judgments that a perceiver makes about a morally significant event (i.e., an action or decision, Malle, 2021). First, it was investigated how moral judgments are influenced by intuitions and person dependent characteristics in settings that are relatable and close to real life. Second, to account for methodological shortcomings of previous research, it was emphasized on the development and validation of fitting material that captures moral behavior as close as possible to everyday life. A first study was conducted to develop and psychometrically validate fitting moral scenarios (Study 1). To understand how moral judgments are affected by the characteristics of the moral information itself (i.e., their valence) as well as person-dependent variables (i.e., personality characteristics, timely and local proximity to an event) three further studies were carried out under laboratory and online conditions by using neuroscientific and behavioral approaches. More specifically, one study investigated how moral judgments are influenced by the moral valence of the

behavior as well as empathy, gender, and the political orientation of the participant (Study 2), a second study investigated neural reactions and explicit moral judgments towards moral people (Study 3), and in a third study we investigated moral dilemmas that have great parallels to the corona pandemic in a cross-cultural and longitudinal study design (Study 4). Research has shown that a person's political orientation can alter their neural and behavioral responses to moral behavior (e.g., Graham et al., 2009; Lane & Sulikowski, 2017; Piazza & Sousa, 2014) and, thus, in a final study a questionnaire designed to measure political orientation was developed (Study 5).

Models of morality

Several psychological models have been developed to explain moral reasoning but differ in their assumptions about the underlying processes. For most of the twentieth century, psychologists viewed moral decision-making as a rational process in which people weigh pros and cons to make a decision that maximizes their utility (e.g., Kohlberg, 1969; Piaget, 1933). The assumption that the correct moral decision is one that leads to the best overall outcome relies on the normative theory of *utilitarianism* (Bentham, 1789/1961; Mill, 1861/2015). In contrast, a person relying on *deontology* judges whether an action is right or wrong based on notions of duties or rules (Kant, 1785). A classic example that contrasts deontological and utilitarian decision making is the trolley dilemma, in which a runaway trolley threatens to run over and thereby kill five people who are tied to tracks. The only way to save these people is to redirect the trolley to another track, which will lead to killing a single person who is tied to this alternative track. A deontological judgment would mean to act in accordance with universal norms (e.g., do not kill), thereby not redirecting the train. A utilitarian judgment, however, would optimize the overall outcome, which means saving more people, thereby redirecting the train to only kill one instead of five. In the operationalization of moral judgments and decision-making, emotional or intuitive processes are often marked by deontological instead of utilitarian

decision-making (e.g., Friesdorf et al., 2015; Greene et al., 2004; Koenigs et al., 2007; Valdesolo & DeSteno, 2006).

Beyond the mere consideration of utility, more recent theories of moral decision-making explicitly consider different processes of moral reasoning (i.e., intuitive and deliberate processes) and their interplay with different emotions (e.g., *moral foundations theory*, Graham et al., 2009; *dimensional moral model*, Gray & Wegner, 2011; *dual process theory*, Greene et al., 2001; *social intuitionist model*, Haidt, 2001; *theory of dyadic morality*, Schein & Gray, 2018). The *social intuitionist model* (Haidt, 2001) proposes that moral intuitions precede deliberate reasoning. While the intuitive system is assumed to be fast, automatic, and inaccessible, the reasoning system is assumed to be slow, effortful but consciously accessible. Although a deliberate judgement can adapt or revise the initial emotional response, the model assumes that there is no deliberate reasoning without a preceding intuitive default response. Haidt (2001) based his model on earlier findings showing that some moral judgments cannot be explained by reason but only with a gut feeling. For instance, Haidt et al. (2000) asked participants to describe their reactions to harmless but tabooed actions, such as private, consensual, and protected incest between siblings. The participants insisted that the described behavior is wrong but could not find a reason-based explanation – a phenomenon termed *moral dumbfounding* by the authors. Critics of the social intuitionist model argue that deliberate reasoning can also occur without a prior intuitive reaction and can further even affect moral intuitions, for instance, through cognitive appraisal (i.e., the ability to either be instructed or actively take the perspective of another person, Pizarro & Bloom, 2003). They pointed out that real-world moral thought is complex, which cannot lead to immediate intuitive reactions as to what is right or wrong without prior cognitive reflection (Pizarro & Bloom, 2003).

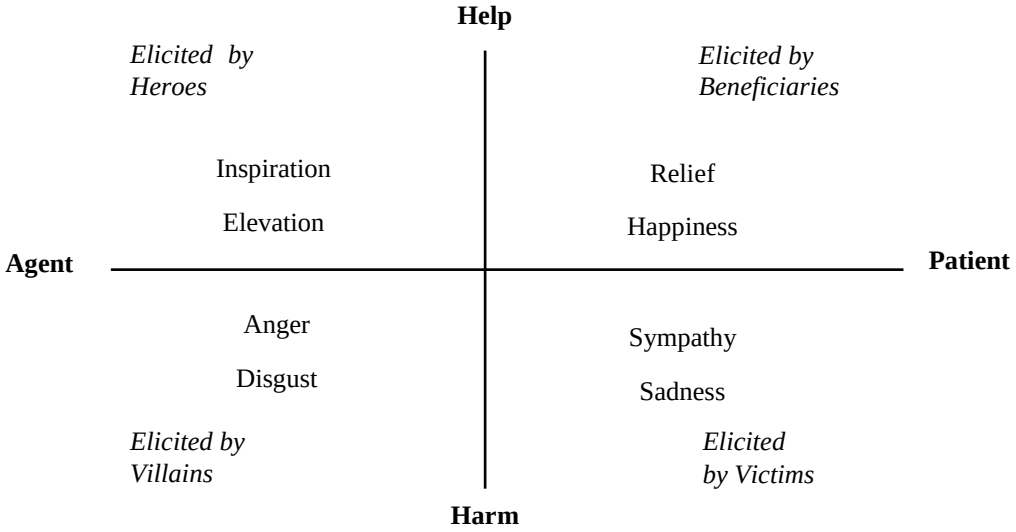
In comparison to the social intuitionist model, the *dual process theory* (Greene et al., 2001) assumes two distinct competing cognitive processes based on emotion and rationality,

respectively. In an fMRI study, the authors found that when reading emotionally evoking dilemmas, participants showed patterns of neural activation that are typically associated with emotion processing. However, when more time is given to deliberate, participants chose a reason-based and more calculated response. The theory can be understood as a domain specific model of more general dual process models in social cognition (e.g., system I/system II; Kahneman, 2011). What the social intuitionist model and the dual process theory have in common is that they assume a competition of emotional and rational processes rather than an interplay between emotion and reason.

Other models of morality focused on how different moral dilemmas elicit certain kinds of emotions. For example, the *dimensional moral model* (Gray & Wegner, 2011) describes moral emotions with two orthogonal dimensions (Figure 1). It assumes that moral judgments are always attributed to a person who commits them. Therefore, the first dimension depicts the person that is either on the acting (agent) or the receiving (patient) end of a moral action. The second dimension crosses the first and depicts the valence of the action ranging from harmful to helpful, resulting in four categories of moral emotions. For instance, watching a person who pushes another person in front of a moving train will lead to anger and disgust towards the villain and sympathy and sadness for the victim. The more recent *theory of dyadic morality* suggests that there is a causal bidirectional link between harm and moral judgments (Schein & Gray, 2018). Similarly to the dimensional moral model, an intentional agent causes damage to a vulnerable patient. According to the model, judgments of immorality cause the perception of harm and when acts are perceived as harmful they also seem morally wrong, thereby forming a causal loop of harm and immorality.

Figure 1

The Dimensional Moral Model (Gray and Wegner, 2011).



Note. Moral emotions can be described in two intersecting dimensions: moral type (agent/patient) and valence (harm/help). This leads to the elicitation of different emotions in the respective quadrants.

In an attempt to merge evolutionary and cultural models across different societies, *moral foundations theory* was developed (Graham et al., 2009, 2013). This pluralistic theory describes how individuals and groups differ in their morality based on the underlying set of moral foundations. According to it, the origin and variation in moral reasoning involves five innate, intuitive, and culturally applicable moral foundations: care/harm, loyalty/betrayal, fairness/cheating, authority/subversion and purity/degradation. The moral foundations that are proposed in the model are directly linked to emotions. For instance, violations of purity have been related to disgust, and harm and fairness violations to anger (e.g., Horberg et al., 2009; Russell & Giner-Sorolla, 2011).

What the above models have in common is that they assume an interplay of emotional and cognitive processes, which underlie moral judgments. However, there are differences in the order in which emotions and cognition interact, the weighting of the emotional and cognitive

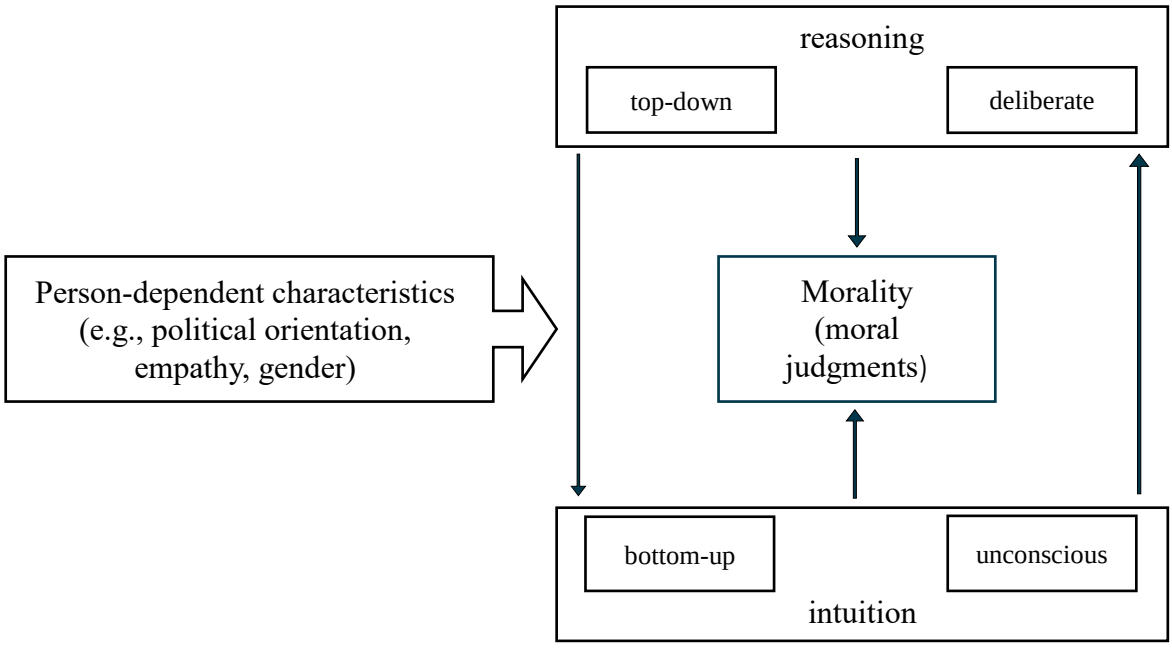
processes, and in what kinds of emotions are elicited. In addition, the models do not include any person-dependent traits or states.

Based on the dual process framework of emotion and reason, I propose an *interactive model of moral judgments* that goes beyond previous models by including person specific variables (Figure 2). In comparison to the social intuitionist model and dual process theory, it is assumed that intuition and reason can be understood as complementary rather than competing processes. Whereas the intuitive influence is bottom-up, unconscious, and driven by emotion, reasoning is top-down and deliberate. Depending on a person's characteristics (e.g., their political orientation or empathy) one of the emotional or rational processes might be up- or down-regulated, therefore having an impact on both levels but to a varying extend. In the model, both rational and emotional processes influence moral judgments but additionally affect each another. In other words, intuitive judgments can guide rational processes but prior (cognitive) knowledge can also guide and regulate emotion processes. This assumption is based on the codependency of emotion and reason on a large theoretical foundation of human decision-making as well as several studies. For instance, the assumption that emotion guides reason is in line with other theories of emotion in human decision-making (e.g., *somatic marker hypothesi*s, Damasio et al., 1991; *affect heuristics*, Slovic & Peters, 2006) and corroborated by neuroscientific evidence (for a review, see Naqvi et al., 2006). However, to develop a rapid emotional reaction towards a person in a new situation, one must have a cognitive understanding of what is right or wrong, or, in the words of Lazarus: "Cognitive activity is a necessary precondition of emotion because to experience an emotion, people must comprehend—whether in the form of a primitive evaluative perception or a highly differentiated symbolic process—that their well-being is implicated in a transaction, for better or worse." (Lazarus, 1984, p. 124). Evidence that cognitive processes can influence emotional reactions come from studies on emotional regulation through cognitive appraisal (for a review, see Jamieson et al., 2018) and emotion regulation (Szekely & Miu, 2015; van't Wout et al.,

2010). While previous models could explain behavior in artificial scenarios and well-controlled settings without any interfering factors, they neglected the influence of potential interfering factors. The aim of the interactive model of moral judgments is to be applicable to everyday moral behavior, therefore also accounting for person-dependent specificities. It was developed as a theoretical basis for Study 2 and 3. The model is evaluated based on the evidence of the studies in the General Discussion.

Figure 2

The interactive model of moral judgments.



Note. Moral judgments are influenced by intuition and reasoning. While intuition is a rapid response, which is bottom-up and unconscious, reason is top-down and deliberate. Reasoning and intuition do not only affect moral judgments but also interact independently. Person-dependent characteristics influence all other levels of the model.

Identity at the center of moral judgments

Most research in moral psychology relies on scenarios that contrast utilitarian and deontological choices or describe unspecific interactions between strangers (Bauman et al., 2014; Körner et al., 2019). These study set-ups have been criticized for their lack of plausibility

(Körner et al., 2019) and external validity (Bauman et al., 2014). It is unclear how much results that rely on unspecific and extreme descriptions of moral behavior can be generalized to everyday behavior. In addition, most of the studies that have investigated moral judgments focused on behavior instead of putting judgments of the acting people at the center of moral research. However, as Hester and Gray (2020) argued, "when people make moral judgments in everyday life, they usually know both what someone did (i.e., their act) and who they are (i.e., their identity)—and who often matters more than what." (p. 217). Considering identity in moral judgments is therefore pivotal to gain a better understanding of the moral mind (see e.g., Lapsley, 2015).

Media research suggests that moral reasoning is strongly influenced by a person's impression. Individuals empathize with characters that share the same moral values, which leads to emotional side-taking in narratives (Raney, 2010). Lee and Shapiro (2014) proposed that affective dispositions guide moral and intentionality judgments for viewers to understand a character's actions. Media consumers monitor moral behavior and decide whether it is considered as morally appropriate or just. Enjoyment increases when liked characters experience positive outcomes or when disliked characters experience negative ones, and vice versa (Raney, 2004). The findings from media research can be used by transferring aspects of it into research designs and thus making moral scenarios more realistic and accessible. Among other things, this can be achieved by depicting social interactions between people whose names and faces are known, by going beyond morally reprehensible scenarios and also depicting positive and neutral behavior, and by including everyday behavior or, in the best case, even actual current events.

Faces increase impression formation

A first step to implement person perception in the study of moral judgments is to base judgments on morally acting people instead of unspecific descriptions of behavior. Character

information (i.e., how good or bad a person behaves) has been found to be extremely important for impression formation (Goodwin et al., 2014). Equally, moral information can alter the perception of a person's character (Delgado et al., 2005). This bidirectional connection underlines the close link between a person's behavior and the assessment of their character.

The use of faces in addition to description of behavior has two advantages. First, faces increase ecological validity by giving more information about a person. Several studies found that people can infer personality traits solely from facial appearance (e.g., Klapper et al., 2016; Stewart et al., 2012). Second, knowledge about an individual can influence the perception of their face. For instance, neutral faces associated with verbal descriptions can alter how an observer evaluates a face or a facial expression (Baum et al., 2018). On the one hand, the use of faces in addition to verbal or written descriptions can create a more holistic impression of a person and thereby help to identify with the depicted moral individual. On the other hand, the evaluation of (neutral) faces that are associated with moral information will show how person perception is altered by moral context. Using a name in addition to the face provides a further cue for an even more holistic impression formation.

The importance of morally positive behavior

A second possibility to increase ecological validity in the research of moral judgments is to add positive moral behavior in study designs. Moral role models present admirable moral virtues and are widely utilized in moral education. Children need moral exemplars to develop an understanding for morally right and wrong (Bandura & McDonald, 1963). However, moral exemplars are not only important in moral development but also in adult life. For instance, it was found that witnessing another person's altruistic behavior elicits elevation and therefore helping behavior in participants (Algoe & Haidt, 2009; Schnall et al., 2010). In addition, social comparisons with exemplars help people to evaluate and enhance their moral behavior and self-

image (for a review, see Suls et al., 2002). Therefore, for a more complete account of morality, morally adherent (i.e., positive) behavior needs to be considered in research.

Real world moral dilemmas: the corona pandemic

The artificial nature of the scenarios that are used in moral research limits their generalizability to natural environments (Hofmann et al., 2014). A third possibility to increase comparability to real situations is therefore by using everyday moral scenarios. Even more ideal are moral decisions and judgements that reflect current real-world dilemmas.

The current corona pandemic is such a situation, which has led to a multitude of moral dilemmas and decisions with high moral relevance. What sets them apart from the simple dilemmas studied in laboratory experiments is the fact that not all citizens are equally affected. Different groups differ in their risk of contracting the disease, their risk of hospitalization and serious complications, and in their ability to socially distance without ruinous consequences for their livelihood. Each intervention has to trade off different goals, and it is clear that none of the proposed measures will be equally accepted by everybody. The goals of minimal health risks, economic welfare, and individual freedoms have to be traded off. Given different age-related and health-related risk profiles the optimal balance between these constraints varies between groups of people. People with young children are in a different situation than singles or childless couples. Also, the work situation matters. People who can work from home can weigh economic risks differently from people that are put at a health-risk at work (Bassarak et al., 2017; Everett et al., 2020).

The corona pandemic is not only an uncertain but also a continuous event that poses an adaptive challenge to humans. Fear is a response towards perceived danger or harm and has been identified as a central emotion during the corona pandemic (Asmundson & Taylor, 2020; Porcelli, 2020). For instance, higher levels in fear have led to increased preventive behaviors (Harper et al., 2020; Yıldırım et al., 2021) and might also explain the increased panic buying

during the pandemic (Arafat, Kar, Marthoenis, et al., 2020). In moral judgments, it has been shown that individuals who score higher in fear encourage more ethical moral decision making compared to individuals who score lower in fear (Singh et al., 2018). In addition, serotonin, which is closely related to fear and anxiety, has been found to play a key role in moral behavior (Tost & Meyer-Lindenberg, 2010). In conclusion, the corona crisis illustrates that personal characteristics play a major role in moral decision-making and judgment. Since all people are exposed to this crisis and gained experience with moral situations that arose during the pandemic, the study of these moral decisions and judgments increases comprehensibility and closeness to real-life.

Person characteristics influence moral judgments

The manner in which scenarios or dilemmas are constructed and presented is central to the study of moral judgments. However, apart from stimulus inherent properties, person variables can also alter moral decision-making and judgment. For instance, it has been found that political orientation, empathic capacity, or gender affect neural reactions towards moral behavior (e.g., Harenski et al., 2010; Lane & Sulikowski, 2017; Yoder & Decety, 2014) and an individual's behavioral moral judgments (Capraro & Sippel, 2017; Gleichgerrcht & Young, 2013; Graham et al., 2009). In the following, these person variables and their implication for moral judgments will be outlined in more detail.

Political orientation

Political debates often revolve around a small set of moral principles (Ylä-Anttila & Luhtakallio, 2016). However, political debates are not only affected by moral issues, but political orientation also influences the way people approach morality. For instance, in moral foundations theory, political conservatives differ from liberals in that they ascribe moral value to a greater range of social actions, beyond those involving care or fairness (Graham et al., 2009). According to the theory, liberals value care and fairness more than conservatives, while

conservatives value loyalty, authority, and purity more than liberals. Several subsequent studies reinforced the assumption about these differences between conservatives and liberals in their moral foundations (Cannon et al., 2011; Federico et al., 2013; Hofmann et al., 2014; Johnson et al., 2016; van Leeuwen & Park, 2009).

Differences based on political orientation have also been found for how emotionally involved individuals are in their moral decisions and judgments. Lane and Sulikowski (2017) found that under cognitive load, liberals spend more time contemplating a scenario compared to conservatives whose response times were not affected by cognitive load. The authors suggest that these findings show that conservatives rely more on system I (fast, emotional) and liberals on system II (slow, reasoned) thinking in their moral decisions. This assumption goes in line with findings showing that conservatives assess harmless taboo violations as morally impermissible and exhibit a non-consequentialist (i.e., more emotional) thinking style (Piazza & Sousa, 2014). Similarly, it has been found that social conservatives tend to emphasize the intrinsic value of actions during moral judgments (i.e., deontological reasoning), whereas liberals emphasize the expected outcome of an action (i.e., consequentialist reasoning) (Hannikainen et al., 2017).

As outlined, a growing body of research has identified political orientation as a relevant variable in moral judgements. However, most of this research is based on US samples and thereby the underlying US political system. It is common that political orientation is measured on a single-item scale, which ranges from conservative to liberal or even a binary classification of political orientation based on party affiliation (e.g., Democrat or Republican). In order to make reliable claims about the influence of political orientation in moral judgments, a good assessment tool for this trait is needed, which is adapted to the political system of the country

in which the study takes place[1]. In addition to using an adapted and contemporary measure of political orientation, few studies have considered how conservatives and progressives might differ in their underlying processes when making a moral judgment. A recent study found that EEG responses reflect political orientation and can even predict voting behavior (Galli et al., 2021). This highlights the importance of considering neural responses in the study of political orientation in addition to moral judgments.

Empathy

Empathy, or the ability to understand and share others' emotional states (Decety & Jackson, 2004), is a central predictor of moral judgments. Higher trait empathy, i.e., the capacity for empathic reactions as a stable feature of personality, has been found to increase prosocial behavior (e.g., Stocks et al., 2009; Stürmer et al., 2006). While several studies found that a lack of empathy leads to more utilitarian moral decision making (e.g., Gleichgerrcht & Young, 2013; Patil & Silani, 2014), others argue that empathy shapes the emotional responses towards moral decisions but not the choices per se (Cecchetto et al., 2018). However, the importance of empathy in moral decision making is recognized by all of these studies. Empathy is a particularly relevant variable in research designs where faces are used as stimuli. For instance, people who scored higher in empathy identified emotional facial expressions faster and more accurate compared to people with lower empathy (e.g., Besel & Yuille, 2010; Soria Bauser et al., 2012). A recent study showed that empathy may be associated with an enhanced integration of character context in the processing of (emotional) faces (Clark et al., 2020). Thus, a better

[1] Individuals who score left of center, both for social and economic issues, are usually referred to as "liberals". This distinction carries a number of dangers. For instance, in Germany, economical liberals can usually be categorized as politically conservative (see e.g., the FDP; Infratest Dimap, 2015).Thus, several scholars have come to speak of "progressives" when referring to individuals that score left of center in the political spectrum outside of the US (e.g., Hannikainen et al., 2017; Inbar et al., 2012; Kye & Hwang, 2020). Since all studies of this thesis were conducted in Germany, "progressive" is used when referring to the left side of the political spectrum within the studies of this thesis and the term "liberal" when referring to studies where this term was used. For this thesis, the terms can largely be considered synonymous.

understanding of moral judgements can be achieved if empathy is taken into account as a relevant factor.

Apart from moral judgments, empathy might also be a trait in which conservatives differ from progressives. It has been found that people who endorse liberal policies tend to experience more empathy compared to conservatives (Hasson et al., 2018). Skitka and Tetlock (1992) found that liberals generally attribute external causes towards people's plight (e.g., unjust social practices) and therefore direct more empathy towards them, whereas conservatives attribute internal causes (e.g., laziness) and are therefore less empathetic. In addition, empathy has been found to be negatively correlated to social dominance orientation, which is often used as a measure for conservatism (Bäckström & Björklund, 2007). Thus, both the interconnectedness of political orientation and empathy, as well as their influence on moral judgments pose important open research questions.

Gender

A third factor on which people potentially differ in moral judgements is gender. Traditional explanations rooted in evolutionary theories and animal behavior claim that females, as primary caregivers, are exposed to higher selective pressure, which might explain gender differences in emotion recognition and empathy in care-related issues (Christov-Moore et al., 2014). In Gilligan's model of care and justice (Gilligan, 1982), females have been described as more sentimental in moral decision-making and moral judgment and are thought to be driven by care and empathy for others, whereas males are more rational in their moral reasoning and driven by justice. In line with this description of females as the more emotional gender, research indicates that females are more prone to deontological judgments, whereas males tend to answer in a utilitarian way (e.g., Baez et al., 2017; Bracht & Zylbersztejn, 2018; Fumagalli et al., 2010). In other words, since deontological judgments are said to be driven by

emotion, whereas utilitarian judgments derive from rational processes, females might be more emotional in their moral judgments.

However, meta-analytical findings suggest that gender differences in moral orientation are small and do not offer strong support for the care and justice dissociation for females and males (Jaffee & Hyde, 2000). The differences that are found in moral research might rather be related to gender roles that people have learned to grow into. In addition, most of the gender research in morality and empathy has focused on the study of gender differences, whereas gender similarities have received little to no attention in scientific discourse (see *gender similarity hypothesi*s, Hyde, 2005). This likely has led to overinflated claims for differences, when in fact most of the reported gender effects in psychological research are small or close to zero (Hyde, 2014). The small differences might stem from disparate expectations towards females and males and might fluctuate when considering context and other confounds (Hyde, 2005). When gender is considered in studies of morality, it primarily relates to the person who is making a judgment. One study that explored whether females and males should behave differently, found no gender differences (Capraro & Sippel, 2017). However, in other domains, stereotype-based norms have led to different expectations based on gender (see e.g., Biernat & Manis, 1994; Gaunt, 2013; Oh et al., 2019). Whether people are judged differently for the same behavior is a question that has not yet been sufficiently addressed in studies of moral judgments. Due to the inconclusive findings of previous research, both the gender of the judge as well as the gender of the people who are judged should be considered as potential factors in moral judgments.

Current research

Morally good behavior but more so moral transgression have massive ramifications for social relationships. Relational theory emphasizes that moral judgments need to be understood in the social relationship between the involved individuals (Fiske & Tetlock, 1997). The

dimensional moral model (Gray & Wegner, 2011) and the theory of dyadic relationships (Schein & Gray, 2018) include this assumption and describe actions from a moral agent towards a recipient of the act. Transferring this framework to everyday moral interactions, or even real-world events with moral implications, can increase the generalizability of study findings in the research of moral judgments. Therefore, the aim of the current research was to investigate moral judgments in contexts that are comparable to real life and consider person-specific characteristics of the involved individuals. Specifically, this thesis includes the following studies and research questions:

Study 1 was conducted to create and validate fitting stimuli for the research of moral judgments. The stimuli are short descriptive scenarios of everyday situations between two people, which end in a morally positive, negative, or neutral behavior from one of the described individuals towards the other. The validated scenarios provide a good basis for studies on moral judgments. Study 2 addressed the question whether moral judgments are affected by characteristics of the moral information itself (i.e., valence) and whether the process is additionally affected by person-dependent variables (i.e., empathy, political orientation, or gender). Study 3 was designed to gain a better understanding of how emotion and political orientation affect responses towards moral agents on a neural level and in moral judgments. Conservative and progressive participants were preselected and tested in an electroencephalogram (EEG) study. We used event-related potentials (ERPs) as a reflection of their implicit responses towards moral agents as well as ratings of the moral agents' likability as explicit moral judgments.

To increase ecological validity even more in applying moral judgments to a present situation, a longitudinal and cross-cultural study in relation to the corona pandemic was conducted (Study 4). This study fills important gaps in the research of moral judgments because it is based on actual current events. It investigated whether moral judgments differ based on

timely and local proximity to an event, and whether the judgments are affected by person-dependent variables and culture.

Since political orientation has been identified as a key personality variable in moral judgments (e.g., Graham et al., 2009; Hannikainen et al., 2017; Lane & Sulikowski, 2017; Piazza & Sousa, 2014; Ylä-Anttila & Luhtakallio, 2016), a good measure of this construct is needed for the assessment in a German population. The objective of the last study (Study 5) was therefore to develop and validate an adequate instrument to measure political orientation. This questionnaire has already been successfully applied as a selection criterion for Study 3, but could also be useful for future studies that focus on differences based on political orientation in moral judgments and beyond.

A novel and large set of everyday German moral scenarios of negative, neutral and positive behavior

Abstract

A major shortcoming of studies on moral judgments is that they often rely on inadequate stimuli. In this study, we developed and validated a large set of moral scenarios in German. In total, the set contains 1170 scenarios with 195 distinct settings. Each of the 195 scenarios exists in three versions, differing in the valence of the action of a moral agent, which is either positive, negative, or neutral, as well two versions regarding the gender of the agent and the recipient of the moral act (male, female). The scenarios were validated on the dimensions of moral valence, arousal and their underlying moral foundation based on the moral foundations theory. Negative, neutral, and positive scenarios could be distinguished, both on the dimension of valence and arousal. The classification of the scenarios in the underlying moral foundations was only successful for care and partially for fairness items. A list of the most selective items on the dimension of valence are provided for future research. Due to their validation on the dimensions of valence and arousal, this stimulus set is ideal for neuroscientific studies that investigate the underlying affective processes of moral judgments.

Keywords: moral judgments, moral stimuli validation, valence, arousal, moral foundations theory

Introduction

Controlled and validated stimuli are pivotal in experimental study designs to transfer the results of one's research to reality. Such stimuli will not only increase experimental power but also reduce unintentional biases. However, in the study of moral judgments, most stimuli are derived from trolley dilemmas, which are very abstract from real life and extreme in their nature. In addition, there is little variation in stimuli, which increases the risk that what is measured as a moral judgment is actually tied to the specific situation that the moral scenario depicts (Rhee et al., 2019). With the aim of having good stimuli that span the moral domain available for investigating the influences on judgments and the neural basis of morality, Clifford et al. (2015) developed a comprehensive set of moral foundations vignettes. The scenarios are based on the *moral foundations theory* (Graham et al., 2013), which includes the foundations of authority, care, fairness, loyalty and purity While the moral foundations vignettes might provide a good measure for some studies that investigate violations of moral norms, they do not include morally positive or neutral behavior and are only available in English. In addition, the vignettes were only validated based on the moral foundations.

In the study of moral judgments, the importance of affects and emotions are not only theoretically outlined (e.g., *dual process theory*, Greene et al., 2001; *social intuitionist model,* Haidt, 2001) but also empirically investigated by a large body of neuroscientific studies (e.g., Decety & Cacioppo, 2012; Leuthold et al., 2014; Ugazio et al., 2012). Emotions can act as "moral amplifiers" (Horberg et al., 2011), which is why stimuli should be controlled for factors of emotionality (i.e., valence and arousal) to avoid confounding factors.

The aim of this study was to develop and validate a large set of moral scenarios for the dimensions of valence (harmful, helpful, neutral), arousal (low, high) and moral foundations (authority, care, fairness, loyalty, purity). More specifically, we aimed at extracting at least 450 fitting scenarios out of 585 designed scenarios for the use of neuroscientific studies. Therefore,

the scenarios should be balanced in valence and arousal, and, ideally, map onto different underlying moral foundations (Graham et al., 2013).

The scenarios included short descriptions from one agent who does something positive, negative, or neutral (moral category) to a patient. Thus, each scenario consisted in three versions with one setting, only differing in the action from the agent (Table 1). In addition, the scenarios differed in the intended underlying moral foundation (authority, care, fairness, loyalty, purity). Our hypotheses were as follows:

1. On the dimension of valence, scenarios should be rated according to the intended moral category with negative scenarios being rated as more harmful than neutral scenarios and positive scenarios as more helpful than neutral scenarios.
2. On the dimension of arousal, positive and negative scenarios should elicit higher arousal compared to neutral scenarios. Negative and positive scenarios should not differ in ratings of arousal.
3. Regarding the moral foundations, the categorization of each scenario should match the intended foundation of the moral foundations theory. Explicitly, each scenario should be classified in the intended moral foundation for positive and negative scenarios and in "no moral foundation" for the neutral scenarios by at least 60% of the participants. Further, we expected that the scenario would be grouped less than 20% in the unintended foundation (e.g., classify a "fairness" item as "care"). The criteria were derived from a previous validation study of moral foundations vignettes (Clifford et al., 2015).

Methods

Materials and Methods

The stimuli were designed based on the *dimensional moral model* (Gray & Wegner, 2009), which follows the structure of the two dimensions of moral valence (harm/help) and

moral type (agent/patient). Crossing those two dimensions results in an agent who commits a morally positive or negative action towards a moral patient who is a recipient of this right or wrongdoing. Although not originally proposed in the model, it also allows for a third, neutral, interaction between an agent and a patient. Thus, the scenarios consist of descriptions of an agent committing an act towards a patient and differ with regard to the harmfulness or helpfulness of the committed act. They are similar in length and semantic details and in a way that help or harm was not an incident by chance but was intended by the agent. To reduce cognitive load and keep scenarios similar, except for the manipulated morality, mixed gender scenarios were developed to be compatible for both, male and female agents or patients.

Scenarios were constructed using the following criteria: Each scenario exists in three versions (positive, negative, neutral) with the same setting, only differing with the action of the agent towards the patient (moral category, see Table 1). We developed 195 scenarios in three versions for moral category (585 scenarios) and for each of these scenarios one version with a female agent and male patient and another version with a male agent and female patient (1170 scenarios in total). The full list of moral scenarios in German can be found in the Appendix A (Table A1). To determine our sample size for the validation study, power analysis was computed via G*Power (version 3.1.9.4) for our main hypothesis (Hypothesis 1), differences in the valence ratings). Based on previous validation studies of similar scenarios sets we used a linear model for a large effect ($f^2 = 0.40$), which indicated a sufficient power with a sample size of 35 participants. The 1170 items were manually split into 12 different lists to reduce repetition and length of the study for the participants. Each list consisted of 97 or 98 items that were rated by the participants. Participants were randomly allocated to one of the 12 lists, with at least 35 participants for each list. Thus, the minimum sample size was set to 420 participants.

Table 1

Example of one moral scenario in three versions for each moral category (negative, neutral, positive)

moral category	scenario
negative	Peter and Anna take the train to Frankfurt and collide at the door of a compartment. Both have the same seat number on their reservation due to a booking error. Peter insists on his seat, although Anna has a broken leg.
neutral	Peter and Anna take the train to Frankfurt and collide at the door of a compartment. Both have the same seat number on their reservation due to a booking error. Peter leaves the seat to Anna and takes another free seat.
positive	Peter and Anna take the train to Frankfurt and collide at the door of a compartment. Both have the same seat number on their reservation due to a booking error. Peter leaves the seat to Anna and sits down in the aisle.

Note. Overall, 585 scenarios were developed, 195 for each moral category (negative, neutral positive).

Participants

We recruited 460 (121 males, 321 females, 18 other, M_{age} = 31.48, SD_{age} = 14.14, $Range_{age}$ = 18-86 years) native German speakers to take part in the online study. Participants could either enter for a raffle to win a total amount of 400€ or were reimbursed in course credit.

Procedure

The study was approved by the ethics committee of the department of Psychology at the University of Göttingen. The scenarios were validated in an online survey created with the study framework *formr* (Arslan et al., 2018). Participants were fully informed about the study aims at the beginning and had to consent by clicking "I agree". They first answered questions on their gender (female, male, other), age (18-110 years), highest education (none, Hauptschule (lower secondary), Realschule (secondary), Fachhochschule/allg. Hochschulreife (higher secondary), Berufsausbildung (vocational training), Bachelor, Master, PhD), religiousness (1 = not religious

to 7 = very religious) and party affiliation ("Which party can you identify with the most?", answer options: "CDU/CSU", "SPD", "FDP", "AfD", "Bündnis 90 Die Grünen", "Die Linke", "Die Partei", "Piratenpartei", "Freie Wähler" and "others"). Afterwards, each participant was directed to one of 12 lists that contained one part of the full scenario set. Half of the scenarios were presented with a male agent and female patient and half with a female agent and male patient. Each of the 12 lists that the participants were directed to were constructed as to contain approximately the same number of items for each moral foundation. In addition, to avoid repetition, each list included only one of the three versions (negative, neutral, positive) for each individual scenario set. Afterwards, participants were instructed for the rating of the scenarios. They were told that they would see different scenarios where two people (Anna and Jan) will interact and that they should rate the scenarios independent of each other. They were instructed to imagine that they observed the interaction between Anna and Jan as an uninvolved third party and to respond fast and intuitively. For each scenario, participants were presented with three questions: First, they were asked "How do you judge the behavior of [Anna/Jan] towards [Jan/Anna]?" on a seven-point scale ranging from 1= *very harmful* to 7= *very helpful*. The second question was "Why is the behavior harmful or helpful? (select the main reason)". Participants could choose between six options corresponding to the moral foundations: a) care: "the behavior is based on norms of caring and protection (e.g., being loving or causing someone harm)"; b) fairness: "the behavior is based on norms of fair or equitable treatment of each other (e.g., cheating someone or advocating equality)"; c) loyalty: "the behavior is based on norms of loyalty (e.g., betraying someone or being incorruptible).", d) authority: "the behavior is based on norms of showing respect for authority (e.g., subordinate to others or respecting traditions)."; e) purity: "the behavior is based on norms of purity and respect for religion (e.g., degrading, disgusting acts or devout behavior)" and f) no moral transgression: "The behavior isn´t morally reprehensible and can´t be allocated to the categories described above". As a third question participants were asked "How strong was your emotional reaction to the depicted scenario?"

from “1 = no emotional reaction” to “7 = very strong emotional reaction”. At the end of the study, participants were informed that the study aimed at validating a set of moral scenarios for future use in studies on moral judgments.

Statistical Analyses

All statistical analyses were conducted in RStudio (version 4.0.5; R Core Team, 2019). For the valence and arousal ratings, we implemented Linear Mixed Models (LMMs) using the lmer function from the lme4 package (Bates et al., 2015). We included moral category (negative, neutral, positive) as fixed effects and by-subject and by-item random intercepts in order to control for individual differences and by item random intercepts to control for differences of the scenarios. As an overall test of the fixed effects, we compared the full model to the respective null model lacking the fixed effects but comprising the same random effects structure using a likelihood ratio test (Fox et al., 2012; R function Anova with argument test set to “Chisq”). For the significant model comparisons, we tested orthogonal planned contrasts for the factor of moral category (negative vs. positive vs. neutral), with contrasts weights set to (-1, 0, +1) to compare neutral with negative scenarios, (0, +1, -1) for the comparison of positive and neutral scenarios and (-1, +1, 0) for the negative-positive comparison. In addition to the LMMs, we calculated correlations for valence and arousal in each moral category (negative, neutral, positive) using Pearson correlations (function cor.test of the stats package, R Core Team, 2019). Lastly, for the categorization of the scenarios concerning their underlying moral foundation, we computed the percentages for the classification into the five moral foundations for each item.

Results

Our sample was overall little religious (M = 1.76, SD = 1.76 on a scale from 1 = not religious to 7 = very religious). Political orientation was overall rather progressive/left with most participants indicating that they can identify with “Bündnis 90/Die Grünen” and “Die

Linke", which are at the left end of the political spectrum (AfD = 36, Bündnis 90/Die Grünen = 187, CDU/CSU = 28, Die Linke = 56, Die PARTEI = 32, FDP = 21, Freie Wähler = 11, SPD = 30, Piratenpartei = 7, others = 52).

For the question aiming at the moral valence of the scenario, negative scenarios were rated with a mean of M = 1.87 (SD = 1.18), neutral scenarios with a mean of M = 5.10 (SD = 1.48), and positive scenarios with a mean of M = 6.16 (SD = 1.25). The full-null model comparison showed that the scenarios were rated as significantly different from each other in their harmfulness or helpfulness ($\chi 2$ = 50002.66, df = 2, p < .001, $R^2_{marginal}$ = 0.66). Planned contrasts showed that negative scenarios were rated as more harmful compared to neutral scenarios (p < .001) and positive scenarios were rated as more helpful compared to neutral scenarios (p < .001). For the question aiming at the arousal of the participants, negative scenarios were rated with a mean of M = 3.45 (SD = 1.71), neutral scenarios with a mean of M = 2.26 (SD = 1.63), and positive scenarios with a mean of M = 3.00 (SD = 1.66). The comparison of the model with the null model revealed a significant impact of moral category on the arousal rating ($\chi 2$ = 4545.26, df = 2, p < .001, $R^2_{marginal}$ = 0.08). Both, negative and positive scenarios were rated as more arousing than neutral scenarios (both ps < .001). However, negative scenarios were also rated as more arousing compared to positive scenarios (p < .001). The correlations for the valence and arousal ratings were significant for each moral category (all ps < .001). Figure 3 depicts the quadratic relationship between the valence and arousal ratings. Table 2 reports detailed statistics on the moral valence and arousal ratings.

Figure 3

Negative, neutral, and positive items mapped on the dimensions of valence and arousal.

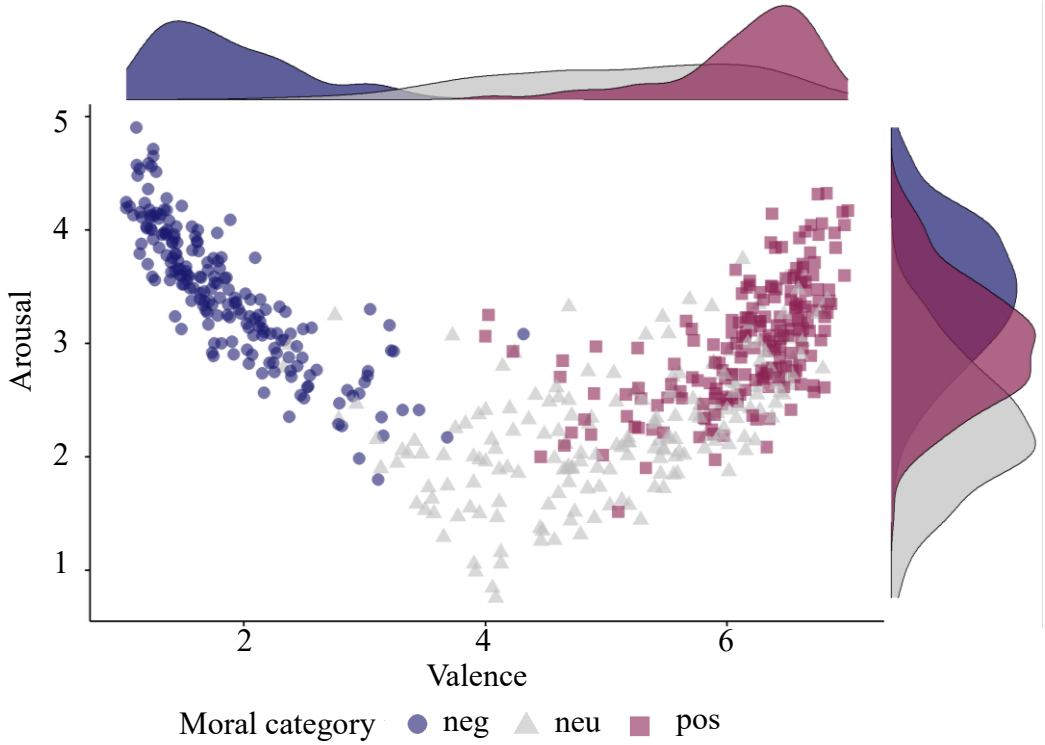


Table 2

Descriptive statistics, Pearson correlation and post-hoc comparisons for the moral valence and arousal ratings

	Moral valence		Arousal		Correlation		
Moral category	*M*	*SD*	*M*	*SD*	*r*	*p*	*95% CI*
positive	6.16	1.25	3.00	1.66	0.57	<.001	[0.47 0.66]
neutral	5.10	1.48	2.26	1.63	0.50	<.001	[0.39 0.60]
negative	1.87	1.18	3.45	1.71	-0.84	<.001	[-0.87 -0.79]

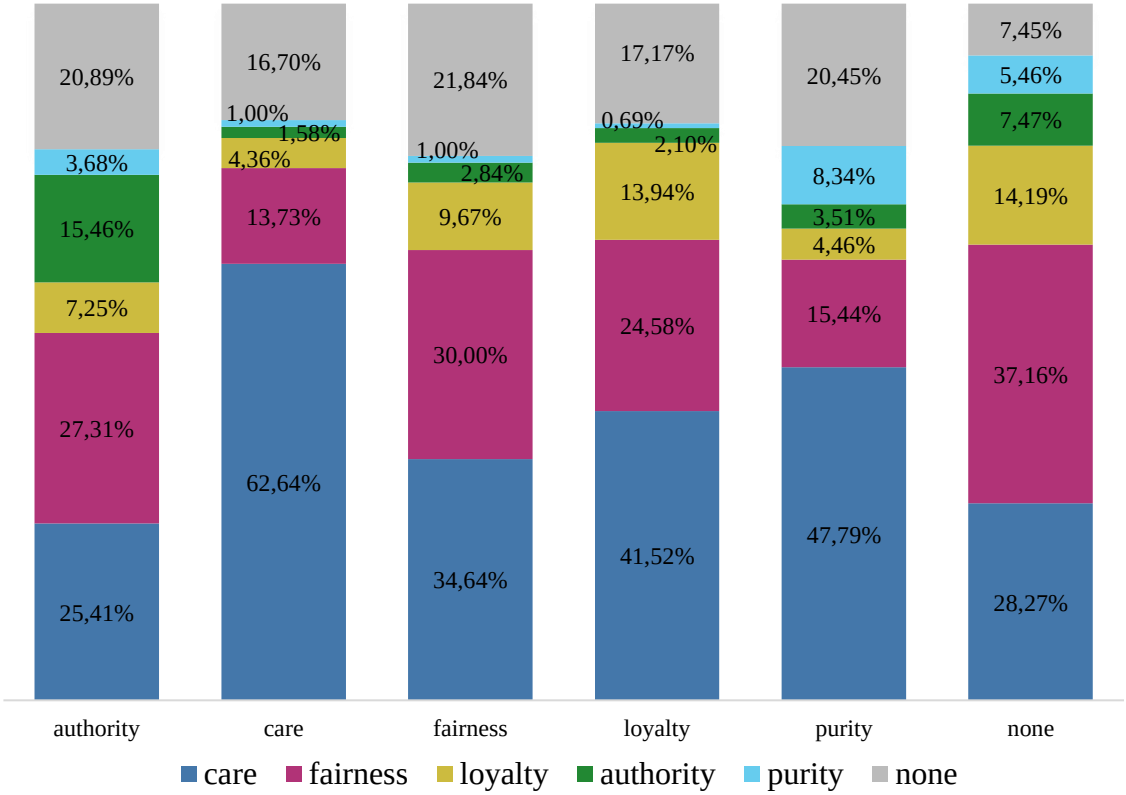
	Moral valence			Arousal		
Comparison	M_{Diff}	*SE*	*95% CI*	M_{Diff}	*SE*	*95% CI*
neutral - negative	3.24	0.01	[3.21 3.28]	1.18	0.02	[1.14 1.22]
positive - negative	4.30	0.01	[4.26 4.33]	0.45	0.02	[0.40 0.49]
positive - neutral	1.05	0.01	[1.02 1.09]	0.73	0.02	[0.70 0.78]

For the categorization of the moral foundations, we computed percentages for the categorization across all scenarios of one moral foundation (Figure 4) and separately for each moral scenario (Appendix A, Table A2). Only for the care foundation the criterion of categorizing the items into the intended category for at least 60% and no more than 20% in any other category was reached. Taken negative and positive scenarios together, 13 items met the criteria for care (4, 5, 7, 8, 12, 17, 22, 25, 28, 29, 30, 34, 38), two scenarios for fairness (44, 51), two for authority (84, 104), and none for purity and loyalty. Taking negative and positive scenarios separately, 91 items (40 care, 13 fairness, 8 authority, 2 purity, 0 loyalty, and 28 neutral items) met both criteria.

To select the most fitting items for future research, we focused on the valence ratings as most important selection criterion. To extract items that have a high selectivity across all three moral categories, we first determined the mean distance for each scenario to the median of its corresponding valence category. Next, we clustered the positive, negative and neutral version of each scenario and computed the mean distance for those clusters by aggregating their respective distances. The 150 most selective items across all three moral categories were ranked in ascending order of their mean distances (see Appendix A, Table A3).

Figure 4

Percentages for the categorization into the moral foundations based on the intended category



Discussion

Our goal was to generate a comprehensive set of everyday moral scenarios in parallel versions for negative, positive and neutral behavior. We validated the scenarios based on the dimensions of moral valence and arousal and regarding their underlying moral foundation. The group means of the constructed moral categories were in accordance with the moral valence ratings. Negative scenarios were rated as more negative than neutral and neutral more negative than positive scenarios. For the arousal rating, positive and negative scenarios were rated as more arousing compared to neutral scenarios. In addition, a more extreme score in the valence ratings for negative and positive scenarios correlated with higher arousal ratings, which is in line with previous findings for emotional stimuli (e.g., Bradley & Lang, 1994). However, we also found an arousal bias for negative scenarios, which were rated as more arousing compared

to positive scenarios. This negativity bias is common for arousal and has previously been found in studies of emotion (e.g., Carretié et al., 2001) but also in studies of moral judgments (for a review, see Rozin & Royzman, 2001). For moral judgments, Guglielmo and Malle (2019) found extremity differences for blame and praise. Greater blame was assigned to negative behavior than praise to positive behavior, which also speaks in favor of a negativity bias. However, in comparison to their findings, the positive and negative scenarios in our study were, on average, rated similarly extreme in terms of their valence. The main purpose of the creation and validation of this stimulus set is to have appropriate stimuli for future EEG studies (see Study 3). Thus, it is important to have a balanced stimulus set for both, valence and arousal, to eliminate these factors as potential confounds (Yuan et al., 2019). However, as Crone et al. (2018) noted in their validation study of moral stimuli, it is rarely possible to fully balance arousal in emotional stimulus sets. Similarly to our study, higher arousal ratings for negative compared to positive stimuli have also been found in other validation studies (e.g., Dan-Glauser & Scherer, 2011). To conclude, the arousal difference between negative and positive scenarios is not uncommon for stimuli of this type. However, especially for their use in neuroscientific studies, this difference should be noted as a potential confound.

The categorization of the stimuli into the moral foundation categories was only successful for a small set of scenarios. Our results support the assumption that care and fairness items are more universal as they were categorized correctly compared to items of the other moral foundations. For political orientation, care and fairness items are mostly endorsed by progressives and loyalty, purity, and authority rather by conservatives (Graham et al., 2009). Similarly, loyalty, purity, and authority have been linked to higher religiousness (Johnson et al., 2016). Our sample was overall progressive and non-religious. Potentially, progressive and non-religious people do not only endorse loyalty, purity and authority to a lower extend than conservative and religious people do but also have a lower sense for the violation or adherence of a moral norm for these items. This might have let to difficulties in the categorization. Future

studies should aim at a more balanced sample concerning political orientation and religiousness, especially if moral foundation theory is a key component.

Apart from personality variables that might have influenced the categorization, there is criticism to the comparability of the foundations in moral foundations theory. For instance, Gray and Keeney (2015b) claim that differences in harm and purity violations might actually stem from the content's severity and weirdness. In their study, purity items were rated as weirder and as less severe than descriptions of harm. Further, in the study on which the dimensional moral model was based, purity concerns could not be distinguished from harm concerns (Gray & Wegner, 2011). Therefore, the modules described in moral foundations theory might actually not be distinct (Gray & Keeney, 2015a). In our study, we combined the dimensional moral model and moral foundations theory in the development of our scenarios. The incompatibility of the theories might have led to the insufficient categorization into the moral foundations. More criticism of the moral foundations theory has focused on the inter-individual stability of the foundations across time (Smith et al., 2016) and the taxonomy of the moral foundations (Suhler & Churchland, 2011). According to Suhler and Churchland (2011) there are equally good foundation candidates to categorize morality. Instead of focusing on moral foundations theory, future validation studies of moral scenarios could for example focus on the categorization into underlying moral emotions.

We cannot give a general recommendation on which items of our stimulus set to use in future studies. The selection of a fitting stimulus set is a complex process and highly depends on the study aim as well as the applied methods. For studies that focus on differences in moral valence, which was the main intend for generating and validating these items, the first selection criterion should be based on the item selectivity based on the valence ratings. As a second criterion, the arousal ratings can be used to balance the negative and positive items. Our items are not suitable for the investigation of the underlying moral foundations, unless only a small

item pool of care and fairness items is necessary. However, for a study with a larger set of items, it can still be useful to select items that vary in moral foundation to have a more diverse item set.

Conclusion

In this study, we created a parallel set of moral scenarios of everyday behavior. To our knowledge, this set of scenarios is not only one of the largest (German) sets of moral scenarios but the very first that includes positive, negative and neutral actions within the same setting. The set of items provides a good selection for a variety of studies of moral behavior. Especially for neuroscientific studies, it is an ideal basis for the investigation of emotions in moral judgments because the items can be controlled for valence and arousal.

Personality shapes our moral judgments: The influence of empathy, political orientation, and gender

Abstract

We continuously evaluate people and their behavior on the basis of our own values and moral standards. However, most studies that have investigated moral judgments used exaggerated moral scenarios that are rare in everyday life, did not include positive moral behavior, and presented behavior detached from the people who act in a moral or immoral manner. The present study addressed these shortcomings in a moral judgment task using 90 scenarios that varied in moral valence, and were presented together with neutral faces of a moral agent or patient. In addition, we assessed how empathy, political orientation, and gender of the participants influence their moral judgments. As predicted, judgments of negative and positive moral behavior differed from neutral behavior. For positive scenarios, gender was a significant predictor, with females evaluating positive behavior as more helpful than males. For negative scenarios, a significant gender x empathy interaction indicated that empathy, to a small extent, increased the negative evaluation, especially in female participants. Our results fit into previous research that consistently finds small empathy and gender differences, which are potentially rooted in gender stereotypes. For neutral scenarios, conservatives compared to liberals rated the scenarios as more helpful. This might be due to an enhanced emotional reactivity of conservatives. In conclusion, empathy, gender, and political orientation seem to play a significant role in the development of moral judgments.

Keywords: Moral judgment, empathy, gender, political orientation, face perception

STUDY 2

Introduction

What are the determinants of moral judgments? Traditional models postulate that moral reasoning is a conscious and controlled process (e.g., Kohlberg, 1969; Piaget, 1933). Two influential theories that challenged this presumption were put forward in the early 2000s: the *social intuitionist model* (Haidt, 2001) and the *dual process theory* (Greene et al., 2001). Both theories emphasize that affects and emotions play an important role in moral reasoning.

The idea that judgment and decision making is guided by emotion is also a major tenet in other theoretical approaches (e.g., *somatic marker theory*, Damasio et al., 1991; *affect heuristic*, Slovic & Peters, 2006). Relying on instincts or including affective responses seems evolutionary reasonable, as they lead to an efficient use of resources (Darwin, 1872/1965). Even if it is not conclusively determined how exactly emotion and reason interact, emotion definitely seems to play an important role in moral judgments.

The current study aims to investigate how people morally judge harmful, helpful, and neutral behavior of an agent towards another person, and how this judgment is influenced by empathy, gender, and political orientation. Most studies on moral judgment have three major shortcomings: First, previous studies typically used exaggerated and unrealistic dilemmas, such as variants of trolley dilemmas in which a fat man is pushed from a bridge, or the organ transplant dilemma in which an arbitrary person from the street is killed to obtain their healthy organs. Critics argue that these situations do not represent everyday life and thus are hardly or not at all suitable for studies on morality (e.g., Capraro & Sippel, 2017; Clifford et al., 2015; for a review see Kahane, 2015).

Second, positive or courageous behavior is often overlooked in studies of moral judgments, which are mostly comprised of moral transgressions (e.g., Clark et al., 2020; Leuthold et al., 2014). Morally positive behavior is rarely labeled as such unless it puts the agent in question in considerable risk. The social expectation is that individuals will help when

they see someone in need. Not doing so would be seen as a violation of a social norm rather than a courageous act. However, morally positive scenarios are equally important to depict daily social interactions.

Third and most importantly, the material that is used in moral research often focuses on actions rather than the person who commits them. Uhlmann et al. (2015) argue that when asked for a judgment, observers do not ask themselves whether an action is right or wrong but rather focus on a person's goodness or badness. Similarly, Hester and Gray (2020) have pointed out that studies often present scenarios in which the identities of the characters are either unspecified or vague. For example, asking whether people generally condemn "shooting someone" is very different from asking whether liberals as opposed to conservatives condemn "a White police officer shooting a Black suspect." Hester and Gray (2020) therefore argue for the importance of incorporating identity into moral psychology. This person-centered approach is theoretically elaborated in Gray and Wegner's *dimensional moral model* (2011), which follows the structure of the two dimensions of moral valence (harm/help) and moral type (agent/patient). Crossing those two dimensions results in an agent who commits a morally positive or negative action towards a patient who is the recipient of the agent's action.

Empathy has been described to facilitate the access to an emotional response in moral judgments (Pizarro, 2000). A number of studies found that people vary in their moral behavior based on differences in empathic capacity (Cecchetto et al., 2018; Gleichgerrcht & Young, 2013; Patil & Silani, 2014). Decety and Cowell (2015) argue that empathy does not by itself lead to moral decisions but the emotional responses amplified through empathy, especially regarding care and justice violations, have been suggested to influence normative judgments. This assumption is also supported by studies showing that higher empathic concern is related to an emotional aversion to harm, and lower empathy to rational choice that maximizes welfare (Gleichgerrcht & Young, 2013). In moral judgments, empathy seems to facilitate prosocial

tendencies. It gives people an understanding of how they are emotionally affected by an action and can explain the motivation to act in accordance with some moral principles (Ugazio et al., 2014). Other studies show that the involvement of empathy in moral judgments highly depends on the target of the and the type of action (e.g., Koenigs et al., 2007; Ugazio et al., 2012). To adequately stimulate the involvement of empathy, it is of importance to use moral descriptions that include a personal connection between the protagonists of the scenarios. Higher empathy can signal when something morally relevant is taking place (Pizarro, 2000). Thus, empathy is an important factor of moral judgments.

Political orientation is shaped by one's culture and value systems and in turn influences fundamental decisions regarding the kind of society one wants to live in (Harman, 2018). In this respect, political orientation is another important source for moral principles. Several studies have found differences between conservatives and liberals concerning moral evaluations (Graham et al., 2009; Tritt et al., 2013). Conservatives show enhanced emotional reactions to moral dilemmas (e.g., Lane & Sulikowski, 2017), a lower threshold for emotions (e.g., Hibbing et al., 2014; Jost et al., 2003; Oxley et al., 2008; Tritt et al., 2016), and rely on a broader variety of moral dimensions and emotions when making a moral judgment (e.g., Eskine et al., 2011; Inbar et al., 2012). In addition, it was found that conservatism compared to liberalism might be rooted in higher emotional arousal (Tritt et al., 2013). By contrast, liberals show a flattened reactivity towards moral transgressions (Tritt et al., 2016), and base their moral judgments on a narrower set of moral principles, which are primarily care and justice related (Graham et al., 2009). Apart from moral judgments, liberals compared to conservatives have been described as more caring (Waytz et al., 2016), which is seen as a proxy for empathic behavior. A study across several nations has shown that liberals not only report to feel more empathy towards others, but they are also more willing to help (Hasson et al., 2018). Both empathy and political orientation therefore seem to have an influence on moral judgments but might also be related independent of moral judgments. Therefore, it is of interest to look both

at the influence of political orientation on moral judgments but also at its connection with empathy.

Gender is a variable that is discussed and examined broadly; it is often considered in studies of morality (Baez et al., 2017; Capraro & Sippel, 2017; Friesdorf et al., 2015; Fumagalli et al., 2010) and has been shown to influence human moral decisions (Donenberg & Hoffman, 1988). Traditional explanations rooted in evolutionary theories and animal behavior claim that females as primary care-givers show a higher emotion recognition and empathy (Christov-Moore et al., 2014). In addition, females have been described as driven by intuition and emotion in moral decision making and moral judgment, whereas males are described as more rational (e.g. Fumagalli et al., 2010). However, the observed differences between females and males in care and justice-related issues are mostly too small in effect size (d = 0.19 - 0.28) to support the claim of a profound gender effect (Jaffee & Hyde, 2000).

Gender differences are not only reported for morality but also with regard to empathic capacity. Many studies on morality (Cecchetto et al., 2018; Friesdorf et al., 2015; Fumagalli et al., 2010) have in common that affective responses towards moral transgressions are in females more highly correlated with empathic capacity than in males. Since empathy and gender are related and both influence moral judgments, it is important to consider empathy and gender not only individually as predictors of differences in moral judgments but also in their interaction.

The present study has two aims: First, it focuses on how people judge moral behaviors of a visually presented agent towards a patient. The agents were represented by neutral faces of unfamiliar individuals. We placed the agents and patients in everyday situations with negative, positive and neutral (baseline) moral behaviour. The second aim was to investigate how empathy, political orientation, and gender affect moral judgments for the scenarios. In addition, we wanted to investigate whether empathy and political orientation are related.

We tested the following hypotheses: (1) Participants will morally evaluate helpful (positive) and harmful (negative) behavior different from neutral behavior. (2) We expect an interaction of gender and empathy that will influence the judgment of harmful and helpful behavior but not of neutral behavior. More specifically, we expect that females compared to males and more empathic compared to less empathic people will more strongly differentiate between positive and negative behavior. (3) Conservative people will show more negative ratings for morally harmful and more positive ratings for helpful descriptions compared to liberals. We do not expect a different ratings based on political orientation for the neutral condition. (4) Empathy and political liberalism will show a positive correlation.

Methods

Participants

The sample size was determined based on previous similar studies from our lab for which a priori power analyses were performed. In addition, we compared the determined sample size to other studies that investigated the influence of gender and empathy on moral judgments (e.g., Eisenberg et al., 2001; Fumagalli et al., 2010; Patil & Silani, 2014), which were either similar in size or exceeded by our target sample size of 200 participants. We recruited 228 German native speakers from the University of Goettingen and the local community through postings at the university campus and at a job exchange website. Fourteen participants were excluded because they did not match the pre-defined age range or because of comprehension difficulties due to language limitations. This left a total of 214 participants (115 females, 99 males, M_{age} = 23.41, SD = 2.75 years).

Materials

We used 180 face images with neutral facial expressions that were taken in individual photo sessions in a different study. Face stimuli were cropped to remove hair and ears, and were

matched for size and luminance. The photos were validated on the neutrality of their facial expressions (Kulke et al., 2017).

For the present study 106 short written scenarios were constructed, based on the *dimensional moral model* by Gray and Wegner (2011). The scenarios consist of descriptions of an agent committing an act towards a patient and differ with regard to the harmfulness or helpfulness of the committed act. They are similar in length and semantic details, and were written without using any explicit emotion terms. Importantly, the scenarios avoided any description of physical disgust as it has been shown that disgust is closely connected to moral judgments (e.g., Royzman et al., 2008; Schnall et al., 2008). Moreover, help or harm were not chance events but always intended by the agent. To reduce cognitive load and keep scenarios similar mixed gender scenarios were developed that were plausible for both male and female agents and patients. In a separate rating study (N = 45) the dimensions of valence, morality, and plausibility were assessed. Based on these ratings 30 scenarios that clearly differed in terms of the three moral categories (positive/helpful, negative/harmful, neutral) were chosen for the present study.

Questionnaires assessing political orientation and empathy

Political orientation was measured using the *Konservatismusskala* (König & Frank, 2000), a revised German version of the conservatism scale by Wilson and Peterson (1968) with 41 items. Items indicating conservatism were inversely coded such that higher scores reflect more liberal political beliefs on a scale from 1– 4. The data of the political orientation questionnaire were normally distributed in our sample with a mean of 3.09 (SD = 0.29, *range* = 2.03 - 3.71), which indicates that our sample overrepresented liberals. This might be due to the student sample and has also been reported in other studies that included the measurement of political orientation (cf. Dollinger, 2007). Cronbach's α of this sample was .87.

Empathy was measured with the *Saarbrücker Persönlichkeitsfragebogen* (SPF; Paulus, 2016), a German version of the Interpersonal Reactivity Index that includes the subscales *perspective taking*, *fantasy*, and *empathic concern*. It included a total of 12 items with a five-point scale where *1* = little empathic and *5* = very empathic. The data for empathy were normally distributed with a sample mean of 3.64 (*SD* = 0.51, *range* = 2.25 - 4.75). Paulus (2016) reported Cronbach's α of .75 - .79. In our sample the overall α is .80.

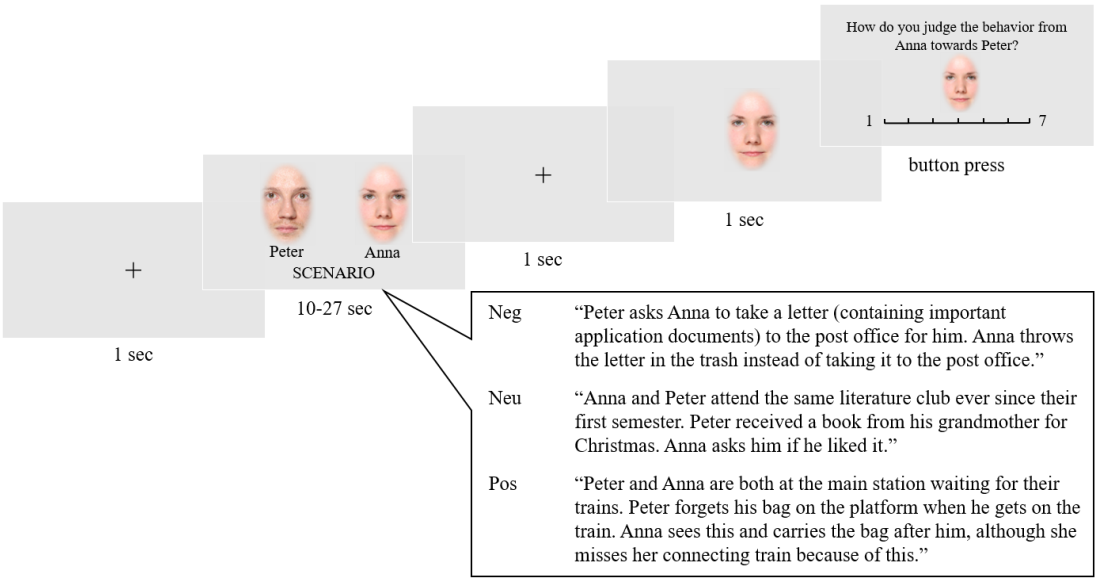
Procedure

The study was approved by the ethics committee of the Department of Psychology at the University of Goettingen. Participants were tested in groups of 4 - 10 subjects in a laboratory with view-protected cabins. The Python-based visual stimulus system PsychoPy (Peirce, 2007) was used to present and record the data. After reading the instructions, participants were familiarized with the experimental setting in a short training session comprised of stimuli that were not included in the main experiment. The main experiment presented 30 scenarios for each moral valence (negative, neutral, positive) yielding a total of 90 trials with 180 different characters (agents, patients). Trials were presented block-wise with 10 trials per block (see Figure 5). Each trial started with the presentation of a black fixation cross for 1 second that was followed by the presentation of two faces that were simultaneously presented (one female, one male). The faces were shown together with two names that were randomly drawn from a list of common German names and matched for gender. After a minimum viewing time of 3 seconds, participants were shown a randomly drawn scenario when they pressed a button or it was shown automatically after a maximum viewing time of 7 seconds. The names of the agent and patient mentioned in the scenario were matched with the names underneath the faces. The genders of the agent and patient were randomized for each trial throughout the condition with each scenario and name only occurring once in the whole experiment. The minimum viewing time of the scenario was 7 seconds to ensure that the participants memorized the described action as well

as the associated faces. The following screen was displayed automatically after a maximum viewing time of 20 seconds. In order to direct the focus to the center of the screen, another fixation cross was presented for 1 second and was followed by a 1 second presentation of one of the faces shown in the trial. In 50% of the cases the face was an agent and in the remainder it was a patient. Over the whole experiment, the face was in 50% of the trials a female and 50% a male person. Each trial ended with a rating of the action from the agent towards the patient with a mouse click on a 7-point rating scale. Participants were asked *"How do you judge the behavior from [Name Agent] towards [Name Patient]?"* on a scale from *1 = very harmful* to *7 = very helpful.* To ensure full attention on the faces a memory task was included in 20% of the trials. Participants could earn an additional bonus of 30 cents for each correct answer on whether a face had been present in the previous trial. After completing the task, participants filled out questionnaires to measure political orientation and empathy. Participants were reimbursed with 5€ per hour or course credit plus a bonus up to 5.40€.

Figure 5

Trial scheme of the task in the main experiment including examples of the scenarios



Statistical analyses

Statistical analyses were conducted in R (version 3.5.2; R Core Team, 2019). To investigate whether moral valence, gender, political orientation, and empathy influenced the morality rating we implemented a Linear Mixed Model (LMM) using the lmer function from the lme4 package (Bates et al., 2015). We included moral valence (negative, neutral, positive), gender (female, male), political orientation, and empathy as fixed effects, and the two-way interactions of moral valence x political orientation, moral valence x gender, and moral valence x empathy, as well as the three-way interaction of moral valence x empathy x gender. We also included by-subject random intercepts in order to control for individual differences and by item-random intercepts to control for differences of the scenarios. The empathy scores and political orientation scores were z-transformed before being included in the analyses. Normal distribution and homogeneity of variance were tested by visually inspecting Quartile–Quartile-Plots (QQ-plots) and residual plots. We tested for model stability by excluding subjects one at a time and comparing the model estimates derived from these subjects with those from the full data. This analysis indicated that no influential subjects exist. VIF was derived using the vif function from the R-package car (Fox et al., 2012); it did not indicate collinearity to be an issue. As an overall test of the fixed effects and their interactions, we compared the full model to the respective null model lacking the fixed effects but comprising the same random effects structure using a likelihood ratio test (Fox et al., 2012; R function anova with argument test set to "Chisq"). To test for individual interactions, we dropped them one by one, and compared the reduced model excluding the interaction to the full model including the interactions using likelihood ratio tests (Barr, 2013; R function drop1). According to our hypotheses, we had different expectations for the three moral valences (negative, neutral, positive). To disentangle the significant differences of the interactions we therefore computed separate models for each moral valence including gender, empathy, their interaction, and political orientation as fixed effects and participant and item ID as random effects. The procedure was the same as for the

overall model. Lastly, to investigate the relationship of empathy and political orientation, a Pearson correlation was computed (function cor.test of the stats package, R Core Team, 2019).

Results

The means of the morality ratings (ranging from *1 = very harmful* to *7 = very helpful*) were $M = 1.61$ ($SD = 0.84$) for the negative/harmful, $M = 4.62$ ($SD = 0.91$) for the neutral, and $M = 6.39$ ($SD = 0.88$) for the positive/helpful scenarios. Overall, the model including moral valence, gender, empathy, political orientation, moral valence x gender x empathy and moral valence x political orientation was significant ($\chi 2 = 605.83$, $df = 14$, $p < .001$, $R^2_{marginal} = 0.84$) in comparison to the null model (see Table 3). This result indicates an overall effect of the predictors on the judgments. More specifically, we found that the three-way interaction of moral valence x gender x empathy ($\chi 2 = 63.58$, $df = 3$ $p < .001$), and the interaction of moral valence x political orientation ($\chi 2 = 89.99$, $df = 2$, $p < .001$) had a significant impact on the morality ratings. There was a significant difference between helpful and neutral scenarios ($t = 17.90$, $df = 1$, $p < .001$) as well as between harmful and neutral scenarios ($t = -30.43$, $df = 1$, $p < .001$).

In order to distinguish which of the predictors drove the interactions, separate models for each moral valence were computed. The overall model for the helpful/positive scenarios was significant ($\chi 2 = 12.68$, $df = 4$, $p = .013$, $R^2_{marginal} = 0.02$). Gender was a significant predictor for morality ratings, with females judging helpful behaviors as more positive/helpful than males ($t = 2.05$, $df = 1$, $p = .040$). The empathy x gender interaction, empathy, and political orientation did not have any influence (all *p*s > .05). The overall model for the harmful/negative scenarios was significant ($\chi 2 = 10.88$, $df = 4$, $p = .028$, $R^2_{marginal} = 0.01$). Here, a significant gender x empathy interaction ($t = -1.99$, $df = 1$, $p = .047$) reflected that more empathic participants evaluated harmful actions as more morally negative than less empathic participants, and that these differences were larger for females than for males. No influence of political orientation could be observed ($p > .05$). For the neutral scenarios, the overall model was

significant ($\chi 2$ = 14.66, *df* = 4, *p* = .005, $R^2_{marginal}$ = 0.01), but neither empathy, gender, nor their interaction had a significant impact on the morality ratings (all *p*s > .05). Political orientation impacted the morality ratings, with liberal people rating neutral scenarios as less helpful compared to conservative people (*t* = -3.66, *df* = 1, *p* < .001). Figure 6 depicts the influence of the gender x empathy interaction and the main effect of political orientation on the moral judgments. Lastly, the correlation between empathy and political orientation was significant with liberals showing higher empathy scores compared to conservatives (R^2 = 0.22, *p* = .001, 95% CI [0.09, 0.34]).

Table 3

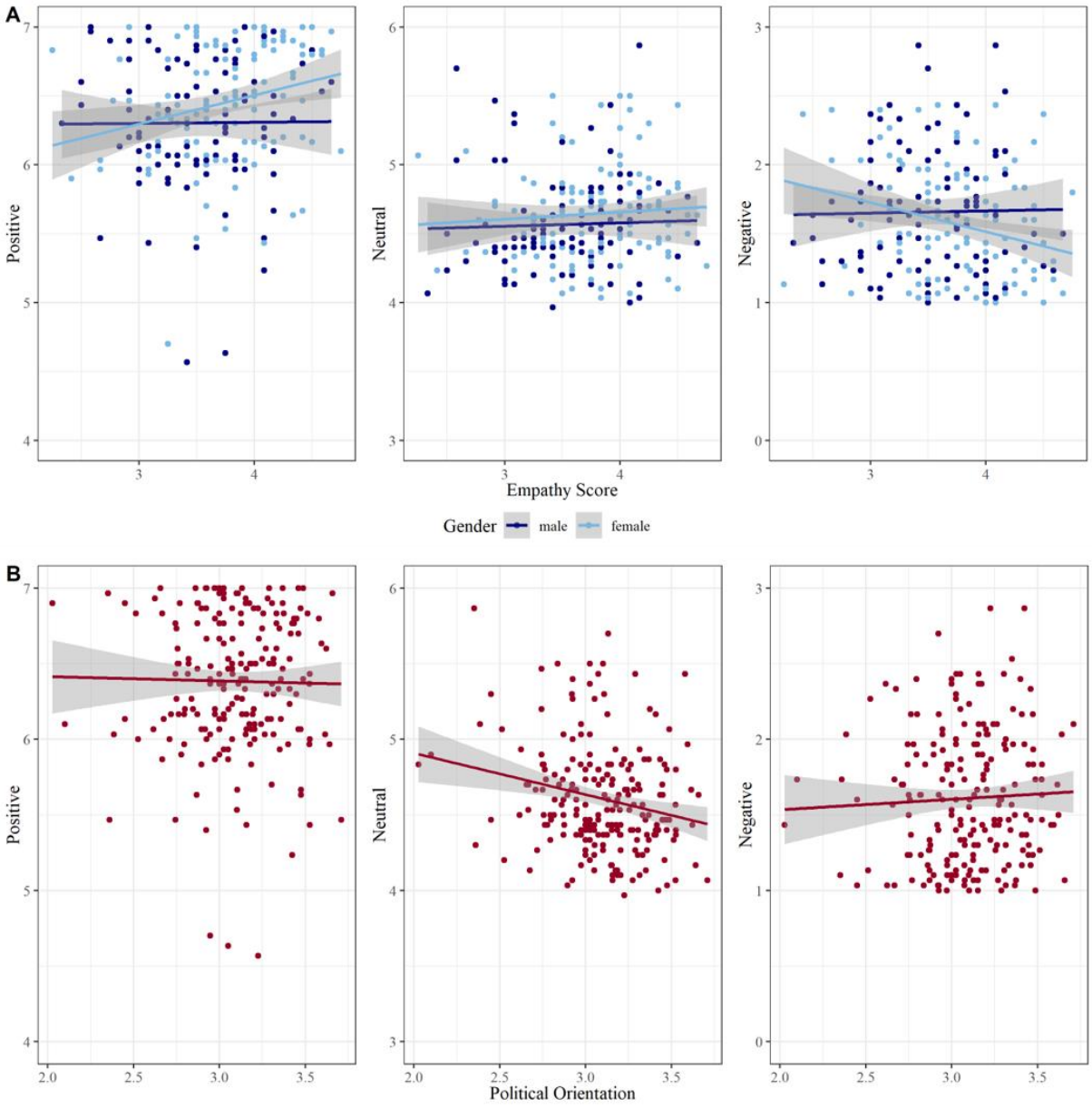
Main effects and interactions for the three models of each moral valence

	Likelihood Ratio Tests					
helpful (pos)	*Estimate*	*SE*	*t*	*p*	CI_{lower}	CI_{upper}
intercept	6.30	0.07	93.71		6.169	6.436
empathy(1)	0.01	0.05	0.19	.849	-0.824	0.100
gender	0.13	0.06	2.05	**.040**	0.005	0.253
political orientation(1)	-0.03	0.03	-0.98	.332	-0.092	0.031
gender x empathy	0.10	0.06	1.67	.096	-0.019	0.229
harmful (neg)						
intercept	1.66	0.07	25.18		1.531	1.793
empathy(1)	0.00	0.04	0.04	.968	-0.085	0.088
gender	-0.07	0.06	-1.22	.222	-0.191	0.045
political orientation (1)	0.04	0.03	1.32	.190	-0.019	0.098
gender x empathy	-0.12	0.06	-1.99	**.047**	-0.237	-0.011
neutral						
intercept	4.58	0.10	45.87		4.384	4.786
empathy(1)	0.03	0.04	0.71	.474	-0.049	0.104
gender	0.06	0.05	1.10	.271	-0.046	0.161
political orientation(1)	-0.96	0.03	-3.66	< **.001**	-0.147	-0.044
gender x empathy	0.02	0.05	0.42	.674	-0.081	0.126

Note. (1) empathy and political orientation were z-transformed to a *M* = 0 and *SD* = 1; original means (*SD*) were: empathy = 3.64 (0.51); political orientation: 3.10 (0.29).

Figure 6

Influence of (A) the *gender x empathy interaction, and (B)* of *political orientation on the morality ratings*



Note. (A) The figure shows the mean values for the influence of empathy (1= little empathic - 5= very empathic) and gender on the morality ratings separately for each valence condition (negative, neutral, positive). (B) The figure shows the mean values for the influence of political orientation (1= very conservative – 4= very liberal) on the morality ratings, separately for each valence condition.

Discussion

Our results show that moral judgments can be shaped by both item-related and person-related variables as well as their interactions. Interestingly, there is an uneven pattern in the extent to which the moral valence (positive, negative, neutral) of the scenarios and of the person-related variables empathy, gender, and political orientation impacted morality ratings.

Our first hypothesis was confirmed: Judgments of positive and negative behavior differed from those for neutral scenarios. Participants successfully formed a comprehensive impression of a person through the associated scenario although no description of emotion was used. In our study, negative and positive actions were clearly judged as such and deviated equally from the mean rating of 4. Whereas a negativity bias in emotion processing was observed by other researchers for the processing of neutral faces that are associated with socially relevant information (e.g., Abdel Rahman, 2011; Suess et al., 2014) and for moral judgments (e.g., Rozin & Royzman, 2001) our findings do not confirm these findings. The neutral scenarios in our study were on average rated as slightly positive. This shift to more positive judgments might reflect that an action performed by one person towards another person is almost never completely neutral. In everyday life, expected behavior is typically evaluated as polite, and therefore slightly positive, even though it does not carry any moral value (Sears, 1983). Since we kept the structure for the neutral scenarios the same as for positive and negative scenarios, the neutral actions were sometimes slightly favorable. However, when considering the mean rating of the neutral condition as the neutral baseline instead of a mean rating of four, we actually did find a pattern that can be interpreted as a negativity bias because the distance between the mean neutral and the negative judgment is larger than between the neutral and the positive judgment. Thus, it makes a difference how the neutral baseline is defined.

Our second hypothesis was partly supported by the data. Females judged positive scenarios as more helpful than males. For negative scenarios, females showed lower scores in

the morality ratings than males, which was additionally modulated by their increased empathy scores. As expected, there was no influence of gender or empathy for neutral scenarios. Our results are consistent with studies demonstrating that females are more sensitive to ethical misconduct and are more concerned for the welfare of others than males (Barnett et al., 1998; Y. Lee et al., 2018). Gender differences were previously reported in a meta-analysis that indicated females to be more care- and men to be more justice-oriented in their moral evaluations (Jaffee & Hyde, 2000). However, across all studies included in the meta-analysis the effect sizes were small. Notably, most studies that investigated influences of gender on moral judgments only considered negative behavior (e.g. Baez et al., 2017; Fumagalli et al., 2010; Greene et al., 2001). Our results show that females are not only more sensitive to morally reprehensible behavior but also to helpful behavior. Therefore, our study does not only replicate previous findings but extends them to positive moral behavior, showing that, overall, females have a tendency to more extreme moral judgments.

Contrary to our hypotheses, the gender by empathy interaction was only observed in judgments of negative but not of positive scenarios; we found more negative judgments by females with higher empathy scores than by less empathic females and males. However, this interaction does not seem to be rooted in unequally strong evaluations for positive and negative scenarios. According to Pizarro (2000), empathy facilitates the access to an emotional response in morality. Singer et al. (2006) reported reduced activations of emotion-sensitive brain areas, that is, the insula and the anterior cingulate cortex, in males compared to females when they watched unfair people receiving pain. In males, empathic responses were dependent on the observed action, whereas for females, the activation did not depend on ethical or unethical behavior by others. In summary, empathy can be understood as an emotional factor influencing moral reasoning; it might precede and thereby influence the deliberate judgment that follows afterwards (Greene et al., 2001; Pizarro, 2000). However, an influence of empathy is only

observed for reprehensible behavior and should further be interpreted with caution, as not only our results but also others show only small effect sizes (e.g., Efferson et al., 2017).

Considering the small effects of empathy and gender on moral judgments, we would like to outline two factors that might have contributed to the differences between our and previous findings. First, it has been found that the more relatable a scenario is to oneself (e.g., through familiarity or social proximity), the more care-oriented the response is towards others (Ryan et al., 2004). In their study, Ryan et al. (2004) found that females were more likely to take a care-approach than males. The set of scenarios that was used in our study describes actions that mainly violate or adhere to concerns of harm and fairness. A previous study on moral foundations and psychopathy demonstrated that females reported more concern to violations of harm, fairness, and purity than males; a significant interaction of psychopathy (often seen as the counterpart of empathy) and gender in relation to harm and fairness violations was also observed (Efferson et al., 2017). Females were in general more inclined to prevent harm, whereas both males and females scoring high in psychopathy were less inclined to prevent harm and fairness. In future studies, scenarios should be balanced with regard to the underlying moral dimension to get a clearer picture of what exactly drives these gender differences.

Second, gender differences in moral judgments might be attributed to internalized gender norms (Hyde, 2014). As for empathy, it is a widely held norm found in different cultures that females are not only more emotional but also more empathic gender than males (Ickes et al., 2000). In accordance with this assumption, higher scores for empathy of females have indeed been found in self-assessment studies (Baez et al., 2017; Gaunt, 2013; Klein & Hodges, 2001). Based on the divergent findings Ickes et al. (2000) concluded that gender differences in empathy should be attributed to motivational and not ability differences. Much research on morality and empathy has focused on studying gender differences, whereas, similarities

between the genders receive little attention in current scientific discourse (Hyde, 2005). This likely has led to overinflated claims for differences, when in fact most of the reported gender effects in psychological research are small or close to zero (Hyde, 2014). The small differences might stem from disparate expectations towards females and males and might fluctuate when considering context and other confounds (Hyde, 2005). Therefore, it is important to emphasize that although we find small differences between genders with respect to empathy and moral judgments, there are still more similarities among genders than there are differences.

Contrary to our hypothesis, political orientation only influenced the judgments of neutral scenarios but not of the positive and negative scenarios. The positivity bias that was observed in the neutral condition was additionally enhanced for conservative participants, who judged neutral behavior as more helpful than liberals. This contradicts research showing that conservatives are more prone to a negativity bias (for a review, see Hibbing et al., 2014). An alternative explanation is that there are differences in the emotional reactivity instead of differences based on moral valence. In line with this hypothesis, it was found that conservatives compared to liberals anticipate and experience stronger emotional reactions (Joel et al., 2014). Supporting evidence for this hypothesis also comes from an EEG study indicating that conservatives have an enhanced activation specifically to low-arousing and neutral stimuli (Tritt et al., 2016). Similarly, an imaging study found greater activation in the right amygdala in conservative compared to liberal people during a risk-taking experiment, which was explained with a greater sensitivity of conservatives to threatening stimuli (Schreiber et al., 2013). In our study, there was a shift towards a more positive judgment for neutral stimuli for conservatives. Neutral stimuli might have evoked an emotional reaction in conservatives due to their enhanced emotional reactivity. Although the differences in emotional reactivity for conservatives and liberals provide an explanation as to why we found differences in the neutral condition, it is still surprising that there was no difference in the positive and the negative condition. Another study that looked at the influence of political orientation and gender on

moral judgments also did not find clear differences between the genders and political orientation (Banerjee et al., 2010). They conclude that while there were some differences in the predicted direction, they were too small and inconsistent to truly account for the morality of a person.

In accordance with our hypothesis, we found a correlation between empathy and liberalism. It seems that this correlation is quite stable, as it is consistently found in studies with different experimental designs and across different cultures (e.g., Farwell & Weiner, 2000; Hasson et al., 2018; Patané et al., 2020). However, critics argue that the differences between conservatives and liberals regarding empathy can be explained by whom they emphasize with rather than by a general lack of empathy of conservatives (Waytz et al., 2016). Whereas liberals show empathy towards larger social circles, conservatives might express empathy towards smaller circles and in-group members. Another study suggests that the correlation between liberalism and empathy is rooted in religiousness (Schieman et al., 2019), which might be an important covariate to be considered in future studies.

Although we have attempted to remedy some of the shortcomings of other studies, there are limitations of our study that should be considered in future research. It was important to include all types of morality of the *dimensional moral model*, including a neutral baseline, in our study. We therefore showed faces of agents and patients involved in neutral, negative and positive moral scenarios. However, we always asked for a judgment of the agent's behavior towards the patient, which did not allow us to determine to which extent the agent's act and the patient's well-being influenced the judgment process. We focused on the agents to make the scenarios very similar, but follow-up studies should focus on both agents and patients.

Conclusion

We showed that moral evaluations are sensitive to the valence of the act and are, to some extent, influenced by gender, empathy, and political orientation. A positive aspect of our study

relative to previous research was that it used a relatively large set of moral scenarios, which also included morally positive behavior. A novel feature was also that we presented agents and patients involved in the scenarios by showing their faces. Our study shows that there seems to be an interplay of emotional and rational processes in moral judgments. To gain a better understanding of how rationality and emotion interact, psychophysiological methods might be a suitable option to disentangle the underlying processes.

How we judge moral agents: an investigation of emotion and political orientation using EEG

Abstract

Research has found that moral agents are judged on basis of the goodness or badness of their actions. Further, studies suggest that variations in political orientation result in differing physiological activations, such as conservatives showing stronger reactions towards moral, emotional, but also neutral stimuli compared to progressives. In this study, we presented moral agents by pairing a neutral face with a morally negative, positive, or neutral scenario. We preselected 20 conservative and 20 progressive participants who took part in an EEG recording. On a behavioral level, we found that the likeability of moral agents varies based on the valence of their behavior as well as their gender. Harmful agents were rated as less likeable and helpful agents as more likeable compared to neutral agents. In addition, harmful males were rated as less likeable compared to harmful females. The likeability ratings did not differ between conservative and progressive participants. On a neural level, we found preliminary evidence that the LPP, an ERP component reflecting higher-order processing of relevant information, was modulated by an interaction of valence and political orientation. While conservative participants showed a generally higher and similar pattern across all valence conditions, progressives showed an enhanced amplitude for positive agents, which was comparable to all conditions for the conservatives, but a lower amplitude for neutral and negative agents. This bias for positive moral information contradicts other EEG studies that found a processing advantage for negative emotional stimuli. Our results indicate that the underlying processes might be more complex when considering them in the framework of moral judgments and political orientation, especially when morally positive behavior is included in the study design.

Keywords: moral judgments, event-related potentials, EEG, political orientation, emotions

Introduction

In situations where we meet strangers, it is important to make a quick assessment of the other person. Simple cues can help to gain a better impression, and thereby, to evaluate whether to approach or keep distance. Research found that this impression formation is not only fast but can also be done with limited information (Todorov et al., 2007, 2009; Willis & Todorov, 2006). In social judgments, a person's moral behavior is a good indicator of their character (Goodwin et al., 2014). To gain a comprehensive impression, it can therefore be particularly helpful to observe a person's actions. For instance, it has been found that participants make more risky choices with a partner whose moral actions are praiseworthy (Delgado et al., 2005). A growing body of research has found that in moral judgments, emotions play a vital role, which is not only observable in behavior but also in neural responses (C. D. Cameron et al., 2017; Cannon et al., 2011; Cowell & Decety, 2015; F. Cui et al., 2016; Decety & Cacioppo, 2012; Decety & Yoder, 2016; Sarlo et al., 2012; Singer, Kiebel, et al., 2004; Van Berkum et al., 2009). In addition, moral judgments have been found to be influenced by a person's political orientation (Brady et al., 2017; Federico et al., 2013; Graham et al., 2009; Lane & Sulikowski, 2017). The aim of the present study was to investigate how people react towards and judge fictive agents based on the moral valence of the agent's behavior and as a function of the political orientation of the participant.

In the study of moral judgments, few studies have taken everyday scenarios into account, and even less investigated helpful or courageous moral behavior (Yoder & Decety, 2014). In its dyadic structure, the *dimensional moral model* (Gray & Wegner, 2011) includes harmful as well as helpful moral behavior that is directed from an agent, the wrong or right doer, towards a patient who is the recipient of an act. Based on the dimensional moral model, we developed and validated a large set of written scenarios describing everyday moral behavior (see Study 1), which provide a good foundation for the study of moral judgments. They follow

the same structure with one moral agent acting towards a moral patient, they describe a large variety of moral behavior, and they include positive moral behavior and neutral behavior within the same setting.

Unlike solely naming or describing a person, faces activate a much larger associative network and facilitate emotion processing, even unconsciously (Haxby et al., 2000). For instance, it has been demonstrated that pairing a face with a short background information can alter the evaluation of the person that the face belongs to (Barrett et al., 2011; Carroll & Russell, 1996; Todorov & Uleman, 2003; Wieser & Brosch, 2012). In the study of emotion in faces, it has been shown that neutral faces can be associated with emotional context information to gain emotional valence (F. C. Davis et al., 2010; Schwarz et al., 2013), which is even true for single associations of the face with the context (Morel et al., 2012). Furthermore, adding emotional verbal information to a face can alter how an observer evaluates a face or a facial expression (Baum et al., 2018). By pairing a face with a name and description of moral behavior, one can create an impression of a moral agent, which allows a person-centered and thus more realistic and exhaustive approach to moral judgment instead of solely evaluating behavior (Uhlmann et al., 2015).

Political orientation is a dividing factor when it comes to issues of high moral relevance (e.g., Becker & Scheufele, 2009; Jessani & Harris, 2018). Haidt and Graham (2007) proposed that conservative and liberal individuals rely on a different set of moral foundations as part of their moral evaluations. Whereas conservatives base their evaluations on five moral foundations (harm, fairness, loyalty, authority, and purity), liberals only consider harm and fairness as relevant (Graham et al., 2009; Haidt & Graham, 2007). Differences between conservatives and liberals have also been found with regard to the response towards emotional stimuli and their emotional involvement (Hibbing et al., 2014; Jost et al., 2003; Oxley et al., 2008). In an event-related potentials (ERP) study, Tritt and colleagues (2016) found enhanced amplitudes of the

early posterior negativity (EPN) and the late positive potential (LPP) for conservatives compared to liberals towards high but also low arousing emotional and neutral stimuli. Enhanced activations in the EPN and the LPP indicate (sustained) attention towards salient stimuli (see e.g., Hammerschmidt et al., 2017; Schacht & Sommer, 2009). In another study, conservatives were aroused easily and showed heightened emotional reactions after watching positive or negative emotion-inducing film-clips (Tritt et al., 2013). More evidence for a difference in emotional involvement based on political orientation comes from studies indicating conservatives compared to liberals to be more distracted by threatening stimuli, with higher physiological sensitivity towards them (Carraro et al., 2011; Oxley et al., 2008). In addition, conservatives have been shown to give harsher moral judgments towards rather harmless taboo violations (Piazza & Sousa, 2014). Lane and Sulikowski (2017) found evidence for a dual-process of political orientation in moral judgments: Under cognitive load, conservatives acted fast when solving a moral dilemma, while liberals took longer to respond. This speaks for a fast and emotional reaction in conservatives and a reason-based slow process for liberals towards moral transgressions under conditions of limited cognitive resources. Other studies could not replicate the initial findings of differences in physiological reactivity based on political orientation (e.g., Bakker et al., 2020; Knoll et al., 2015). Whether there is an underlying neural difference between conservatives and progressives, especially concerning the moral domain, remains open to further investigation.

In studies that examined political orientation as a factor in influencing processes of social cognition, conservative/liberal, and left/right have been the primary subdivisions of the political spectrum. However, there are several reasons why *liberalism* as one pole of the scale does not apply to the German society (see Study 5). Recently, self-identification as “progressive” as the left end of the scale has become popular (e.g., Kurtzleben, 2021).

Therefore, we will use “conservative” and “progressive” as the two ends of the political spectrum in the following.

Another factor which has been the focus of many studies on morality is gender (e.g., Baez et al., 2017; Capraro & Sippel, 2017; Friesdorf et al., 2015; Fumagalli et al., 2010; Skoe et al., 2002). However, when investigating the factor gender, the primary focus has been on the gender of the participants and much less on whether different moral standards are applied to people, based on their gender. A study by Capraro and Sippel (2017) found no difference in how participants thought that females and males should behave in moral dilemmas. In other domains, however, stereotype-based gender norms have been shown to influence ratings of an individual’s competence and verbal ability (Biernat & Manis, 1994), of the valence of faces (Oh et al., 2019) and of trustworthiness (Buchan et al., 2008; Wright & Sharp, 1979). In a study in which gender roles were presented reversed to the common stereotype (breadwinning moms, caretaking dads), Gaunt (2013) found that participants applied a double standard when they judged deviations from gendered family roles. Given the inconclusive evidence, it is necessary to gain a better understanding whether people are judged solely based on their actions or also based on person variables, such as their perceived gender.

ERPs offer a method to implicitly measure neural mechanisms underlying moral reasoning. Due to their high temporal resolution, ERPs allow disentangling fast and intuitive responses at early processing stages from more elaborative and presumably conscious responses in later stages. The P100 component, elicited around 100 ms after visual stimulus presentation, has been attributed to perceptual processing and rapid attention allocation. There is growing evidence for P100 modulations by emotional and social relevance of visual stimuli (Schacht & Vrtička, 2018; Ventura-Bort et al., 2016), including facial expression of emotions (Batty & Taylor, 2003; Hammerschmidt et al., 2017; Rellecke et al., 2011). Following the P100, the N170 is reliably elicited by the presentation of face stimuli and has been suggested to reflect

structural face encoding (Carbon et al., 2005; Herzmann et al., 2010; Rellecke et al., 2011). There is mixed evidence whether the N170 is also modulated by emotion (Hammerschmidt, Kagan, et al., 2018; Hinojosa et al., 2015; Rellecke et al., 2013). Occurring approximately 200-350 ms after stimulus onset, the EPN is elicited by attention towards emotionally salient stimuli, signifying preferential processing compared to neutral stimuli (Hammerschmidt et al., 2017; Hammerschmidt, Kulke, et al., 2018; Schacht & Sommer, 2009; Schupp et al., 2007). The LPP is a later ERP component that lasts for several hundred milliseconds, with latencies around 500 ms. Activation is enhanced for emotional and motivationally salient stimuli, and moreover reflects higher-order processing of emotional information (Hammerschmidt et al., 2017; Schacht & Sommer, 2009; Schacht & Vrtička, 2018; Ventura-Bort et al., 2016). As for moral stimuli, the LPP has been found to reflect implicit positive-negative distinction processes when people are confronted with moral transgressions (Leuthold et al., 2014). Note that the LPP is also referred to as Late Positive Complex (LPC; e.g., Schacht & Sommer, 2009), which can be understood as synonymous term.

Aims and Hypotheses

The aim of the present study was twofold: First, we investigated if moral agents are judged differently based on the valence of their actions. We used explicit character judgments in the form of likeability judgments[2] as an explicit measure and ERPs to gain insight in the neuro-cognitive and –affective mechanisms that underlie moral reasoning. Second, we investigated whether the likeability judgments and the ERPs are influenced by the participants'

[2] A person's likeability is closely connected to their moral actions (Brambilla & Leach, 2014). Further, a likability judgment can be inferred from a face that has only been shown for 100 ms (Willis & Todorov, 2006). Likeability judgments can therefore be understood as judgments of a person based on their moral character and are an excellent tool for intuitive responses towards morally associated faces. Thereby, they can function as a comparable explicit behavioral measure to the ERPs.

political orientation. On the behavioral level, we additionally investigated whether the likeability of the agent varies based on their gender.

To this aim, we paired faces showing neutral expressions with morally positive, morally negative, or neutral written scenarios, where the agent that is introduced through the face commits an act towards another person. In accordance with our aims, we formulated the following hypotheses: In the explicit likeability ratings, we expected a main effect of valence (neutral, negative, positive) with higher scores for agents associated with positive moral behavior compared to agents associated with neutral behavior and lower scores for agents associated with negative moral behavior compared to neutral behavior. We expected an interaction of associated moral valence and political orientation, with conservatives being more extreme in their ratings of agents associated with positive and negative behavior compared to progressives. We did not expect differences for conservatives and progressives for agents with a neutral association. Apart from political orientation, we expected an interaction of valence and gender of agent, with female agents receiving higher likeability ratings for the same harmful or helpful behavior compared to males and but no difference for neutral behavior.

For the ERP components to the faces that were associated with moral scenarios, we expected a main effect of valence (neutral, negative, positive) of the moral associations with increased amplitudes of the P100, EPN and LPP for faces associated with positive and negative moral behavior compared to faces associated with neutral behavior. Since emotional modulations of the N170 were reported only for facial expressions of emotion but were absent in associated valence manipulations (e.g., Hammerschmidt, Kagan, et al., 2018; Hammerschmidt et al., 2017), we did not expect any differences between the moral valence conditions for the N170 component. We expected an interaction of associated moral valence of the face stimuli and political orientation of the participants for the P100, EPN and LPP, with larger neural response amplitudes for conservative compared to progressive people in the

positive and negative condition but not in the neutral condition. As a pre-association baseline, we also presented all faces once before they were associated with a scenario. For these faces, we expected no effect of valence or political orientation in any of the ERPs of interest.

Material and Methods

Sample size rationale

Sample size was determined in a power simulation using R (R Core Team, 2018) for a small effect size of $f = .10$ with a maximum $N = 80$, a cumulative maximal type I error rate of 5% and inter-correlations of measures within participants of $r = 0.70$. The estate of the inter-correlations was based on the P100 effects of previous work for the differences in the valence categories (Demel et al., 2019). We limited the sample to a maximum of 80 participants since this is already an extremely large sample size compared to similar electroencephalography (EEG) studies (e.g., Hammerschmidt et al., 2017; Tritt et al., 2016). We computed group sequential designs and decided to stop data collection at any of the pre-defined points if we find the expected effects (see preregistration https://osf.io/acmkr/, for details). Due to the outbreak of COVID-19, which led to a shut-down of our lab and because of difficulties in finding conservative participants who were willing to take part in the EEG study, the study ran for over 1.5 years before we decided to stop data collection after 40 complete data sets.

Participants

Participants completed an online prescreening, before they were invited to take part in the EEG experiment since we only wanted to compare individuals with an extreme conservative or progressive political orientation in a between-subjects design. In total, 675 participants (455 females, 216 males, 4 other, M_{age}= 24.63, SD_{age} = 5.76, $range_{age}$= 18-45 years) completed the prescreening. We used a pre-version of the *Contemporary German Questionnaire of Political Orientation* (CGPOQ) to select fitting participants for our study (see Study 5). Apart from the

CGPOQ, participants answered demographic questions (age, gender, highest education, religiousness) and the *Saarbrücker Persönlichkeitsfragebogen* (SPF; Paulus, 2016), which is a questionnaire to assess dispositional empathy based on the Interpersonal Reactivity Index (Davis, 1983).

Individuals scoring +/-0.75 SD from the group mean of the validation study of the CGPOQ were invited to the main experiment, resulting in politically progressive and politically conservative subsamples. The inclusion criterion had to be adapted since very few participants reached the preregistered +/- 2 SD from the group mean. According to self-report, all participants were right-handed (Oldfield, 1971) and had no neurological or psychiatric disorders. In total, we tested 41 participants (21 conservative, 20 progressives) in the EEG study. One conservative participant had to be excluded because of EEG data loss of >50%, which left a total of 40 participants (20 females, 20 males, M_{age}= 25.32, SD_{age} = 6.25, $range_{age}$= 18 - 44 years) for analysis. Apart from their political orientation, the groups were comparable in demographics (i.e., gender and age). Participants were reimbursed with 8.50€ per hour or course credit for taking part in the EEG study and could win a total of 50€ in a raffle. In addition, 100€ were raffled off to all participants who took part in the online pre-screening.

Material

We used 180 faces with neutral facial expressions from the *Göttingen Face Database* (Kulke et al., 2017). Furthermore, we used 180 mixed gender scenarios where a moral agent commits either a harmful, helpful or neutral act towards a patient based on the dimensional moral model (Gray & Wegner, 2011; see Table 4, for an example). The scenarios exist in three parallel versions (i.e., 540 scenarios in total), which means that the setting of the scenario is always the same but differs in the action from the agent towards the patient. The scenarios were developed and validated in a separate study and are described in more detail in Study 1. Each scenario involved both genders, meaning that if the agent was female, the patient was male and

vice versa. The scenarios exist in two versions, one where the agent is female and the other where the agent is male. For each participant, a random set of 180 stimuli was drawn with 60 positive, 60 negative, and 60 neutral scenarios and only one of the three parallel versions.

Table 4

Example of one moral scenario in three versions for each moral valence (negative, neutral, positive)

moral category	scenario
negative	Peter and Anna take the train to Frankfurt and collide at the door of a compartment. Both have the same seat number on their reservation due to a booking error. Peter insists on his seat, although Anna has a broken leg.
neutral	Peter and Anna take the train to Frankfurt and collide at the door of a compartment. Both have the same seat number on their reservation due to a booking error. Peter leaves the seat to Anna and takes another free seat.
positive	Peter and Anna take the train to Frankfurt and collide at the door of a compartment. Both have the same seat number on their reservation due to a booking error. Peter leaves the seat to Anna and sits down in the aisle.

Note. 180 scenarios (each 60 negative, neutral, positive) were presented for each participant. Each participant was shown only one out of the three scenarios for each setting.

Procedure

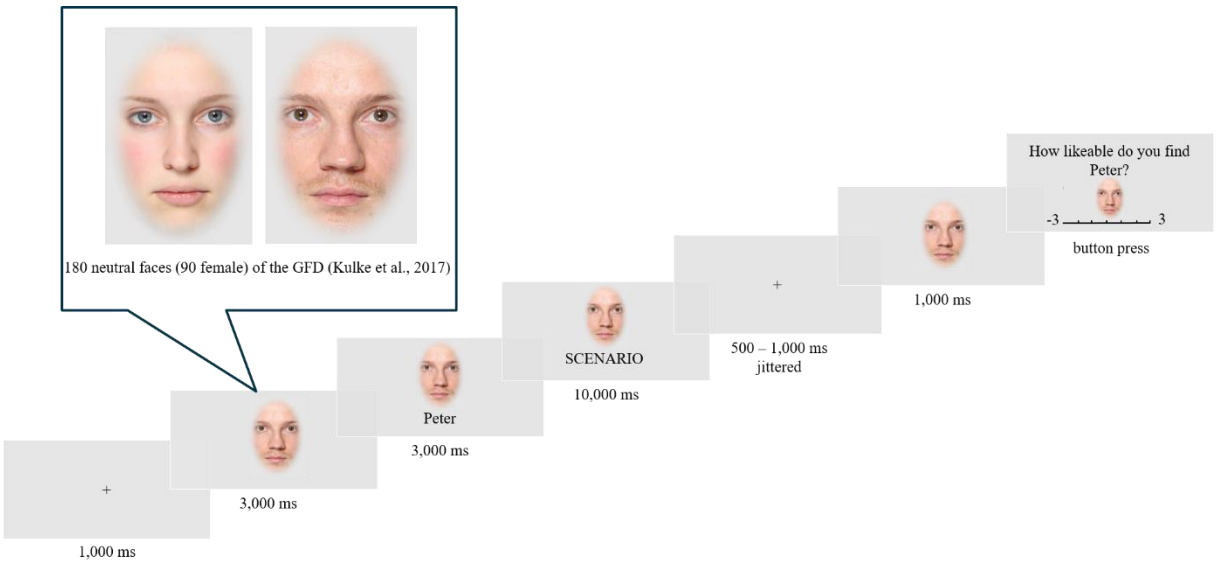
The study was approved by the local ethics committee of the Institute of Psychology at the University of Göttingen. Upon arrival, participants were informed about the procedure of the study and gave written informed consent. They were asked to fill in demographic data, a political self-identification on a left/right scale from 1 = left to 7 = right and a questionnaire assessing their handedness (Edinburgh Handedness Inventory; Oldfield, 1971). Subsequently, participants were seated in a sound-attenuated booth in front of a computer screen [3544 x 6260

pixels (px)]| in a distance of 77 cm. After EEG preparation, they were asked to put their head in a headrest to avoid movement. To get acquainted with the experimental procedure, participants were shown written instructions and completed one practice trial. The stimuli used for the practice trial were not included in the main experiment. Words were presented in 41 px in black on a grey background.

At the beginning of each trial, a black fixation cross (54 px) was presented at the center of the screen for 1,000 ms. Afterwards, a randomly drawn face (270 x 390 px) with a neutral facial expression was displayed for 1,000 ms. The face was positioned in the center of the screen with a visual angle of 5.3° x 7.7°. Subsequently, a randomly drawn name appeared underneath the face for an additional 3,000 ms before a randomly drawn moral scenario was presented, which described an act from an agent towards a patient, whilst the face of the agent was shown above the scenario. The scenario was displayed at least 7,000 ms. Afterwards, participants could continue via mouse click. After 15,000 ms, the screen changed automatically. The gender of the agent was randomized for each scenario but overall counterbalanced for each participant. The allocation of the face, name, and scenario was randomly assigned, but matched for gender. Subsequently, a jittered black fixation cross (500 – 1,000 ms) appeared on the screen, followed by the agent's face for another 1,000 ms. All ERPs were measured locked to the onset of this face presentation. At the end of every trial, participants made a person judgment on the respective agent. The question "How likable do you find [name]?" was answered using a 7-point Likert scale (-3 = very unlikable to 3 = very likable) with the face of the agent depicted above (see Figure 7). Each participant completed 180 trials with 180 randomly selected faces, names, and scenarios. Every face, name, and scenario were displayed only once. The trials were divided into ten blocks, with one block comprising 18 trials. Between blocks, participants were able to take short breaks. Including EEG preparation, an experimental session took about 2.5 - 3 hours.

Figure 7

Example of one trial in the experiment. In total, 180 trials were presented with a full randomization of face, scenarios, name, and presentation order.



EEG acquisition and preprocessing

The experiment was run using *PyCharm* (JetBrains, 2017), a Python integrated development environment. The EEG was recorded from 64 electrodes, placed in an electrode cap (Easy-Cap, 10-20 system, Biosemi, Amsterdam, Netherlands). The common mode sense (CMS) and driven right leg (DRL) passive electrodes were used as reference and ground electrodes (cf. www.biosemi.com/faq/cms&drl.htm). Two external electrodes were placed on the left and right mastoids (A1, A2). Eye movements and blinks were recorded with four additional external electrodes, which were applied on the outer canthi (HEOG) and below (VEOG) the eyes. Signals were recorded at a sampling rate of 512 Hz and were amplified with a band pass filter of 0.16-100 Hz. Electrode offsets were kept within a range of ± 20 μV.

We used Brain Vision Analyzer (Brain Products GmbH, Munich, Germany) to preprocess the acquired data. Data was down-sampled to 500 Hz and re-referenced to average. In addition, data was filtered offline with a low cutoff (0.03183099 Hz, time constant 5s, 12

dB/oct), a high cutoff (40 Hz, 48 dB/oct), and a notch filter (50 Hz). The continuous EEG signal was segmented into epochs of 900 ms, starting 200 ms before stimulus onset and referred to a 200 ms pre-stimulus baseline. Data with excessive blinks was corrected using the algorithm proposed by Gratton et al. (1983). After rejecting epochs containing artifacts that were visually identified within a semi-automatic artifact rejection, the segments were averaged for each subject and each experimental condition (helpful agent, neutral agent, harmful agent).

The ERPs of interest and their respective regions of interest (ROIs) were defined in the preregistration. We adapted some of the ROIs based on visual inspection using the aggregate grand average from trials (AGAT) for the associated presentation of the faces (Brooks et al., 2017). For the P100, the topographies over all conditions have shown that the positive activation extends over a larger area than the pre-registered occipital electrodes (O1, O2). Therefore, we have added four electrodes to the ROI (O1, O2, PO7, PO8, Iz, Oz). The P100 component was quantified as the most positive peak between 80-120 ms (with O1 as reference electrode for the visual inspection per subject). For the second early ERP, the N170, we used peak amplitudes between 140 and 176 ms after stimulus onset (with P9 as reference electrode for the most negative peak) at parieto-temporal electrodes as preregistered (P7, P8, P9, P10, PO7, PO8, TP7, TP8). As a third ERP, we analyzed the EPN using mean amplitudes between 200-350 ms. The ROI for the EPN was predefined in the preregistration. However, we slightly adapted it based on visual inspection of the difference plots for the AGAT between progressives and conservatives. It included six occipito-partial electrodes (P5, P6, PO7, PO8, P7, P8). The late positive potential (LPP) was analyzed using mean amplitudes between 350-600 ms after stimulus onset. We adapted the predefined ROI based on visual inspection of the AGAT because the activation was more occipital than the preregistered electrodes. It included eight centro-occipital electrodes (O1, O2, PO3, PO4, PO7, PO8, Oz).

Statistical analyses

All statistical analyses were conducted using R (version 4.0.5, R Core Team, 2021) in RStudio (version 1.4.1103). To investigate whether moral valence and political orientation influenced the likeability rating and the ERP components, we implemented separate Linear Mixed Models (LMMs) for each outcome variable using the lmer function from the lme4 package (Bates et al., 2015). We analyzed the data before association and after association for each ERP component. For the likeability rating, we treated moral valence (negative, neutral, positive) and gender of agent (female, male) as within-subjects factors nested within participants and political orientation (conservative, progressive) as quasi-experimental between-subjects factor. We averaged the likeability ratings and peak or mean amplitudes for the ERP components across all 60 trials of the respective moral valence condition and treated these mean values as dependent variable in the LMM. The models contained random intercepts for participants to account for the dependency in the data. All ERP analyses were time-locked to the presentation of the face, for the first and second presentation, respectively. Normal distribution and homogeneity of variance were tested by visually inspecting Quartile–Quartile-Plots (QQ-plots) and residual plots. We tested for model stability by excluding subjects one at a time and comparing the model estimates derived from these subjects with those from the full data. *Variance-inflation factors* (VIF) were derived using the vif function from the R-package car (Fox et al., 2012); there was no issue of collinearity. As an overall test of the fixed effects and their interactions, we compared the full models to the respective null models lacking the fixed effects but comprising the same random effects structure using a likelihood ratio test (Fox et al., 2012; R function Anova with argument test set to “Chisq”). To test for the interaction of moral valence and political orientation (or moral valence and gender of agent), we compared the full model including the interaction to a reduced model without the interaction using a likelihood ratio test.

For all ERP components that yielded significant differences in the LMMs, we tested orthogonal planned contrasts for the moral valence factor (negative vs. positive vs. neutral) and political orientation (conservative, progressive). Contrasts weights were (+1, +1, -2) and (+1, -1, 0). The first contrast tested the hypotheses that harmful and helpful stimuli elicit a larger ERP component than neutral stimuli (main effect) and that this increase is greater for conservative participants (interaction effect) compared to progressives. The second contrast tested the null hypotheses that the magnitude of the ERP component is equal for harmful and helpful stimuli (main effect) and that the increase in magnitude among conservative participants is equal for harmful and helpful stimuli. We tested the first contrast with one-tailed tests and the second with two-tailed tests as predefined in the preregistration. For the likeability ratings, we used another set of orthogonal planned contrasts with the baseline category for neutral agents. The first contrast tested the hypothesis that harmful agents were rated as less likeable than neutral agents. The second contrast compared positive agents to neutral agents. Contrast weights were therefore (1, -1, 0) and (0, -1, 1). Lastly, we applied contrasts for the interaction of valence and gender. Within each valence category (negative, neutral, positive), we compared the likeability ratings for females and males. Contrast weights were (1, 0, 0, -1, 0, 0), (0, 1, 0, 0, -1, 0), and (0, 0, 1, 0, 0, -1).

Results

Political Orientation

In the prescreening, our sample was rather progressive (M = 36.43 on a scale from 0 = very progressive to 100 = very conservative). The correlation between empathy and political orientation in the sample of the prescreening was significant with progressives showing higher empathy scores compared to conservatives (R^2 = 0.30, p = .001, 95% CI [0.23, 0.37]). Overall, 48 participants reached the criterion for the conservative and 185 for the progressive group who were subsequently invited for an EEG test session. Out of these eligible participants, 41 took

part in the EEG testing, however, one participant had to be excluded due to data loss of >50%. The sample whose EEG data was analyzed included 20 conservatives (10 females, 10 males, M_{age} = 26.05, SD_{age} = 6.89, $range_{age}$ = 18 - 42 years) and 20 progressives (10 females, 10 males, M_{age} = 23.75, SD_{age} = 3.89, $range_{age}$ = 19 - 36 years). Political orientation according to the CGPOQ was M_{CGPOQ} = 60.19 (*SD* = 4.94) for the conservatives and M_{CGPOQ} = 23.31 (*SD* = 3.91) for the progressives (0 = very progressive, 100 = very conservative). Political self-identification on the 7-point left-right scale (1 = left, 7 = right) was M_{pol} = 4.45 (*SD* = 0.74) for the conservatives and M_{pol} = 2.35 (*SD* = 0.59) for the progressives. As intended, the two groups significantly differed from each other in their CGPOQ scores (t = 26.18, df = 38, p < .001) and political self-identification (t = 9.93, df = 38, p < .001). On the 7-point religiousness scale from 1 = *not at all religious* to 7 = *very religious*, conservatives had a mean score of M_{rel} = 3.50 (*SD*= 1.85*)* and progressives of M_{rel}=2.75 (*SD* = 1.58). The mean score in empathy for the conservatives was M_{Emp}= 41.9 (*SD* = 6.54) and M_{Emp}=44.2 (*SD* = 5.66) for the progressives. Conservatives did not differ from progressives in their religiousness (t = 1.38, df = 38, p = .177), or empathy scores (t = -1.19, df = 38, p = .242) unlike for the sample of the prescreening.

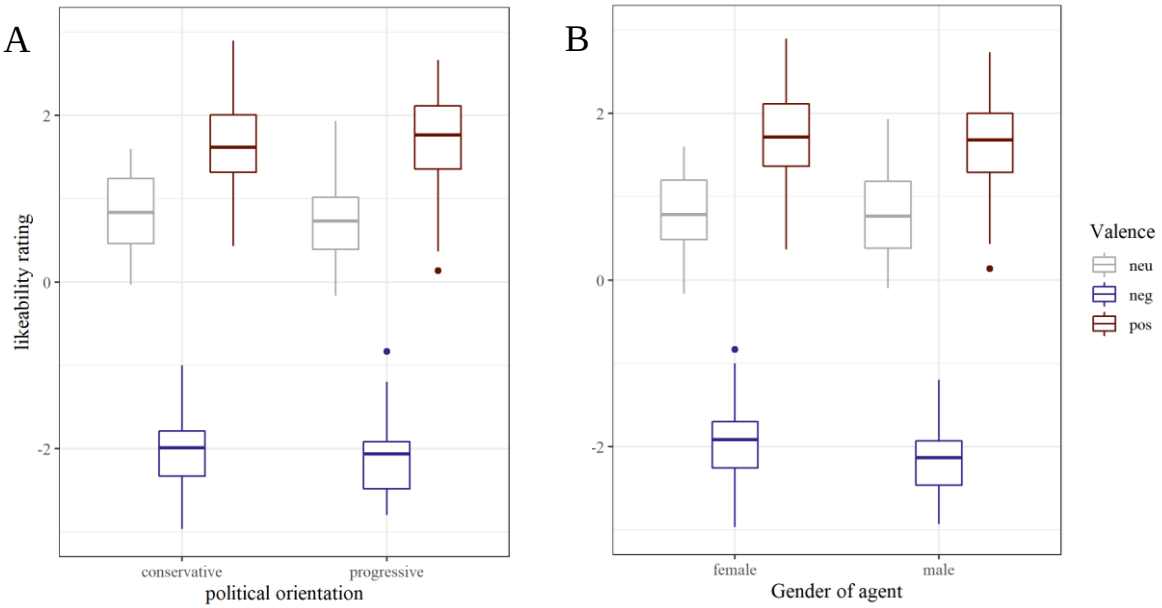
Likeability ratings

The means of the likeability ratings (ranging from -3 = *very unlikeable* to +3 = *very likeable*) were *M* = -2.04 (*SD* = 1.07) for the negative/harmful, *M* = 0.79 (*SD* = 1.22) for the neutral, and *M* = 1.69 (*SD* = 1.12) for the positive/helpful scenarios. For each group separately, means were $M_{negative}$ = -2.00 (*SD* = 1.11), $M_{neutral}$ = 0.83 (*SD* = 1.28), $M_{positive}$ = 1.68 (*SD* = 1.44) for the conservatives and $M_{negative}$ = -2.07 (*SD* = 1.02), $M_{neutral}$ = 0.75 (*SD* = 1.15), $M_{positive}$ = 1.69 (*SD* = 1.09) for the progressives. Overall, the model including moral valence, political orientation, gender of agent, and the interaction of valence x political orientation and valence x gender of agent was significant ($\chi 2$ = 8099.49, df = 6, p < .001) in comparison to the null model, which only included political orientation and gender of agent ($R^2_{marginal}$ = 0.66). This result

indicated a main effect of moral valence on the likeability judgments. Planned contrasts showed that positively associated agents were rated as more likeable than neutral agents (z = 28.30, p < .001) and negative agents were rated as less likeable than neutral agents (z = -88.69, p < .001). To test the interaction of moral valence and political orientation regarding the likeability ratings, we compared the model to a null model, including moral valence and political orientation. The model comparison was not significant ($\chi 2$ = 2.47, df = 2, p = .290), which indicates that political orientation did not influence the likeability ratings (Figure 8.A). However, the model comparison testing the interaction of valence and gender of the agent was significant ($\chi 2$ = 7.11, df = 2, p = .028). Planned contrasts showed that in negative scenarios, males were rated as less likeable compared to females (z = 4.35, p < .001, Figure 8.B).

Figure 8

Boxplot for the interaction of (A) valence and political orientation and the interaction of (B) valence and gender of agent on the likeability ratings.

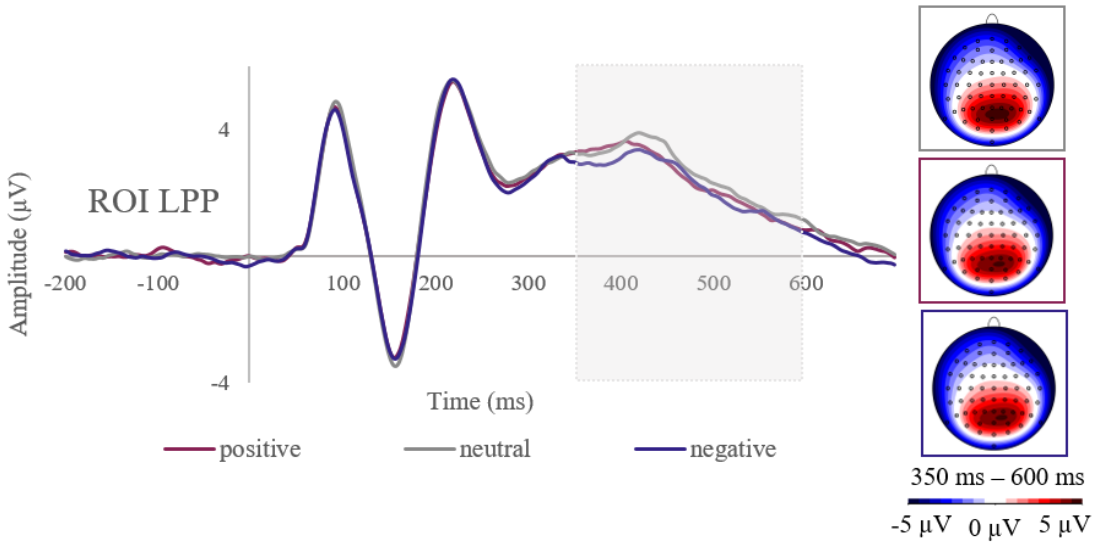


ERPs

First, we analyzed the ERPs for the reactions towards the faces before any association. For the P100, the N170, and the EPN, the main effects of valence and political orientation, as well as their interaction were not significant (see Appendix B, Table B1). For the LPP, the main effect of valence was significant ($\chi 2 = 9.49$, $df = 4$, $p = .0499$; $R^2_{marginal} < 0.01$). The amplitudes for the valent (i.e., positive and negative) agents were slightly lower compared to the neutral agents ($p = .052$; Figure 9). Both, the main effect of political orientation ($\chi 2 = 5.40$, $df = 3$, $p = .144$) and the interaction of valence and political orientation ($\chi 2 = 5.36$, $df = 2$, $p = .069$; $R^2_{marginal} < .01$) were not significant. Figures of the mean amplitudes and the topographies of the P100, N1700, and EPN of the unassociated ERP components can be found in Appendix B (Figure B1).

Figure 9

Mean amplitudes and topographies for the main effect of valence for the LPP before association with the scenarios.

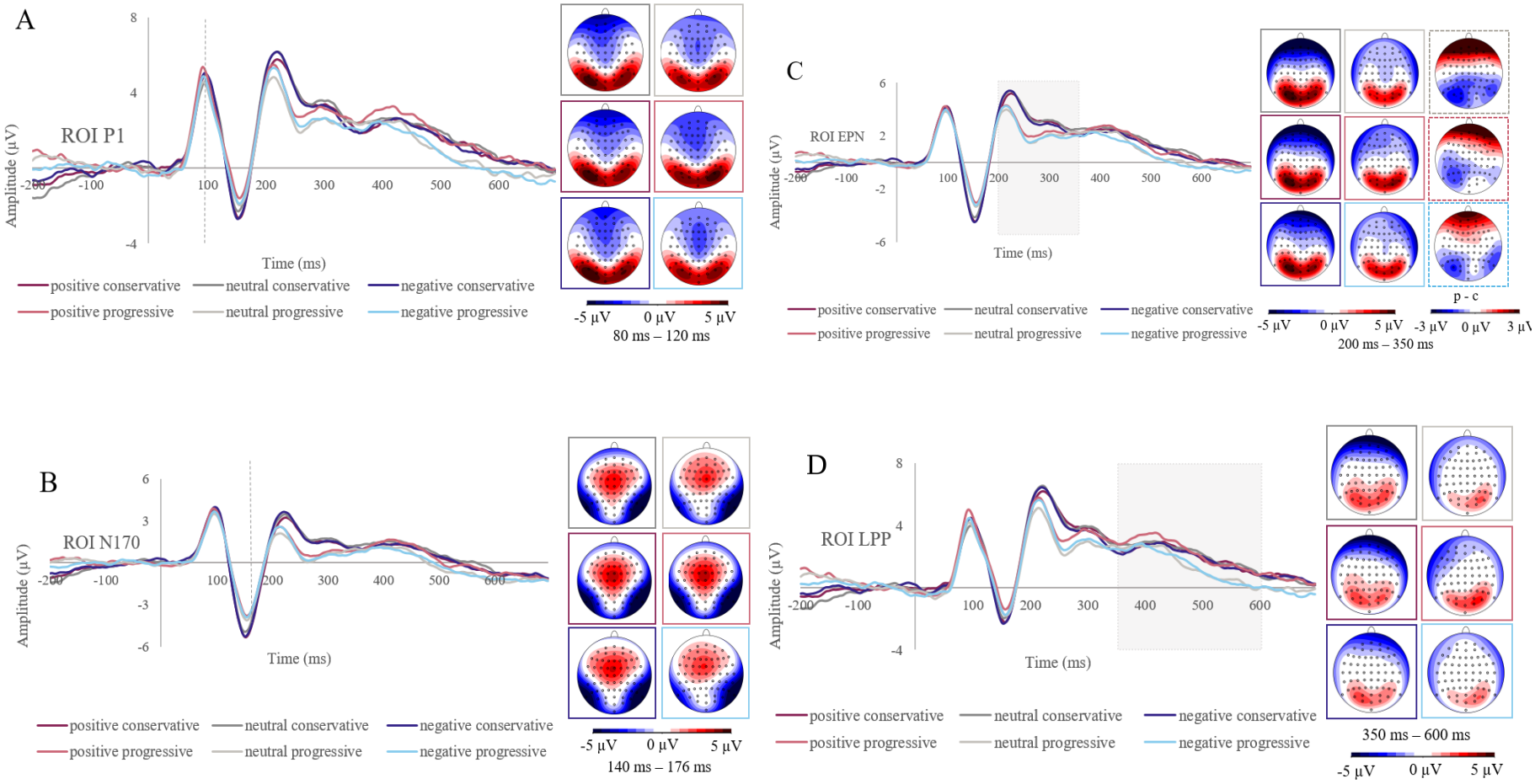


Second, we analyzed the ERPs for the reactions towards the associated faces. For the P100, the model comparison testing the main effect of moral valence ($\chi 2$ = 8.22, *df* = 4, *p* = .084), political orientation ($\chi 2$ = 4.43, *df* = 3, *p* = .218), as well as the interaction of moral valence x political orientation ($\chi 2$ = 4.41, *df* = 2, *p* = .120) were not significant ($R^2_{marginal}$ = 0.01, Figure 10.A). Similarly, for the model comparisons of the N170, there was no significant main effect of moral valence ($\chi 2$ = 3.30, *df* = 4, *p* = .508), political orientation ($\chi 2$ = 4.99, *df* = 3, *p* = .172), or their interaction ($\chi 2$ = 2.84, *df* = 2, *p* = .241, $R^2_{marginal}$ = 0.05, Figure 10.B). For the EPN, no significant differences were found for main effects (moral valence: $\chi 2$ = 4.32, *df* = 4, *p* = .364; political orientation: $\chi 2$ = 4.45, *df* = 3, *p* = .217) or for the interaction between moral valence and political orientation ($\chi 2$ = 2.25, *df* = 2, *p* = .325; $R^2_{marginal}$ = 0.05, Figure 10.C).

For the LPP, the model comparisons showed a significant main effect for moral valence ($\chi 2$ = 11.43, *df* = 4, *p* = .022), but not for political orientation ($\chi 2$ = 6.29, *df* = 3, *p* = .098). The interaction of valence and political orientation was significant ($\chi 2$ = 6.31, *df* = 2, *p* = .047, $R^2_{marginal}$ = 0.01). Positive compared to negative agents elicited higher amplitudes (*z* = 2.31, *p* =.021), which was mainly driven by the difference between positive and negative agents within the progressives (*z* = 2.95, *p* = .003) and not the conservatives (*z* = 0.31, *p* = .573). In addition, the difference in amplitude between neutral and positive agents was larger for progressives compared to conservatives (*z* = 2.32, *p* = .020). For conservatives, there was no significant difference, whereas, for the progressives, positive agents elicited larger amplitudes compared to neutral agents (see Figure 10.D).

Figure 10

Mean amplitudes for each ROI and topographies time-locked to the second presentation of the associated faces for the (A) P100, (B) N170, (3) EPN, (4) and LPP



Discussion

In our study, we investigated whether the likeability of agents varied in dependency of their moral actions and whether this is also reflected in the neural processing of their faces. A second aim was to investigate whether the participants' political orientation had an influence on moral judgments and the neural responses in the EEG.

People were rated as less likeable when they acted in an immoral compared to a neutral way, which corroborates previous research finding that a person's behavior is relevant for their likeability (for a review, see Brambilla & Leach, 2014). Similarly, Brambilla et al. (2019) found that a person's morality was important in impression updating. Considering new information about the morality of a person, the participants in their study adjusted their initial rating of a person on a scale ranging from negative to positive (Brambilla et al., 2019). In another study, participants were presented faces that were either framed as cooperators or defectors. Faces of fair players were not only rated as more likeable and faces of unfair players as less likeable than neutral faces, but these faces also elicited stronger brain empathy-related responses in the left amygdala, bilateral insula, fusiform gyrus, superior temporal sulcus (STS), and reward-related areas (Singer, Seymour, et al., 2004).

Against our hypothesis, political orientation of the judges did not influence the harshness of their likeability ratings. It was our prediction that conservatives would give more extreme likeability ratings for harmful and helpful compared to neutral agents. In contrast to the likeability ratings on a behavioral level, our ERP data give preliminary support for differences based on valence and political orientation. Conservative compared to progressives exhibited enhanced LPP amplitudes, with a uniform pattern across all valence categories. The significant interaction of valence and political orientation indicated that for conservatives, agents of all valences elicited high amplitudes, which were only comparable to positive agents in the progressives. In comparison, neutral and harmful agents in the progressives elicited

significantly lower amplitudes compared to all other conditions. LPP modulations reflect sustained attention towards and higher order processing of relevant (emotional) stimuli (e.g., Leuthold et al., 2014; Schacht & Sommer, 2009; Schacht & Vrtička, 2018). The higher mean amplitudes that were exhibited for conservatives compared to progressives corroborate other studies that found that people differ in their physiological responses based on their political orientation, with conservatives showing an enhanced emotional reactivity (Hibbing et al., 2014; Jost et al., 2003; Oxley et al., 2008). Our findings expand this research to the moral domain. The higher activation and indistinguishable activation between valence conditions for conservatives compared to progressives in the LPP can also be compared to the study by Tritt and colleagues (2016) who found that conservatives exhibited larger LPP amplitudes, specifically to unarousing stimuli, which are typically not considered to be salient.

Our results indicate that for progressives, helpful agents were especially salient, as they elicited higher activations compared to neutral and harmful agents. The similar and lower activation for harmful agents, with a comparable progression over time and amplitude to neutral agents, is surprising and contradicts several ERP findings for emotional stimuli. For instance, some studies found a negativity bias in the LPP, with unpleasant compared to pleasant stimuli eliciting larger amplitudes (Bartholow et al., 2001; Hajcak & Olvet, 2008; Y. X. Huang & Luo, 2006; Weinberg & Hajcak, 2010), and morally unacceptable behavior eliciting larger amplitudes than acceptable behavior (Leuthold et al., 2014). In addition, negative behavior is argued to be more diagnostic for a person's morality because honest (i.e., morally coherent) behavior is seen as normative (Brambilla & Leach, 2014). One explanation for these contradictory results is that, while in the positive scenarios we associated the moral agent with helpful behavior, the setting of the scenario was not necessarily positive. A large proportion of the scenarios that we used in this study describe a negative initial situation (i.e., a person needing help) that only changes for the better through the agent's action. Potentially, this change

in valence from negative to positive is more demanding in higher cognitive processing, and therefore leads to the enhanced LPP for positive behavior. If this is the case, our results can be compared to studies that found that expectation incongruent stimuli elicit a more positive LPP compared to expectation congruent behavior (e.g., Bartholow et al., 2001; Du et al., 2014). The negative setting of the positive scenarios in our study could have led to a mindset that was generally set more towards expecting the worst. However, comparing our results to the findings in expectancy violations (e.g., Bartholow et al., 2001; Kernahan et al., 2000), it could also be assumed that in a prosocial intact society, helpful moral actions are more expected than harmful behavior.

Another explanation for the unexpected difference between harmful and helpful agents is the baseline difference in valence for the LPP of the unassociated faces. However, we had a fully randomized design with each face being paired with a different scenario across all three valence categories and a different presentation order for each participant. Therefore, the baseline difference can only be attributed to a random fluctuation in amplitude. Comparing the progression over time of the LPP for the unassociated compared to the associated faces showed that the for the unassociated faces there was no constant difference between the three valence conditions, i.e., the amplitude for neutral faces was not generally higher compared to the valent conditions. In comparison, the LPP for the associated faces showed a constant difference over the time course of the ERP for harmful and neutral compared to helpful agents. It is unlikely that the baseline difference for the LPP of the unassociated faces was systematic and could therefore explain the difference in the associated faces. However, since we also found a baseline difference for the LPP in the unassociated condition, the interpretation for the differences of the associated agents should be considered preliminary.

Positive behavior is still highly understudied compared to moral transgressions, especially for EEG studies. To our knowledge, there is no ERP study that specifically

investigated moral adherent behavior. Since our study indicate contradicting results that speak against a negativity bias in the processing of moral characters, future studies are needed to disentangle this discrepancy in ERP findings. For example, studies could contrast moral positive and negative stimuli to positive and negative stimuli that carry emotional valence but do not include moral content.

Taking the behavioral and neural results together, it could be shown that there is a discrepancy in the neural processing of moral agents and the moral likeability judgments. It is surprising that conservatives and progressives differ in their physiological responses but not their explicit likeability judgments. If the underlying processes of moral judgments differ for conservatives and progressives, it could also be assumed that these differences are also reflected in behavior. One reason that might have contributed to not finding a difference based on political orientation for harmful and helpful agents in the behavior are floor or ceiling effects, meaning that participants might have been inclined to choose very extreme ratings because the scenarios were unambiguously harmful or helpful. This unambiguity could have masked subtle differences based on political orientation in the likeability judgments. In future studies, very extreme scenarios could be used as an anchor so that the ends of the scales are not continuously used for the target scenarios. Another reason as to why there were no differences in the explicit behavior judgments could lie in the question that was used, which was aimed at the likeability of the agents. In a previous study, we found that in a moral behavior judgment (i.e., “How do you judge the behavior from ‘A’ towards ‘B’?”), the explicit judgments were modulated by political orientation of the participants (see Study 2). However, also against our predictions, the difference between conservatives and progressives was only observable in neutral and not in positive or negative moral behavior. Our reason to use the likeability question for the behavioral judgment was twofold: First, we wanted to use a question that could be understood as an explicit behavioral counterpart to the neural response to the associated face. Second, moral research has

been criticized for studying moral judgments detached from the identity of characters (i.e., study of raceless, genderless strangers; Hester & Gray, 2020). By using likeability judgments of agents who were introduced with a name and face, we hoped to make the judgments more comparable to real life. Future research is needed to determine whether and to what extent political orientation affects behavioral moral judgements.

Another finding of our study is that gender of the agent played a role in the likeability judgment for harmful agents. Males were rated as less likeable than females when they showed reprehensible behavior. This discrepancy is astounding as the scenarios were identical for female and male faces. In addition, gender of the participants was counterbalanced. It is likely that different moral standards are applied to males and females, which potentially stem from disparate expectations rooted in gender stereotypes. In line with this, research has found that females receive more lenient sentences than males do for similar offences (Daly & Bordt, 1995). Similarly, in a study that investigated gender-morality relations, it was found that ascription of moral status varied based on an agent's gender. Males were more likely to be ascribed moral responsibility, while moral considerability was ascribed to females (Marks-Wilt & Robbins, 2014). Thus, there seems to be a gender asymmetry as to how moral agents are evaluated in their likeability based on their gender.

Although we addressed several shortcomings of previous studies by using a fully mixed and randomized design, there are some limitations to our study. First, due to the difficulty in finding conservative participants (and because of testing difficulties due to the corona pandemic), we could not test the preregistered group sequential design of up to 80 participants. While our sample size is still larger than comparable EEG studies (e.g., Hammerschmidt et al., 2017; Leuthold et al., 2014; Tritt et al., 2016), there is a possibility that small effects were undetected due to a lack in statistical power. Second, the scenarios that we used were carefully developed and validated on the dimensions of valence and arousal and described positive,

negative, and neutral behavior in the same setting. However, while we aimed at making the scenarios more similar to everyday behavior, their presentation in association with the cropped neutral faces is still very abstract compared to observing a real-life interaction. Future studies could embed faces and scenarios in settings that are more common in everyday life (e.g., social media posts or newspaper articles) to increase ecological validity (see e.g., Baum & Abdel Rahman, 2021).

The results from our study add to the understanding of the underlying processes of moral judgments. To our knowledge, our study is the only EEG study that looked at reactions towards moral agents with such a large set of moral scenarios that included positive, negative, and neutral behavior and matched the scenario settings for the different valence categories. Our results showed that moral agents are evaluated differently based on their action, both in their likeability and in the neural processes. In addition, the activation pattern in the neural responses towards moral agents varies in dependency of the participants' political orientation. Our results amplify the importance of considering morally negative and positive behavior, as well as political orientation in studies on social judgments of moral agents.

Moral dilemmas in the wild: a cross-cultural longitudinal study during the corona pandemic

Abstract

The current corona pandemic called for a series of moral decisions for politicians, clinicians, and the public. In previous laboratory studies, moral research has mostly relied on unrealistic scenarios that lack in external validity, plausibility, and proximity to everyday situations. Due to the unusual situation of a worldwide pandemic, there is the possibility to assess moral judgments by the public in scenarios with a transferability to the current situation. In this study, we used seven moral dilemmas with direct relation to the corona pandemic to investigate how moral peoples' judgments are influenced by personal exposure to a crisis, how personal and timely proximity play a role in the judgment process, and whether there are differences in societies that had different peaks of the outbreak and different approaches of dealing with the situation by their respective governments. Over the course of four months and three assessment periods, we asked German and Italian participants about their opinion towards moral dilemmas as well as their behavior changes and situation assessments. Our results indicate that moral decision-making varies depending on the country, assessment period, fear, and age. Further, the decision-making of laypeople in our study differs from current policies and directives. Our study provides an insight into real-life moral decision-making, which opens up new directions in future research on morality.

Keywords: moral reasoning, COVID-19, coronavirus, moral dilemmas, triage, stockpiling, fear

Introduction

The coronavirus (COVID-19) pandemic has affected the entire world and put everyone in a hitherto unfamiliar situation that has lasted longer than anyone initially imagined. The pandemic led to millions of illnesses and deaths worldwide (World Health Organization, 2020) and economic crises in the majority of countries (Karabag, 2020). Because of the pandemic, a multitude of moral dilemmas arose that directly affected a large number of people. The current study aims to understand how people judge moral dilemmas that have occurred in everyday situations during the corona pandemic. Understanding people's behavior and willingness to adapt their behavior is necessary to define future health policies and has societal and political implications for a state of emergency. Although a number of studies have investigated how people make decisions in small-scale laboratory or virtual real-life dilemmas (e.g., Bostyn et al., 2018; Francis et al., 2017; Navarette et al., 2012), the corona pandemic provides the unique opportunity to study changes of moral intuitions about real-world dilemmas in a longitudinal design.

The coronavirus was first identified in December 2019 in China and has spread to the whole world in the following weeks, causing the World Health Organization to declare the outbreak as a pandemic in March 2020 (Cucinotta & Vanelli, 2020). The virus is characterized by an easy human-to-human transmission by air and is spread by symptomatic and asymptomatic infected people (Borges do Nascimento et al., 2020). While most infections are mild with flu-like symptoms, there are more severe courses, especially for risk groups, which require intensive medical treatment. Given the lack of vaccines in the first year of the pandemic, recommended measures included various social distancing measures, lockdowns, and the wearing of masks. The effectiveness of these measures depends largely on the cooperation of the population and resulted in a number of far-reaching (moral) decisions on different levels regarding the public's understanding for policy development and implementation.

How the outbreak and spread of the corona pandemic have been handled varies between countries. Italy is a European country that was hit particularly hard by the crisis very early on (Remuzzi & Remuzzi, 2020). In an attempt to understand the bad progression of Italy compared to other European countries, two main explanations were put forward: Italy has the most elderly population in Europe with many people showing relevant concomitant diseases. In addition, Italy's ICU/health care system has quickly reached its capacity limits (Boccia et al., 2020). Consequently, a nationwide compulsory quarantine was implemented by the government between the 9th of March and the 18th of May 2020[3]. Germany showed a different progression and severity during the first wave in March 2020. In comparison to other countries, but especially Italy, Germany had a lower case fatality rate with a significantly lower mortality rate during the first wave of the pandemic (World Health Organization, 2020). Thus, the capacities of the health system were not exhausted. A nationwide lockdown to stop the spread of the disease was implemented in Germany on the 22nd of March 2020 and lasted until the 6th of May 2020.

The corona pandemic has raised several questions of ethical relevance. Besides its huge impact on the health of the citizens, it has also had massive effects on the economy and the personal freedom of its citizens. So far, most of the psychological research on moral dilemmas has focused on fairly simple dilemmas (see Waldmann et al., 2012, for an overview). A classic paradigm is the trolley dilemma, in which a runaway train that is heading toward a larger number of victims who would be killed, can be re-directed onto a different track where a smaller number of victims would lose their lives. A major criticism of trolley dilemmas is that they are very abstract and extreme in their nature. It is argued that they lack ecological validity, are sometimes rather taken humorously than seriously, and, most importantly, that they do not elicit

[3] At the time of the decree, Italy already had 7,375 confirmed cases with 366 deaths (World Health Organization, 2020). Overall, there was high compliance with the policy recommendations except for slightly lower compliance of younger people (Barari et al., 2020). Even people who distrust the government have followed the regulations (Barari et al., 2020).

the same psychological processes as real situations (Bauman et al., 2014; Körner et al., 2019). In contrast, the corona pandemic has affected people around the world in their real life. Using moral dilemmas that are related to the pandemic will therefore increase ecological validity and address shortcomings of previous studies.

It is not our goal to provide tests between alternative theories of how people process moral dilemmas. In the past decade, numerous relevant factors have been identified that have been postulated as morally relevant in philosophical ethics (Kamm, 1992). All theories agree that alternative outcomes affect intuitions, which is in line with the predictions of consequentialist and non-consequentialist theories (e.g. Cohen & Ahn, 2016; Engelmann & Waldmann, 2022; Mikhail, 2011; Savulescu et al., 2020). But besides outcomes, non-consequentialist factors including the type of action, distance, rights, and obligations in the society also proved important (Mikhail, 2011; Waldmann et al., 2012).

Fear arises when perceiving threat of harm and has been identified as a central emotion during the corona pandemic (Colì et al., 2020). Several studies reported an increase in distress, worry, depression, and stress levels as a result of the corona pandemic (Erceg et al., 2020; Mazza et al., 2020; Pearman et al., 2021; Robinson & Daly, 2020; Sobkow et al., 2020). However, the pandemic has not only caused an increase in fear levels, but fear has also led to certain behavioral adaptations (Erceg et al., 2020; Harper et al., 2020; Sobkow et al., 2020). For instance, higher fear led to more responsible and protective behaviors (Erceg et al., 2020; Prete et al., 2020; Yıldırım et al., 2021). However, Sobkow et al. (2020) showed that worry can predict behavioral intentions in diverging directions. In their study, worry about health led to higher adoption of hygiene and social distancing measures, whereas people who worried about personal restrictions adopted fewer prevention measures (Sobkow et al., 2020). For a precise assessment, it is therefore important to define what the fear refers to.

Very early in the pandemic, it became clear that some people are at particular risk for a severe course of a COVID-19 infection. High-risk groups include people of higher age (>70 years, Zheng et al., 2020) and several medical preconditions, such as hypertension, diabetes, cardiovascular disease, chronic respiratory disease, and cancer (Yang et al., 2020). Although older people are at higher risk, they assessed the risk of infection as being smaller than younger people in a German (Gerhold, 2020) and an Italian sample (Rosi et al., 2021). However, older people were also more willing to comply with preventive measures in both countries (Barari et al., 2020; Lüdecke & von dem Knesebeck, 2020). An optimism bias (so called unrealistic optimism) about the pandemic was observed in several relatively young samples of participants (Dolinski et al., 2020; Kulesza et al., 2020). According to Bottemanne et al. (2020), this optimism bias might explain the discrepancy between official warnings and protective behavior in accordance with these warnings. In addition, some studies found age differences with regard to worry with higher scores for younger people (Huang & Zhao, 2020; Mazza et al., 2020; Prete et al., 2020). Taken together, these results indicate that age might be a relevant predictor in how people assess and act in accordance with suggested and implemented prevention measures.

While there are some studies that have examined individual moral scenarios within the corona pandemic, none have addressed how people evaluate pandemic-related dilemmas and how these judgment differ based on culture and change over time. Considering both longitudinal and cross-cultural aspects of moral reasoning during the corona pandemic will be insightful for understanding the cultural and situational determinants of moral decisions. A challenging question for health professionals in crises is how patients are prioritized when several need treatment at the same time, but immediate care is only possible for one patient because they have reached their capacity limit (e.g., ICU beds and personnel). The concept of *triage* refers to the general distribution of scarce resources in health contexts but is best known for deciding whether patients should be prioritized for intensive care (Iserson & Moskop, 2007).

Italy, among other countries, has had to apply triage early on because hospitals reached capacity limits for ICU care (Rosenbaum, 2020). The concept of triage has severe moral implications. Savulescu et al. (2020) argue that triage is a prominent example for the application of a utilitarian principle because it aims to maximize the good (i.e., ensure survival for as many as possible).

Triage is a sensitive moral issue, without a clear definition concerning who to prioritize. When resources are scarce, they have to be used efficiently. According to most triage protocols, they are not given to the sickest patients but rather those who benefit most from the treatment (Moskop & Iserson, 2007). Even though triage has been applied in the past, the corona pandemic is a unique situation that poses new challenges to existing (triage) systems. Vulnerable patient groups (i.e., people of older age and/or (respiratory) preconditions) need immediate care when infected but potentially have a lower survival rate compared to otherwise healthy infected patients.

In addition to the question of who should be prioritized for treatment, there is also the question to what extent it is morally acceptable to protect oneself in a crisis. As outlined above, age is a risk factor for a severe course of a COVID-19 infection. At the same time, older medical professionals were still needed to work, and in the case of Italy were even asked to return from retirement to help with the high amount of infected people (Balmer & Pollina, 2020). A previous study demonstrated that people find that they have a moral responsibility to contribute to the mitigation of a crisis when they are able to do so (Bostrom et al., 2020). However, even in hypothetical dilemmas, self-sacrifice is rare (e.g., Bahník et al., 2021; Swann et al., 2014). Whether it is justifiable to ask elder medical personnel to put themselves at risk to save others is a morally charged question for which there is no clear solution. It is a balancing act between the Hippocratic Oath that physicians take and self-serving preservation.

Stockpiling has been reported to lead to supply disruptions during major disasters all over the world (e.g., Hendricks et al., 2020; Hu et al., 2013). Due to the rapid spread of the corona pandemic in March 2020, people started to buy ahead on goods of daily need, arguably to be equipped for potential shortages and lockdown measures. The spike of demand led to immediate shortages of food and hygiene products (e.g., Statistisches Bundesamt, 2020). When society is faced with commodity scarcity, there is a need for deciding how to distribute common resources (Hardin, 1968). In terms of medical supplies, consumers stocking up on medical facemasks contributed to shortages for medical personnel who need the masks for work. Chen et al. (2020) argued that during the corona pandemic, stockpiling can be understood as an expression of the psychological need to maintain (or restore) control. Similarly, Van Bavel et al. (2020) argued that panic buying can be understood as a form of self-preservation. A study that has investigated stockpiling during the corona pandemic found that honest-humility, a measure for active cooperativeness which has been linked to prosocial behavior, is negatively related to stockpiling (Fischer et al., 2021).

While stockpiling is an example of commodity scarcity on a personal level, the limited availability of common goods also raises the risk of economic speculation by producers and suppliers. Due to the increased demand for some products (e.g., hand sanitizers or facemasks) but also production or distribution difficulties during the corona crises, prices for these items increased rapidly and companies adjusted their market strategies (OECD, 2020). The high demand for some products provided opportunities for exploitative pricing. This raised the question of whether authorities should be involved to protect consumers and hinder exploitive pricing practices. For medical resources, the shortage was so severe that even medical facilities such as hospitals no longer had enough supplies to equip health care workers (Emanuel et al., 2020). This shortage had massive implications as it possibly led to higher infection rates also among health care workers in Italy (Balmer & Pollina, 2020).

With the prolongation of the corona pandemic and the consequent restrictive measures, secondary effects, beyond the health implications, have become increasingly relevant in the public and political debate. Research has shown that the economy was highly affected by the corona crisis (Dorn et al., 2020) and that quarantines led to an increase in anxiety (Prete et al., 2020). While compliance with preventive measures was in general high at the beginning of the pandemic, it was reduced in younger people who are less likely to be severely endangered by an infection (Barari et al., 2020; Fancourt et al., 2020). In addition, there is evidence that people tend to grow tired of the adaptation of protective behavior, especially when it leads to losses for themselves (Brüne & Wilson, 2020). Part of the moral implication of the corona crisis is that there are different types of losses that have to be traded off (Wiedemann & Dorl, 2020). How economic losses should be valued in relation to the containment of corona is a dilemma of high moral significance.

Aims of the Study

This study aimed to gain a better understanding of how people judge moral dilemmas when they show parallels to their current lives. Through a longitudinal designs, we were able to measure changes in moral intuitions and evaluations simultaneously to the development of the pandemic in three assessment periods in Germany and Italy. In line with our pre-registered study design (osf.io/8ubcv), we were collecting data in Iran too but had to cancel data collection during the first assessment period due to unexpected problems.

We expected a difference in moral judgments for assessment periods and country as indications of varying severity of the pandemic. During our first assessment period (March 2020), the situation was rather new in Europe and only recently declared a pandemic. Both Italy and Germany were already in or right before a first nationwide lockdown. Whereas in Germany the situation was still under control, the situation in Italy was already severe. For assessment periods two and three (2 and 4 months later), the situation was more relaxed in both countries.

Beyond the general differences between both countries and the assessment periods, we expected variance in the moral judgments based on subjective fear and age of the participants. In an explorative manner, we examined subjective evaluations of the situation, self-reported changes of behavior, confidence in the situation over time, and expected long-term consequences.

Methods

The study is longitudinal and cross-cultural with three assessment periods including participants from Germany and Italy. The project was approved by the ethics committee of the Institute of Psychology of the University of Goettingen. The aims, design, and hypotheses were preregistered on the open science framework before data collection (https://osf.io/8ubcv/).

Participants

Participants were recruited online two days after the WHO confirmed COVID-19 as a pandemic. Data collection was online via the open-source framework *formr* (version 0.7.4) (Arslan et al., 2020). Data collection for assessment period 1 (T1) took place for 10 days from March 13th to March 23rd 2020. Assessment period 2 (T2) and 3 (T3) were 60 and 120 days after T1. For each participant, the period to complete each questionnaire was 10 days.

For T1, 1713 adults (1053 Germans, 600 Italians, 60 others[4], M_{age}= 32.5 (*SD*=11.5) years, 27.7% male, 72% female, 0.4% other) responded to the online questionnaire that was posted on Facebook, Twitter and circulated via e-mail using the lab internal mailing list and participant databases in German and Italian. The same participants were invited to take part in the data collection for T2 and T3. A total of 1157 participants (727 Germans, 396 Italians, 34 Others, M_{age}= 31.8 (*SD*=11.7) years, 28.9% male, 70.9% female, 0.3% other) finished the questionnaire for T2 and a total of 889 participants (567 Germans, 301 Italians, 21 Others,

[4] "Others" include participants where nationality and residence were not the same or participants whose nationality and residence did not match the inquired countries (Germany, Italy, and Iran). Data that was collected from Iranian participants was excluded completely because of unforeseen problems in data collection during T2 and T3 and is not considered here.

M_{age}= 32.2 (*SD*=11.9) years, 26.6% male, 72.1% female, 0.3% other) finished T3 and therefore the entire study. The whole dropout rate was 48.10%. Only participants whose country of residence and nationality matched the respective country were included in the analyses.

Testing procedure

Before data collection at each assessment period started, participants were asked to give their informed consent in accordance with the Declaration of Helsinki (World Medical Association., 2001) by pressing an "I agree" button located beneath an explanatory letter. After the completion of the questionnaire, participants were fully informed about the aim of the study.

Assessment period 1. First, participants provided their demographic information including age, gender, educational background, occupation, nationality, country of residence, and religiousness. In addition, participants were asked about their pre-existing health conditions, and whether they were infected or knew someone who was infected with COVID-19. Detailed information on demographics can be found in Appendix C (Table C1). To invite participants to the subsequent test sessions, participants provided their email address, which was exclusively used for this aim.

Subsequently, participants answered a number of questions regarding the corona pandemic. Ratings were given on a scale ranging from 0 - 100 by moving a slider located in the middle of the scale. The questions included "fear of being infected", "fear of death for self or closely related persons", and confidence.

Lastly, participants were asked to morally evaluate alternative courses of actions in five moral dilemma scenarios that referred to the current corona pandemic. The scenarios were adapted from classical moral dilemmas and varied in how much they referred to personal or societal conflicts. Each moral scenario was presented on a separate page. The scenarios were displayed on top of each page along with a slider on a scale from 0 to 100 below the page.

Assessment period 2 and 3. Most demographic questions were not repeated in T2 and T3. However, due to the diverse prevalence of the outbreak in different states, subjects were asked in which state or region they lived. Moreover, we asked participants for an individual situation assessment concerning the health system, the economy, and their personal life, and regarding their current job situation. The fear assessment was refined by using a total of 10 questions based on the *Fear of Coronavirus-19 scale* (Ahorsu et al., 2020). Participants were also asked about their behavior changes due to the corona pandemic in accordance with Harper et al. (2020). Finally, we added two questions about the assessment of the scope and the strictness of the prevention measures. At T3 participants were presented with the same set of questions as at T2. Additionally, a fear assessment question and a question that assessed the personal estimation of the long-term effects of the pandemic were included. Descriptions of all questions can be found in Table 5.

Table 5

Description of the 7 moral scenarios, fear, confidence, and situation assessments

Question	Description
Old GP	A registered general practitioner is already 65 years old. In his medical practice, he usually treats many patients including vulnerable patient groups. He is now considering closing his practice during the pandemic as he is at high risk due to his age. How acceptable is it for him to close down the practice? 0 = very unacceptable 100 = very acceptable
Stockpiling	The pandemic hit and markets are running out of medical supplies (masks, disinfections) and canned food. How acceptable is it to stock up on medical supplies and food for you personally even though this might lead to shortages for other people? 0 = Very unacceptable 100 = Very acceptable
Market regulation	*Wufa* is a medical company specialized in the production of disinfectants and medical masks. Should they be restricted from selling their products to the public and only be able to sell to medical institutions during the pandemic? 0 = Definitely no 100 = Definitely yes
Price Gouging	Should *Wufa* be able to raise prices for disinfectants and medical masks during the pandemic as there is an increased demand, thereby increasing its own profit margin? 0 = Definitely no 100 = Definitely yes
Triage	In the situation of the current Corona Pandemic, hospitals are currently overfilled. 1000 Patients with symptoms show up but immediate treatment is only available for 500 patients. How should patients be prioritized? 0 = Young ones and otherwise healthy ones should be prioritized as they have a higher chance of survival, so the treatment is most likely more effective. 100 = Older ones and people with pre-existing conditions should be prioritized and given health care first as they are at a higher risk of dying; however, their risk of dying even with the treatment is a lot higher.
Target of prevention measures	How targeted to a specific group do you think the protective measures to reduce corona infection (e.g. travel/exit restrictions, social distancing, compulsory masks) should be? 0 = Only people who belong to the high-risk group (older people, people with previous illnesses) should distance themselves socially and thus protect themselves from infection. 50 = There should be a basic level of restriction for all (e.g. no major events) but specific restrictions to high-risk populations 100 = The restrictions should apply to everyone

Strictness of measures	In your opinion, how strict should the measures that are taken as a result of corona (e.g. exit restriction) be? 0 = Lock-down measures should be strictly enforced to protect high-risk groups and contain the pandemic (e.g. closure of schools and day-care, no restaurant/café opening, no events) 100 = The measures should be relaxed completely in order to limit the economic losses and minimize the social impact on the population as a whole
Confidence	How confident do you feel about the situation concerning the corona virus? 0 = not at all confident 100 = very confident
Fear infection	How afraid are you of being infected? 0 = not afraid, 100 = very afraid
Fear of death for self or closely related persons	How afraid are you of you or someone close to you dying due to the corona virus? 0 = not afraid, 100 = very afraid
Health system/ Economy/ Personal life	Do you think the circumstances concerning the health system in your country/ the economy in your country//your personal life driven by the pandemic are better or worse compared to filling out the first part of the questionnaire (mid-March)? 0= much worse than before 50= same as before 100= much better than before
"Job Situation (1)"	Was your job/study situation negatively affected by the corona pandemic? Yes/ No
"Job Situation (2)"	How is your work/study situation at the moment Same as before, In the home office, Reduced or no work hours with reduced salary, Unpaid vacation, Paid vacation, Job termination due to corona virus other
"Behavior Change"	How much did you change your How much did you change your protective behavior (e.g. hand washing, working from home, social distancing, travels, grocery shopping) compared to when you filled out the first part of the questionnaire (mid-March)? 0 = has decreased 100 = has increased
Long-Term Personal/Society	Do you think the pandemic will have long-term consequences for your personal life/the society? 0 = no consequences 100 = significant consequences

Data Analysis

Statistical analyses were performed using R statistical software (version 3.6.2) and RStudio (version 1.2.5033). Standard p-values of .05 were used as a cut-off for two-tailed distributions. Data were excluded when participants did not finish all three assessment periods or the nationality or when country of residence did not match the targeted countries. A fear score was calculated at each assessment period as the average of the participant's rating of "fear of being infected" and "fear of death for self or closely related persons".

A Generalized Linear Mixed Model (GLMM) with beta error structure and logit link function was used to model the response to each of the five moral scenarios presented at the assessment periods, as well as the response to the additional moral questions presented at T2 and T3 only. The models included country (Germany, Italy), assessment period (T1, T2, T3), and their interaction as fixed effects. The covariates age and fear and their interaction with country and assessment period were also included as fixed effects. Participant was included as a random intercept effect. Models regarding the five moral scenarios presented at all assessment periods also included random slope of fear within individual identity. Age was log-transformed, and subsequently age and fear were both z-transformed to a mean of zero and a standard deviation of one. The responses to all scenarios were scaled in the open interval 0 - 1.

To test the overall effect of the fixed effects country, assessment period, and their interaction, each full model was compared with a reduced model lacking these two fixed effects. The likelihood ratio of the full model was compared with the likelihood ratio test of the reduced model (Dobson & Barnett, 2018). Collinearity among predictors was tested by determining the Variance Inflation Factor (VIF; Field 2005) in a standard linear model. Individual fixed effects of interactions were tested using likelihood ratio tests (Barr et al., 2013; R function drop1, with argument 'test' set to 'Chisq').

Additional Generalized Linear Mixed Models (GLMM; Baayen et al., 2008) with Gaussian error structure were used to model the response to each of the situation assessment questions, as well as the questions on behavior changes, and confidence. The models included country, assessment period, and their interaction as fixed effects. Covariates age and fear, their interaction, as well as the interaction of fear and country, fear and assessment period, age and country, and age and assessment period, were also included as fixed effects. Participant was included as a random intercept effect.

The overall effect of fixed effects country and assessment period on the rating to the situation assessment questions were tested by comparing each full model with a null model lacking the two fixed effects, using a likelihood ratio test. Similarly, the overall effect of country, assessment period, and fear on the rating of the behavior change and the confidence questions was tested by comparing each model with a null model lacking the three fixed effects. Moreover, a linear model was used to model the response to each of the long-term effects questions. The models included country, fear, and their interaction as fixed effects. Age, as well as its interaction with country and fear, were also included as fixed effects. For all models, the main effect of predictors not involved in any significant interaction was tested by fitting a reduced model lacking those interactions.

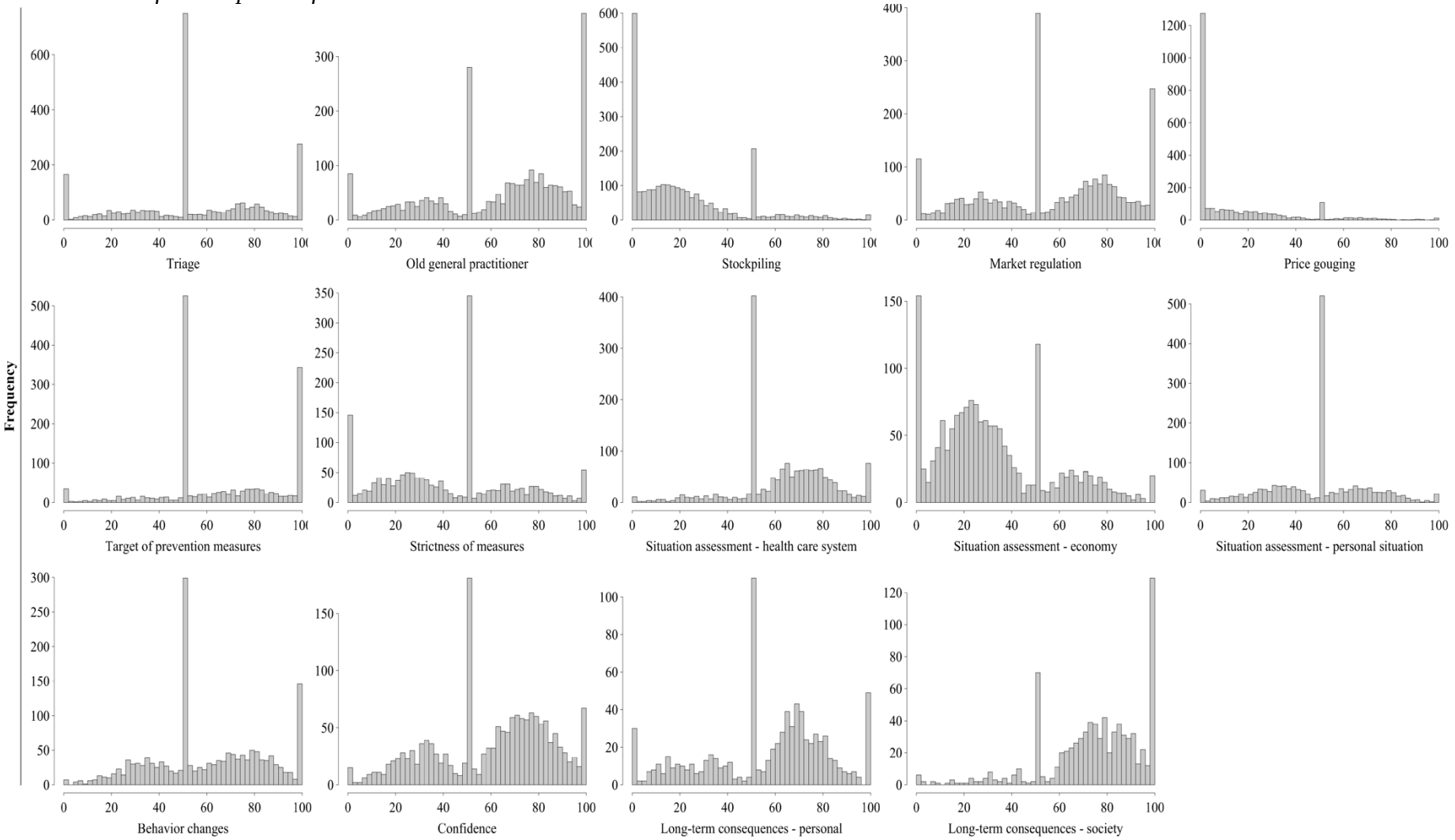
Results

The distribution of the evaluative responses to each moral scenario as well as the distribution of the responses to each question regarding the situation assessment, behavior changes, and confidence are shown in Figure 11. All the assumptions of the GLMM, including normality and homogeneity of the residuals, were met in each model. A maximum VIF of 1.06 indicated no collinearity issues. There was no overdispersion issue in the observed data compared to any of the GLMM used to model the response to the moral scenarios. Summaries of the GLMMs can be found in the Appendix C (Table C2 and C4, for the full model of the

seven moral scenarios and the additional scenarios, respectively; Table C3 and C5 for the reduced models of the moral scenarios and additional scenarios).

Figure 11

Distribution of the responses for each moral scenario and the additional scenarios



Triage

Participants showed no clear tendency for older or younger patients when they were asked who to prioritize in scarcity of hospital beds (M = 55.84, SD = 27.81). During T1, Germans showed a stronger preference towards prioritizing older patients compared to Italians. However, the preference for older people was reduced for Germans during T2 and T3, to values similar to Italians, who showed a less variable preference across assessment periods (χ^2 = 51.10, df = 2, p < .001; Figure 12.A).

Old General Practitioner Dilemma

Participants were asked whether they would find it acceptable for an old general practitioner to close his practice as he is at high risk of infection due to his age. Generally, participants leaned towards finding it acceptable, with ratings above 50 (M = 64.59, SD = 28.36). Italians found it less acceptable than Germans to close the practice in T1, but equally acceptable in T2 and T3, which was indicated by a significant interaction of country and assessment period (χ^2 = 8.84, df = 2, p = .012; Figure 12.B). Furthermore, a significant interaction of country and age (χ^2 = 10.62, df = 1, p = .001) indicated that older Italians found it less acceptable to close the practice, whereas, age did not play a role for Germans (Figure 12.C). Moreover, a main effect of fear (β = 0.15, SE = 0.04, p < .001) indicated that participants who scored higher in fear found it more acceptable to close the practice (Figure 12.D**).**

Stockpiling

In the stockpiling scenario, participants indicated how acceptable they find it to stockpile for themselves even though this might lead to shortages for other people. Generally, participants found it not acceptable to stockpile with a mean rating of M = 22.20 (SD = 22.06). A significant interaction of fear and assessment period (χ^2 = 6.52, df = 2, p = .038) indicated that higher fear led to a higher acceptance in stockpiling, which was most prevalent in T2 and

T3 (Figure 12.E). Furthermore, older people found it more acceptable to stockpile (β = 0.16, *SE* = 0.03, $p < .001$; Figure 12.F), independent of country and assessment period.

Market regulation

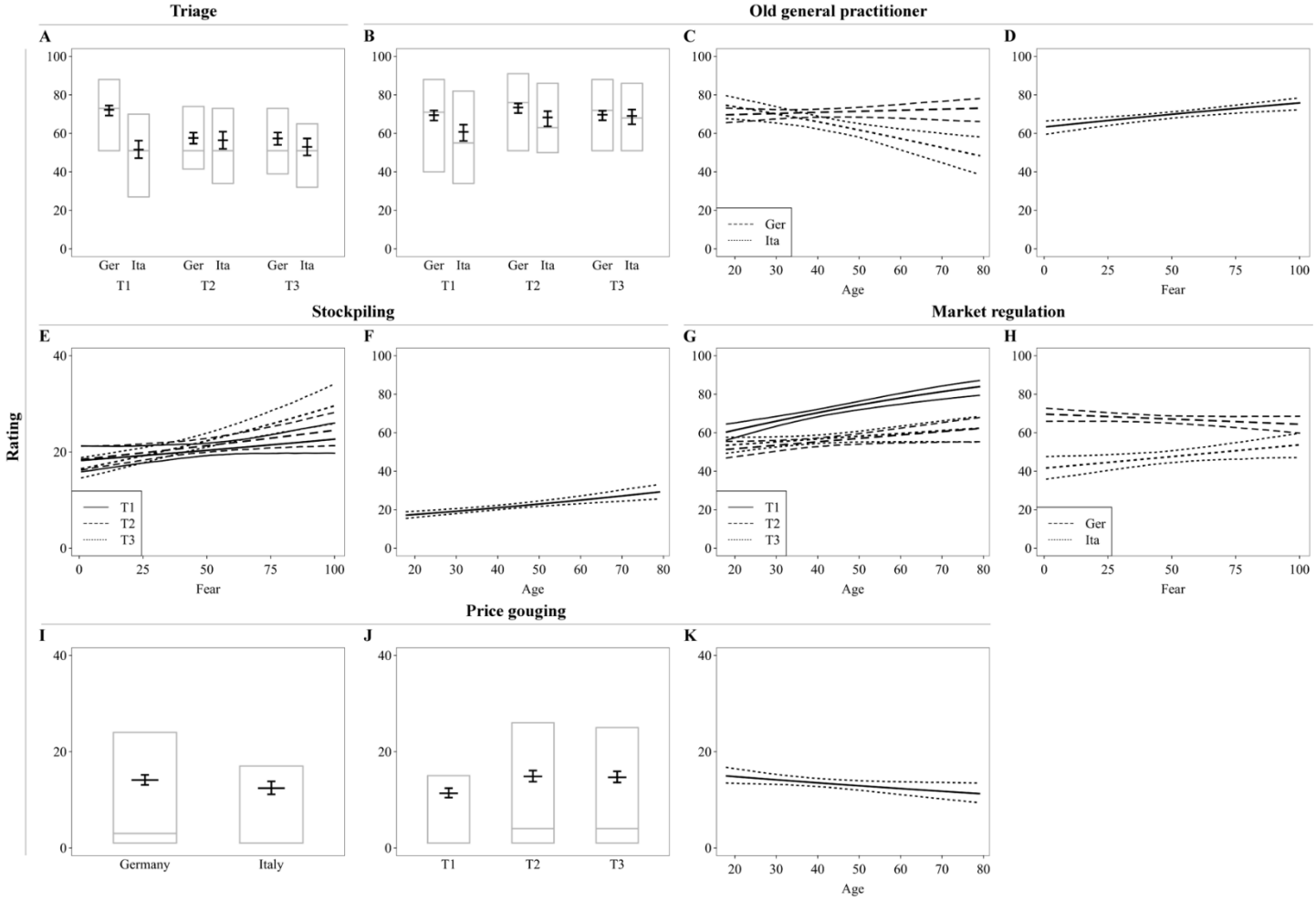
In the market regulation scenario, there was no clear preference on whether the market should be regulated for scare medical supplies (*M* = 57.99, SD = 28.66). However, older people found it more acceptable than younger people to regulate the market in general, but especially in T1 compared to T2 and T3, which was indicated by a significant interaction of age and assessment period (χ^2 = 14.42, *df* = 1, $p < .001$; Figure 12.G). In addition, fear led to a higher acceptance of market regulation in Italians, but not in Germans, for whom acceptance was lower when fear was higher (χ^2 = 6.45, *df* = 1, *p* = .011; Figure 12.H).

Price gouging

Regarding price gouging, participants indicated that they generally find it little acceptable that a company increases their profit margin during the pandemic (*M* = 14.54, *SD* = 20.73). Italians compared to Germans found it slightly more acceptable to increase the price margin (β = -0.15, *SE* = 0.08, *p* = .051, Figure 12.I) but independently of country, participants found price gouging even less acceptable in the first assessment period than in T2 and T3 (β_{T2} = 0.31, SE_{T2} = 0.05, $p < .001$; β_{T3} = 0.29, SE_{T3} = 0.05, $p_{T3} < .001$; Figure 12.J). In addition, older participants found it slightly less acceptable than younger participants (β = -0.07, *SE* = 0.04, *p* = .037; Figure 12.K).

Figure 12

Significant main effects and interactions for the ratings the moral scenarios that were presented in all assessment periods



Target of prevention measures

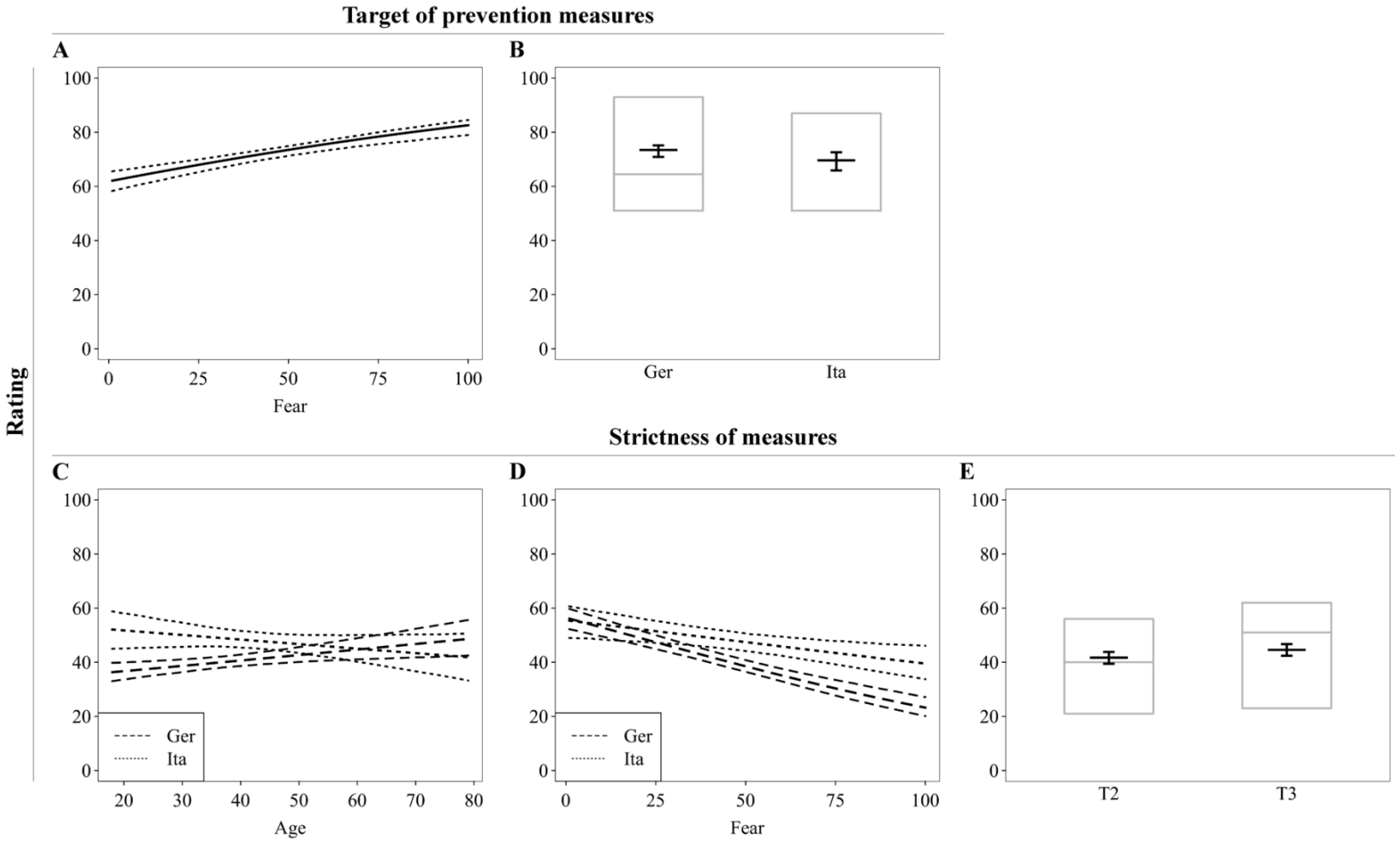
When participants were asked whether prevention measures should be targeted to high-risk groups or the whole population, they showed a clear preference for applying it to everyone (M = 65.84, SD = 25.52). A significant main effect of fear (β = 0.28, SE = 0.04, $p < .001$) indicated that, independently of the country and assessment period, more fearful participants had a stronger preference towards protective measures to reduce a corona infection that apply to the entire population instead of only high-risk groups (Figure 13.A). Moreover, we observed a weak tendency for the Italians to prefer more specific restrictions to high-risk populations compared to Germans (β = -0.19, SE = 0.10, p = .051; Figure 13.B).

Strictness of measures

Participants showed no clear preference on how strict the protective measures (e.g., lockdowns) should be (M = 42.66, SD = 26.67). Younger Italians showed a preference towards a relaxation of measures, while older Italians favored stricter measures to protect high-risk groups and reduce infections. There was an opposite pattern for Germans, with younger people favoring stricter lockdowns compared to older people, as was shown in the interaction of country and age (χ^2 = 6.61, df = 1, p = .010; Figure 13.C). In addition, the interaction of country and fear (χ^2 = 8.58, df = 1, p = .003; Figure 13.D) indicated that, while for participants from both countries, increasing levels of fear led to a stronger preference for stricter containment measures, this effect was stronger in Germans compared to Italians. Moreover, the main effect of assessment period was significant, indicating a stronger preference for stricter measure at T2 compared to T3, independently of country (β = 0.12, SE = 0.05, p = .015; Figure 13.E).

Figure 13

Significant main effects and interactions for the ratings of the moral scenarios that were presented in assessment periods 2 and 3



Situation assessment

In T2 and T3, participants were asked whether they thought that the situation regarding the health care system, the economy, and their personal life was better or worse compared to T1. Regarding the health care system, participants found that the situation in T2 and T3 was slightly better than in T1 (M = 63.38, SD = 19.61). Both Italians and Germans indicated that they found the situation was better in T3 compared to T2, however, this difference was stronger in Italians (χ^2 = 4.52, df = 1, p = .034; Figure 14.A). In addition, at lower fear levels, Italians thought that the situation was slightly better compared to Germans, while in participants with higher fear Germans indicated that the situation regarding health was better compared to Italians (χ^2 = 3.93, df = 1, p = .047; Figure 14.B). Finally, the interaction effect of fear and age was also significant (χ^2 = 7.80, df = 1, p = .005). Independently of the country and the assessment period, at lower levels of fear, older people rated the situation of the health care system as worse, while for higher fear, older people indicated that situation of the health care system as better (Figure 14.C**)**.

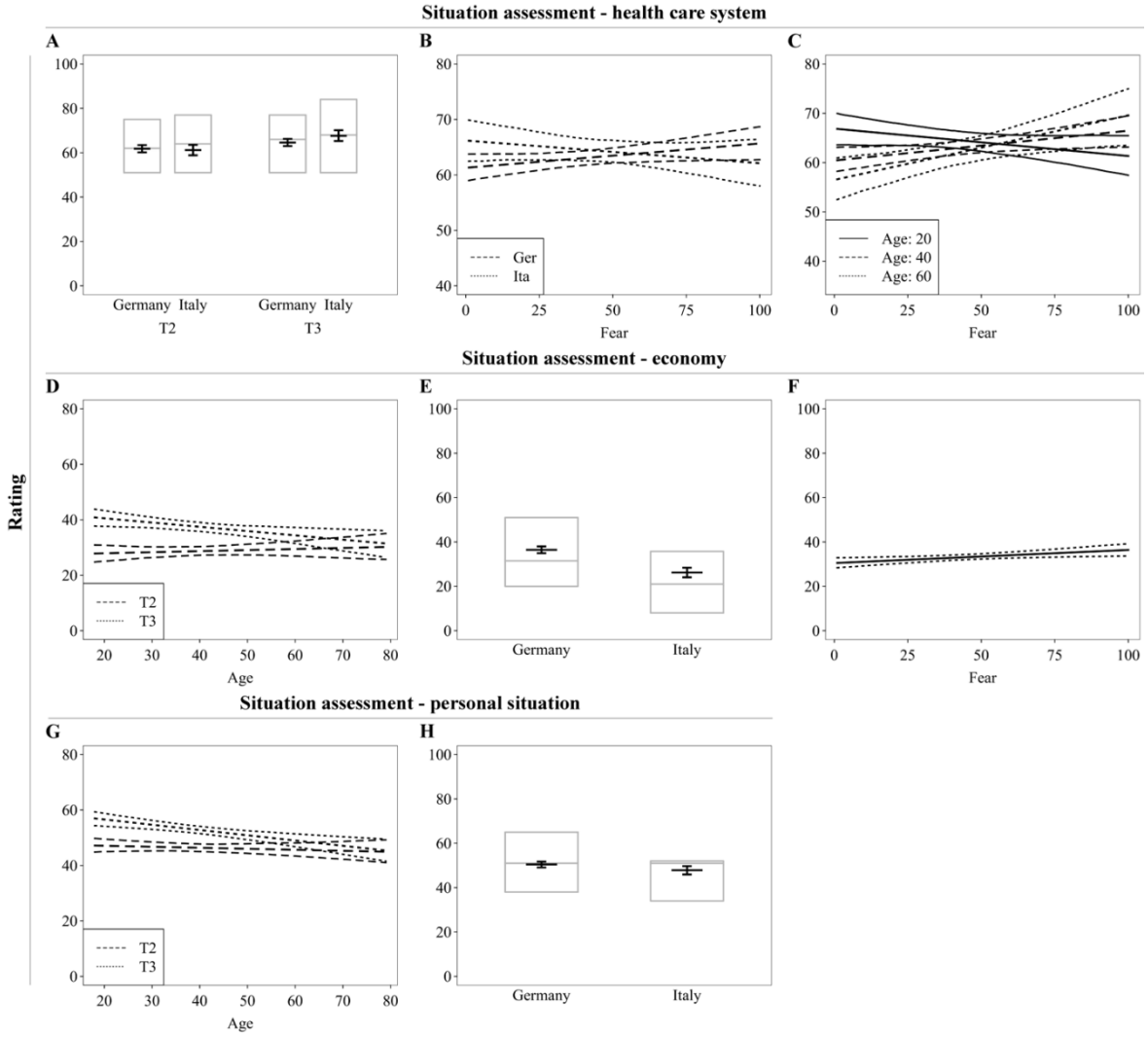
Regarding the economy, participants generally found that the economic situation got worse in T2 and T3 compared to T1 (M = 33.09, SD = 23.64). The interaction effect of assessment period and age was significant (χ^2 = 5.56, df = 1, p = .018). While at T2 participants of all ages showed a similar rating of the economic situation, at T3 older participants indicated that they thought that the economy had gotten worse compared to younger participants (Figure 14.D). Regarding country, Italians showed an overall lower rating of the economic situation (β = -10.23, SE = 1.36, p < .001; Figure 14.E). Moreover, participants with higher fear estimates judged the economic situation slightly better than participants with lower fear scores, independently of the country and assessment period (β = 1.54, SE = 0.60, p = .010; Figure 14.F).

For the personal situation, participants generally did not judge the situation better or worse in T2 and T3 compared to T1 (M = 49.60, SD = 20.36). However, similarly to the rating

of the economic situation, older participants indicated that their situation worsened in T3 but not in T2, as indicated by an interaction of assessment period and age (χ^2 = 7.23, *df* = 1, *p* = .007; Figure 14.G). In addition, and similarly to the economic situation, the personal situation was rated as worse in Italians compared to Germans (β = -2.61, *SE* = 1.20, *p* = .030; Figure 14.H).

Figure 14

Significant main effects and interactions for the situation assessment regarding the health care system, the economy, and personal situation.



Behavior changes

Participants indicated that they slightly increased their protective behavior in T2 and T3 compared to T1 (M = 60.94, SD = 23.74). Protective behavior was also higher in T3 compared to T2, with a higher increase for Germans compared to Italians (χ^2 = 8.32, df = 1, p = .004; Figure 15.A). The interaction of assessment period and fear was also significant (χ^2 = 8.55, df = 1, p = .003). Higher fear led to an overall increase in protective behavior with the effect being stronger at T2 compared to T3 (Figure 15.B). In addition, older participants reported an increase in protective behavior compared to younger participants, independently of the country and assessment period (β = 4.58, SE = 0.66, p < .001; Figure 15.C).

Confidence

Participants were asked how confident they felt about the current situation during the pandemic. Higher fear led to lower confidence ratings, which was amplified for Italians compared to Germans (χ^2 = 7.46, df = 1, p = .006; Figure 15.D). In addition, a slight increase in confidence at T3 compared to T2 could be observed for participants from both countries (β = 2.57, SE = 0.86, p = .003; Figure 15.E).

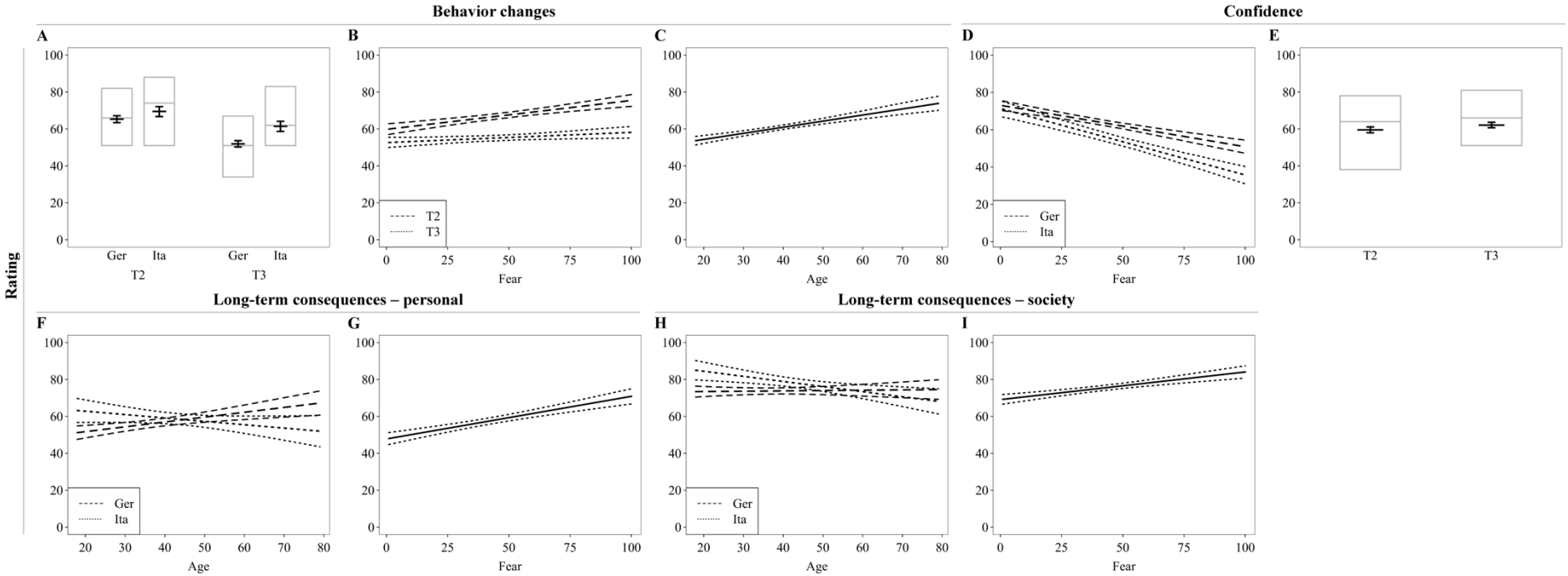
Long-term consequences

Participants were asked whether they believed that the pandemic would lead to long-term consequences for them personality and for society. Participants generally expected larger consequences for society as a whole than for them personally ($M_{personal}$ = 55.11, $SD_{personal}$ = 25.60; $M_{society}$ = 75.14, $SD_{society}$ = 20.53). However, for both questions, the same predictors showed a significant impact on the expected long-term effects: Younger Italians expected more consequences compared to younger Germans, while for older participants, this pattern was the opposite, with older Germans expecting more consequences than older Italians ($\beta_{personal}$ = -6.27, $SE_{personal}$ = 1.92, $p_{personal}$ = .001; $\beta_{society}$ = -4.32, $SE_{society}$ = 1.55, $p_{society}$ = .005, Figure 15.F, H).

In addition, higher fear led to the expectation of more long-term consequences ($\beta_{personal}$ = 6.01, $SE_{personal}$ = 0.87, $p_{personal}$ < .001; $\beta_{society}$ = 3.90, $SE_{society}$ = 0.70, $p_{society}$ < .001; Figure 15.G, I).

Figure 15

Significant main effects and interactions for the additional questions regarding behavior changes, confidence, and long-term consequences.



Discussion

Our study aimed to investigate how real moral dilemmas were judged during a worldwide pandemic. Although there is no consistent pattern of how the different scenarios were judged and affected by the predictors, each scenario on its own can help to gain a better understanding of human morality, much more than what can be learned from hypothetical trolley dilemmas.

There is no single right decision about whom to save in a situation of scarce medical resources (Iserson & Moskop, 2007). This is also reflected in the ratings of the triage scenario in our study. Most people gave a rating of 50, which indicates no clear priority for favoring older or younger people. However, for Germans, there was a preference to give the treatment to older people in T1 compared to Italians where more people indicated to give the treatment to younger people. This can likely be attributed to the differences in the severity of the outbreak during T1, where in Italy the hospitals were overloaded and triage had to be applied. Another study on the corona pandemic found that people favored younger people in triage scenarios (K. Huang et al., 2021). In moral judgments it has been found that people show a more lenient judgments when they gained from the behavior (Bocian & Wojciszke, 2014). In addition, individuals' opinion on fair resource allocation is strongly influenced by their self-interest (Kriss et al., 2011). Such a self-serving bias might have also driven the lower ratings for Italians in T1 as the more severe outbreak at the time in Italy compared to Germany made it more likely for (younger) Italians to need access to intensive medical care.

The utilitarian principle of maximizing the overall outcome is one underlying method for applying triage (Savulescu et al., 2020). According to Emanuel et al. (2020), saving a high number of people is not only following the utilitarian principle but also emphasizes the value of each human life. In Germany, the current triage protocol is based on prioritizing those with the highest chance of survival. Although it is clarified in the protocol that it is not allowed to

discriminate against any person (e.g., because of their age or preconditions), young and otherwise healthy people have better access to treatment according to this principle. In Italy, an age threshold was actually applied during the corona pandemic for resource allocation at the peak of the first wave (Mannelli & Mannelli, 2020). In addition to the triaging situation of which one of two corona patients is preferred for treatment, there are other forms of triage that become increasingly relevant the longer the pandemic lasts. Other diseases (e.g., cancer) also require immediate treatment but might be postponed to have space for the treatment of COVID-19 patients (Cannistra et al., 2020). Another example of triage concerns shortages of vaccines, which has led to the need of setting criteria for the priorization of certain populations (Gayle et al., 2020).

According to the protocol and practice during the corona pandemic, both in Germany in Italy, younger and otherwise healthy people had a better chance of survival in case of triage. In comparison, according to the participants' decisions in our study, the lot would have had to decide. Lay people finding it hard to decide in such ethical decisions shows how important proper guidelines are. Training about what critical care can do for realistic and informed decision-making on triage is necessary in setting such guidelines to follow (Flaatten et al., 2020). However, it is also important to consider the public opinion in making the guidelines to build public trust and provide broader acceptance of the implemented policies (Biddison et al., 2018).

While triage is a moral example where healthcare professionals are confronted with decisions that affect others, they are also faced with a moral decision for their own well-being. Medical professionals are often willing to sacrifice their own comfort for their patients. However, the course of the corona pandemic added an unforeseen risk to their profession. There are limits to sacrifices. This also applies to healthcare professionals who should not be placed on an unjustified high personal risk (Simons & Vaughan, 2020). In the moral scenario of the

old GP, we asked how acceptable it is for him to close his practice because he belongs to a high-risk group of an infection due to his old age. Generally, there was a high acceptance to close the practice with little variation across the three assessment periods. The higher the fear of the participants, the more acceptable it was found to close the practice. Participants might have imagined themselves in the same situation and evaluated the risk if the practice remains open accordingly. However, the effect of the influence of fear is small. Moreover, we found an interaction between country and age. There was almost no difference in age for German participants but for Italians, older people expressed a lower acceptance to close down the practice. This could be explained through the overburdened health care system in Italy during the first wave. The overburdened health care system could also explain why Italians showed a lower acceptance to close the practice in T1 and T2 compared to T3 and in general compared to Germans.

In a third scenario, we asked participants whether they find it acceptable to stockpile medical supplies and food for personal use. Stockpiling was in general not accepted with most people indicating that they find it reprehensible. Stockpiling has not only been described as irrational and impulsive but has also led to significant shortages for many people (e.g., Arafat, Kar, Menon, et al., 2020; Chen et al., 2020). It is particularly unethical towards disadvantaged groups because not everyone has the means to buy large stocks in advance. While the acceptability was generally low in our sample, some reasons might justify stockpiling behavior. It could be especially relevant for people who are more susceptible to the virus and people who were specifically encouraged to reduce their mobility, such as the elderly (Garbe et al., 2020). It is therefore not surprising that we found that, in T1, older people found it more acceptable to stockpile. In contrast to our findings, other studies did not find an effect of age on stockpiling (Dammeyer, 2020; Dinić & Bodroža, 2020; Yoshino et al., 2021). Moreover, a Japanese study has found that older people had fewer concerns about material sufficiency of daily goods, such

as toilet paper (Qian & Yahara, 2020), which speaks more in favor of older people not finding the need to stockpile. Although with considerable variation across the three time periods, our study indicates that increased fear has led to a higher acceptability of stockpiling, however, with considerable variation across the three time periods. This finding supports previous reports that found a relation of stockpiling and anxiety (Benker, 2021), as well as stockpiling and fear (Arafat, Kar, Marthoenis et al., 2020).

Overall, the participants in our study favored a fair allocation of resources. Similarly to stockpiling on an individual level, we asked two more questions regarding the distribution of goods on a societal level. First, we asked whether a hypothetical company should be restricted from selling scarce medical products to the general public and only to medical institutions during the pandemic. Second, we asked whether this company should be able to raise prices according to the increased demand and thereby increasing their profit margin.

For the first scenario, the judgments differed between T1 and T2/T3. This was additionally qualified by an interaction with age. In T1, older participants found market restrictions much more appropriate compared to younger participants. At the time, there was news about shortages of medical equipment in many parts of the world. For instance, in Italy, single-use high-filtration N-95 masks had to be used multiple times (Emanuel et al., 2020). Older people as potential high-risk groups might have been more concerned that they would not be properly treated if hospitals ran out of equipment. For T2 and T3, the age difference was much smaller and did not differ between the two assessment periods. During these times, the situation regarding both regulations like lock-downs as well as shortages regarding resources was considerably relaxed and people might have realized that there is no need to fear shortages of medical supplies. In addition, we found an interaction of country and fear, albeit with a small effect size. While generally, all participants favored restrictions, Germans found restrictions even more acceptable compared to Italians. For Italians, restrictions were especially high for

people with higher fear scores. In Italy, the health care system was generally more overloaded. People might have been more undecided regarding the restrictions because of the need to protect themselves with medical supplies in a system where they might not get access to sufficient care in medical institutions.

Regarding price gouging of medical supplies, such as facemasks or disinfectants, people showed a clear tendency to restrict companies from increasing prices. At the beginning of the pandemic, shortages in medical supplies were common and many people were confronted with unreasonable prices. We found a significant effect of age on the ratings of price gouging. Older people found it less acceptable to gain profit from adjusting prices. Potentially, the age differences are rooted in shifts in motives and moral motivation. Several studies found that people become more communally oriented with increased age and less agentic (Diehl et al., 2004; Walker & Frimer, 2015). Agentic individuals are defined through individual interests in the self, whereas communal motives promote the interest of others and contribute to social cohesion. Therefore, selfishly motivated profits might be more reprehensible by people with communal motives.

The study of repugnant market transactions, i.e., market exchanges that evoke aversion and may be constrained or prevented by third parties (Roth, 2007) offers an explanation for the results concerning market regulation and price gouging. Stricter market regulations were favored by the majority of the participants in our study. This does not only indicate that people find it unfair to exploit shifts in demand by raising prices (Kahneman et al., 1986) but that the desire for regulation might be rooted in moral outrage, an emotion that motivates people to punish others for exploitive behavior (Leuker et al., 2021). Moral questions of stockpiling retained relevance in the corona pandemic, especially regarding medical resources, such as vaccines. Despite calls for transnational solidarity, there were mainly profit-driven national strategies that led to high-income countries having easier access and higher availability of

treatments as well as vaccines (Moodley et al., 2021). Even before vaccines became available, scholars emphasized that high-income countries have a particular (moral) responsibility to insure a fair distribution of relevant resources (e.g., Chiriboga et al., 2020; Gostin et al., 2020). This claim is corroborated by the low acceptability ratings in our study. Both, personal and institutional stockpiling was condemned by the majority of the participants.

Protective measures, such as social distancing or mask-wearing, are commonly used methods of pandemic containment. However, public acceptance of the measures was mixed both in Germany and Italy (see e.g., Koos, 2021; Magnani, 2021; Metzger, 2021). General dissatisfaction with these measures is also reflected in our results regarding the target of measures and strictness of these policies. For both questions, most people were undecided whether measures should only apply to high-risk groups or the general public and how strict the measures should generally be. For the target of measures, this means that most participants favored a basic level of protective measures but also thought that stricter measures should apply to high-risk groups. This is in opposition to the regulations in Germany and Italy that have been applied to everyone regardless of their age or preconditions. Stricter measures for people based on their age or precondition are likely unlawful (see Art. 2 Abs. 1 GG and Art 3 Cost,).

Regarding the strictness of measures, the participants of our study favored a base level of restrictions for everyone, while fewer were inclined to impose strict restrictions out of solidarity with high-risk groups. People who reported higher fear favored less targeted measures to specific groups. Interestingly, however, people who reported higher fear were also in favor of looser lockdown measures to ease the economy, which was enhanced for German participants. This might be explained by the higher psychological distress that is caused by (the fear of) unemployment (see e.g., Liu et al., 2021). Another study has found that compliance with lockdown and social distancing measures depends mostly on people's normative obligation and intrinsic motivation to comply and not out of fear (Kooistra et al., 2020). While

fearful people might favor more lenient lockdown measures, it does not mean that they are less willing to comply with the measures that are implemented by the government. We also found that age influenced the decision for more strict or lenient restrictions in the opposite direction for Germans compared to Italians. In Germany, older people compared to younger people preferred stricter measures, whereas, in Italy, younger people favored stricter measures. There is no straightforward explanation for these differences. Although Germany and Italy are in close proximity, they differ in a number of demographics such as age structure, which has also shown to influence for instance the case-fatality rate in the corona pandemic (Dudel et al., 2020; Sudharsanan et al., 2020). Younger people might have felt a higher personal risk because of the higher case-fatality rate compared to Germany. In addition, they might have also perceived a higher risk for their relatives and therefore favored stricter measures.

In addition to the moral scenarios, we asked about other aspects of the health care system, the economy, participants' personal lives in T2 and T3, how participants changed their behavior in T2 and T3, and what long term-term consequences they expected for them personally and for society in T3. Taken together, these measures provide a good overview of how the situation in the two countries changed over time and how participants perceived the current situation and adapted their behavior accordingly.

We assessed how participants felt about their situation at T2 and T3 in comparison to T1 to get an impression of whether there are differences between Germany and Italy and between the assessment periods. Regarding the health care system, there was a slight improvement from T2 to T3. While for Italians, higher fear led to rate the situation of the health care system as worse, it was exactly the opposite for Germans. Regarding the economy, participants indicated that the situation deteriorated throughout our assessment periods but was less precarious in T3 compared to T2. Compared to Germans, Italians rated the impact of the corona pandemic on the economy as worse. For the personal situation, there was no difference

between the countries or assessment periods but older people indicated that their situation became worse compared to younger people who expressed that the situation for them was the same as before. The ratings show that both the health care system and the economy were burdened by the long-lasting consequences of the corona pandemic. This is also reflected by the high utilization rates of the hospitals (Pecoraro et al., 2021), as well as the drop in GDP of the two countries (McKibbin & Fernando, 2020). The higher fear scores for Italians regarding the health care system probably reflect the overburdening of the health care system in Italy.

Apart from a situation assessment, we asked whether participants' behavior changed in T2 and T3. Following a study by Harper et al. (2020) we assessed whether fear, assessment period, country, and age influenced behavior changes, such as hand washing, working from home, social distancing, travels, grocery shopping. Our results showed that there was an overall increase of behavior changes in T2 and T3 compared to T1, but this increase was lower in T3 compared to T2. Thus, the behavior changes were probably adaptive to the situation, which can change even in the course of a few months. In addition, higher behavior changes were reported by Italians compared to Germans, in particular in the elderly and people with higher fear. In the case of the corona pandemic, fear may have served as a protective function as it leads to adopting relevant behavior changes to mitigate the risk of a virus transmission, which was also reported in other studies (Harper et al., 2020; Winter et al., 2020; Yıldırım et al., 2021).

As another question to get a better insight on how participants felt about the current corona situation, we asked them how confident they feel. We found that people with higher fear reported significantly less confidence, especially in the Italian sample. Interestingly, the opposing influence of fear on behavior changes and confidence contradicts some findings of other studies. For instance, it was found that self-confidence and confidence in governmental and medical institutions sometimes tend to increase the adoption of prevention measures (Bargain & Aminjonov, 2020; Chan et al., 2020; Storopoli et al., 2020). However, consistent

with our results, anxiety was negatively correlated with confidence (S. Cui et al., 2021). Another study also found that preventive measures were predicted by self-reported worry (Sobkow et al., 2020). Thereby, fear can be a prominent predictor of preventive measures. Future studies need to clarify how this discrepancy between the findings can be explained.

As a final question in T3, we asked participants whether they expected long-term consequences for their personal life and society. Overall, the majority of participants indicated that they see substantial consequences for their personal lives but especially for society as a whole. In both questions, Italians predicted larger consequences compared to Germans; however, older people generally expressed to expect fewer long-term consequences. Participants with higher fear also saw more long-term consequences for society and their personal lives. Other studies showed that several factors related to the corona pandemic, such as consequences of a COVID-19 infection (del Rio et al., 2020), or school closures due to lockdowns (Fuchs-Schündeln et al., 2020) have long-lasting consequences on the social, economic and psychological well-being of people.

Conclusion

Our study provides insights into laypeople's moral decision-making and demonstrates changes in moral intuitions due to experiences with an ongoing pandemic. We found that the person variable nationality/country of residence, age, and fear, as well as the timely proximity to the situation where moral decision making occurred in real life affect judgments about moral dilemmas by the participants. Furthermore, the results from this study shed light on how policies are perceived by the public. The results in this study highlight the discrepancy between current guidelines and lay people's opinion about them. Public support for guidelines can increase accountability and legitimacy of certain measures. Humanity will have to deal with future crises, primarily the climate crisis, which will likely bring a repeat of epidemics and pandemics

(Manzanedo & Manning, 2020). Learning about public opinion from this pandemic will give society a better directive to handle future crises.

Development and Validation of a New German Questionnaire for the Assessment of Political Orientation

Abstract

Political orientation has a profound effect on human's individual and social decisions, yet an adequate tool to quantify it is missing. In personality research, it is common to use questionnaires to grasp the multifaceted nature of a construct. Thus, it is surprising that most studies that assess political orientation rely on self-reports using single-item scales, or use partisanship or party affiliation as a measure for political orientation. The current study developed and validated a contemporary German questionnaire of political orientation (CGPOQ). The questionnaire consists of 22 items that jointly comprise three main factors: "Tradition and National Security", "Sexuality and Gender", and "Global Thinking". We compared the final questionnaire to a self-assessment of political orientation and an older conservatism questionnaire as convergent measures, and empathy and religiousness as divergent measures of validity. Lastly, we compared participants' scores in the questionnaire with their party preferences. Our results show that the newly developed questionnaire is a good measure of political orientation in a German population.

Keywords: political orientation, questionnaire, validation, political ideology, conservatism

Introduction

Political orientation is related to a number of aspects of human cognition and behavior. Thus, it is becoming increasingly relevant in science, especially in political psychology, social psychology, and cognitive science. For instance, it has been found that people who vary in their political orientation differ in their physiological reactivity to threatening stimuli (Oxley et al., 2008), their moral judgments (Hannikainen et al., 2017), and several personality traits (Carney et al., 2008). In order to make profound claims about individual differences with regard to one's political orientation, it is important to have a good measurement.

In social psychology, political orientation is associated with several constructs such as conservatism (Hamilton, 2020), right-wing authoritarianism (RWA; Altemeyer, 1981), and social dominance orientation (SDO; Pratto et al., 1994). These constructs are sometimes even used for the measurement of political orientation, potentially because of the lack of a more appropriate measure. Conservatism can be defined as the instinctive human fear of sudden change, and tendency to habitual action, thus promoting traditional social institutions and preserving traditional values (Hamilton, 2020). In other words, conservatives do not fundamentally reject the new, but rather question the necessity of an innovation particularly critically. Conservatism can further be divided into political, economic and social conservatism. Political conservatism can be understood as an affiliation with policies or political parties that preserves the current state at the expense of innovation, economic conservatism relates to questions on how much governments should regulate enterprises and the lives of their citizens, and social conservatism includes cultural aspects, such as preserving ancient moral traditions of humanity (Everett, 2013).

Political orientation is often described in relation to the degree to which individuals or social groups adhere to a conservative ideology. Thus, measurements of conservatism are regularly used to assess a person's political orientation or ideology, which equates the concepts

to a large extent (e.g., Proch et al., 2019; van Leeuwen & Park, 2009). Wilson (1973) suggested three possibilities in how the construct of conservatism could be understood. First, he proposed a dimensional distribution from conservative to liberal. Second, he suggested a bipolar distribution that is almost dichotomous with no dimensions in between. Third, he said that conservatism could be conceptualized as a trait without an opposite pole. The first two propositions are widely accepted in social sciences and psychology and are usually assessed with single-item scales that either range from conservative to liberal (Graham et al., 2009; Inbar et al., 2012; Pratto et al., 1994), or a dichotomous categorization in conservative or liberal based on party affiliation or partisanship (e.g., Morgan et al., 2010; Osmundsen et al., 2021). However, using single-item self-report measures cannot account for the different meanings of conservatism or liberalism across different individuals and societies. The limitations of single-item scales have also been demonstrated by research of Feldman and Johnston (2014). They found that not only people who are socially and economically conservative self-define as conservative but also people who are socially conservative but economically liberal, and socially liberal and economically conservative may do so. When participants labeled themselves, many of them chose another label than conservative. Their results demonstrate that a self-placement on a single dimension cannot account for the ideological spectrum existing in a society. By using a unidimensional measure to map multidimensional preferences, meaningful variations within a political belief system will be lost. Further, these results highlight that the equation of conservatism and political orientation is debatable. Similarly, Zumbrunnen and Gangl (2008) found that there is conflict between cultural and economic conservatism, which exist as distinct strands and impact an individual's ideology independently. While cultural conservatism impacted participants' view on social issues (e.g., women's role in society), economic conservatism did not. Thus, conservatism can be understood as a broad umbrella term that subsumes political, economic, social, and cultural ideologies. Therefore, while conservatism certainly has a large overlap with political orientation, it cannot be used

synonymously. The opposite of conservatism is usually referred to as “liberalism”. However, this term is ambiguous in various ways and might not be an appropriate end of the scale within which conservatism is placed. As Feldman and Johnston (2014) showed, self-identification as liberal is dependent on the underlying ideology (e.g., economic or social). As another example, in Germany, the FDP (Free Democratic Party) is called the “liberal” party, mainly due to their stance on economic issues. However, in the positioning of political parties on the left-right continuum, they are relatively conservative (Infratest Dimap, 2015).

According to Converse (1964) political orientation can be defined as policy preferences or affiliation with certain political parties. Therefore, partisan identification is another commonly used measure to assess political orientation in current research. However, even though partisanship is a matter of political identification, it does not mean that party affiliation or voting behavior can grasp the full breadth of one’s ideology. For instance, categorization in Democrat or Republican, which is based on the political landscape of the US, is not only insufficiently differentiated, but does not make results of studies completely transferable to other cultural contexts. Especially in a multi-party system, policies and party programs are short-lived references and people might adapt their voting behavior accordingly (Clarke & Stewart, 1998). A human trait should not only be measured with a tool that relies on present circumstances but one that has some consistency over time. In multi-party systems, differences between parties are more subtle, especially when it comes to party programs or specific policies (Benoit & Laver, 2006). A categorical system (with only two expressions) cannot represent the diversity of such a complex construct. People might identify with some of a party’s objectives but lean towards another party concerning a different issue.

Another possibility that is used broadly to assess political orientation is to employ left/right self-assessment scales (e.g., Bayo-Moriones et al., 2015; Montagnoli et al., 2016). Historically, the terms left and right are derived from the seating order of the French Assembly

during the French Revolution (Bienfait & van Beek, 2001). Supporters of the king and thereby the ancient regime were seated on the right of the president, while those who supported the revolution were seated on the left side. The left/right distinction is well established in political terminology. The attractiveness to use left/right scales in psychological research might be that there is a certain comparability of estimates across time and country (Albright, 2010). Another advantage of this scale as a proxy for political orientation is that the ambiguous term "liberalism" can be avoided. However, the words "left" and "right" also have a number of implications. Inglehart and Klingemann (1976) found that the left-right assessment goes beyond measuring only political orientation. Besides ideological political identification, it includes party loyalty based on a party's reputation as well as social background factors, such as social class. Similarly, Bauer et al. (2017) found that there is no interpersonal comparability for left-right scales, which additionally depend on respondents' social and educational background. Left-right scales have also been found to measure a different construct than assessment scales on the conservative/liberal spectrum. For instance, a Finnish study with a representative sample found that the measures of political orientation based on left/right and conservative/liberal scales yielded the same results for only one of five foundations and varied for all the others (Kivikangas et al., 2017). Thus, while there is a correlation of left/right scales with conservatism/liberalism scales (see e.g., Proch et al., 2019), they cannot be used interchangeably.

The popularity to use single-item scales might stem from the lack of modern questionnaires that fit into current time and culture. Available measures to assess political orientation date back to the 1960s to 80s and hardly cover today's important political issues (e.g., Altemeyer, 1981; Wilson & Patterson, 1968). Furthermore, previous research on political orientation has been conducted almost exclusively in the US and is largely influenced by the US political system. Measures that are derived from this research might not be applicable to

other cultures and thus be susceptible to biases. To our knowledge, there is no questionnaire that has been developed for a German or, more general, a German speaking sample that considers its cultural specificities. Most scales that are used in the German language were translated and validated from existing US-American questionnaires (e.g., *Machiavellismus-Konservatismus*, Cloetta, 2014; *Revision einer Konservatismusskala*, König & Frank, 2000). In addition, studies on political orientation often lack diversity and representativeness on a socio-economic level as they mainly use university student populations (Zmigrod & Tsakiris, 2021). Developing a questionnaire that measures political orientation based on Germany's cultural specificity is therefore a gap that needs to be filled in order to make adequate and reliable claims about this population.

The present study intended to develop a short but comprehensive and up-to-date measure of political orientation and validate it in the German context, which accounts for the above-mentioned shortcomings. Since it is important to represent the entirety of a society to draw conclusions for that population, we aimed for a diverse sample and included people of different ages, genders, and education levels who come from rural and urban areas of different regions. Importantly, we did not develop the items of the questionnaire based on previous questionnaires but developed them based on participants' answers to a multi-item report in a pilot study where they were asked about topics of interest of conservatives and liberals. By using this approach, the questionnaire is specific to the societal context of Germany but not dependent on current party programs. The development of the questionnaire followed an approach by Everett (2013) and was exploratory. Methodologically, we aimed at extracting and clustering items that define a measure for political orientation and possible subscales. With regard to the validation of the questionnaire, we had the following hypotheses: To evaluate the convergent validity of a questionnaire, it should show a high correlation with other questionnaires that measure the same or a similar construct. Our hypothesis was, that our newly

developed Contemporary German Political Orientation Questionnaire (CGPOQ) should positively correlate with an older questionnaire to measure political orientation (König & Frank, 2000), and self-reported political orientation on a single-item scale from conservatism/liberalism.

In order to test the discriminant validity of a newly developed questionnaire it is necessary to compare it to traits that are distinct but still related to the trait of interest. Several studies have substantiated a link between a conservative attitude and religiousness (e.g., Brady et al., 2018; Johnson et al., 2016; Kelly & Morgan, 2008; Lewis & Maltby, 2000; Piazza & Sousa, 2014) as well as a liberal attitude and empathy (e.g., Hasson et al., 2018; Sirin et al., 2017; Wagaman & Segal, 2014). In line with this, we expected that the newly developed CGPOQ (higher scores indicating a more conservative attitude) will correlate negatively with a questionnaire measuring empathy (Paulus, 2016) and positively with a self-assessment of religiousness. Since empathy and religiousness are related but different constructs, the correlations of empathy and religiousness with the new questionnaires should be smaller than the correlation with the measure by König and Frank (2000) and the single-item measure of political orientation. As a measure for criterion validity, we compared the participants' scores in the new questionnaire based on their party affiliation. We expected that voters of conservative/right parties (AfD, CDU/CSU) would differ from voters of liberal/left parties (Die Linke, Bündnis 90/GRÜNEN) in their answers in the CGPOQ.

Methods

Item Selection

An exploratory study based on the approach by Everett (2013) was used as a basis for generating the items for the questionnaire. We asked 117 native German speakers (69 females, 48 males, M_{age} = 42.04, SD = 16.93 years) what they define as common characteristics of social

and political conservatism or liberalism. More specifically, we asked: “Please write down what you consider to be the 5 most important topics of interest to very conservative compared to very liberal people when it comes to social questions and political questions. For example, one could think that “the man as the head of the family” characterizes conservatism and “welfare benefits” characterizes liberalism”. Participants answered the questions on a computer and could name as many topics as they could think of in a text box. Issues that were reported by at least 15% of the participants were used to formulate 47 items that were used in the present study.

Data Collection & Participants

The study was preregistered on the open science framework before data collection (osf.io/px9h2). Data collection was conducted online using the online survey tool *formR* (Arslan et al., 2020). All participants gave informed consent in accordance with the Declaration of Helsinki by pressing an “I agree” button located beneath an explanatory letter before filling out the study. Participants were able to perform the study at home on their own computers or mobile devices in their own time but were asked to turn off all interfering factors (e.g., music, other websites, and television) and conduct the study without pausing. Eligible participants were German citizens over 18 who speak German at a very good level and are allowed to vote in a federal election in Germany. They were recruited through our lab database, postings on stores, social media sites and advertisements in newspapers. As reimbursement, participants could receive personalized feedback and enter a lottery to win a total of 1100€. The sample size was determined on the N:*p* ratio (Costello & Osborne, 2005), which suggests a ratio of at least 1:20 participants before items are dropped. Therefore, we aimed to collect data from 1000 participants to adjust for possible item heterogeneity and participant exclusion based on the attention checks. Data was collected from 1089 participants (762 females, 319 males, 8 others, M_{age} = 31.74 years, SD_{age} = 13.19) who filled out the whole survey. Participants were excluded if they failed one of two grammar questions, which also served as an attention test. This resulted

in a complete data set of 1044 participants (738 females, 298 males, 8 others, M_{age} = 31.65 years, SD_{age} = 13.25, $Range_{age}$ = 18 – 93). Additional demographic data that we collected were highest education, German state of residence and the size of hometown by number of inhabitants (Appendix D, Table D1).

Measures and Questionnaires

The measured variables included items that were developed for the new *Contemporary German Political Orientation Questionnaire* (CGPOQ) and other measurements of political orientation or related traits, which were used to assess the validity of the CGPOQ and are described in more detail below.

CGPOQ. The 47 items that were created for the CGPOQ are short written statements (all items can be found in Appendix D, Table D2). During testing, items were presented one by one in a random order for each participant to avoid sequence effects. Participants indicated how much they agreed or disagreed with the statement on an 11-point percentage scale from 0% = completely disagree to 100% = fully agree. For 23 formulated items, a higher score reflected a more conservative orientation. The other 24 items were formulated so that a higher score indicated a more progressive orientation.

Measures of Validity. In order to assess the validity of the CGPOQ, other measures of political orientation and related concepts were included. The main measure of convergent validity was the *Konservatismusskala* (König & Frank, 2000), which is a revised German version of the conservatism scale by Wilson and Patterson (1968). The scale consists of 41 key words or phrases (e.g., “Authoritarian education”, in German: “Autoritäre Erziehung”) and the answer possibilities “very positive attitude”, “rather positive attitude”, “rather negative attitude, “very negative attitude”, and “do not know the term”, corresponding to values between 1 (= very conservative) and 4 (= very liberal), with 14 reversely coded items.

To compare the CGPOQ to the assessment of political orientation through single-item scales, we used a single-item self-assessment with the question: “How would you assess yourself with regard to your attitude towards political, social and other public issues?” (in German: “Wie würden Sie sich selbst einschätzen bzgl. Ihrer Haltung in politischen, sozialen und weiteren gesellschaftlichen Fragen?“). Participants answered this question on a 9-point Likert scale from - 4 = very conservative to + 4 = very liberal.

In order to have two more distantly related constructs to compare with the CGPOQ, we chose empathy and religiosity as measures of divergent validity. Religiosity was assessed with the question “I would describe myself as” (in German: “Ich würde mich selbst beschreiben als”) from “1 = not at all religious” to “7 = very religious”. Empathy was measured using the *Saarbrücker Persönlichkeitsfragebogen* (SPF; Paulus, 2016), which is a validated German questionnaire based on the Interpersonal Reactivity Index (M. H. Davis, 1980). It consists of 16 items in form of short statements including the subscales of empathic concern, fantasy, personal distress, and perspective taking. The statements were rated from 1 = never to 5 = always, with higher values indicating higher empathy. A mean score for the questionnaire was computed based on the corresponding manual (Paulus, 2016).

Finally, we assessed party affiliation, which served as a measure to determine criterion validity. We asked: “Which party can you identify with the most?” (in German: “Mit welcher Partei können Sie sich am meisten identifizieren?“). Participants could choose from the following parties that were presented in alphabetical order: CDU/CSU, SPD, AfD, FDP, Die Linke, Bündnis90/ Die Grünen, Die PARTEI, Freie Wähler, andere (other). We chose the above parties because they were the eight parties with most votes (> 1%) in the German federal election in 2017.

In addition to the above mentioned measures, we assessed items measuring attitude specific political issues and belief superiority (Toner et al., 2013), personality traits using the

BFI-K (Rammstedt & John, 2005) and three more measures of party affiliation, namely: “If today was a federal election, which party would you have voted for?” and “Which party did you vote for in the last/second last election (federal or state)?”. These questions are not part of the current manuscript and are therefore not discussed further.

Results

Item Analysis

First, we recoded items so that a higher score indicated a more progressive/liberal orientation. In the following, a higher score reflects a more conservative orientation for all questionnaires. Since extreme skewness and kurtosis might be problematic for the computation of an exploratory factor analysis (Muthén & Kaplan, 1985) and can result in artificial factors (Bandalos & Gerstner, 2016), items with a critical skewness of +/- 2 and a kurtosis of +/- 7 were excluded on basis of recommendations by Curran et al. (1996). There were 7 critical items. However, one critical item that did not meet the skewness criterion (item 41) was kept because of an additional analysis with a subsample, which is described in more detail below. Overall, we excluded 6 items due to critical kurtosis and skewness. Subsequently, we conducted an item-analysis where items were assessed with regard to their item-total-correlation. Since we assumed a general underlying construct of political orientation, we decided to exclude items that did not correlate well with the whole scale ($r < .40$). We excluded items stepwise, since the exclusion of one item has a direct impact on the whole analysis (Moosbrugger & Kelava, 2020). First, we removed six items with an item-total-correlation below .20. Then, we repeated the analysis and excluded three more items with an item-total-correlation below .30 step by step until every item passed the criterion. Next, we excluded additional five items that had an item-total-correlation below .40. Overall, we excluded 20 items and were left with 27 items for the subsequent analyses.

Exploratory Factor Analysis

We conducted an *exploratory factor analysis* (EFA) using *principal axis factoring* to infer about the relationship between different items and their underlying constructs. We chose this method over the data reduction method of *principal component analysis* (PCA) since EFA is more appropriate for the purpose of discovering an underlying structure of latent variables (Costello & Osborne, 2005). The EFA and the corresponding requirements and values were calculated with the *psych* package (Revelle, 2020) in RStudio (R Studio Team, 2020).

First, we tested whether the data was suited for an EFA. The histogram of the correlation matrix was normally distributed with many correlations above .30 and no correlations above .80 (see Appendix D, Table D3, for correlation matrix of all items that went into the EFA). Bartlett's test of sphericity was significant ($\chi^2(351) = 14092.75$, $p < .001$), which indicated that all correlations in the correlation matrix were significantly different from 0 and therefore suitable for factor analysis. Kaiser-Meyer Olkin criterion of sampling adequacy yielded a mean of 0.95 (*Range* = 0.89 - 0.98), which is considered to be excellent (Hutcheson & Sofroniou, 1999).

To determine how many factors should be extracted, we used a combination of methods. We calculated a first unrotated EFA and obtained three factors with eigenvalues greater than 1, applying the Kaiser criterion (Kaiser, 1960). Taken together, the three factors explained 49% of the variance of the data, with the first factor explaining 35% (eigenvalue = 9.51), the second explaining 9% (eigenvalue = 2.33), and the third explaining 5% (eigenvalue = 1.23). The scree plot (Cattell, 1966) showed a point of inflexion at the 4th factor (Appendix D, Figure D1), also indicating the extraction of three factors. We additionally used the Minimum Average Partial Correlation Test (MAP; Velicer, 1976) as it has been suggested to be a more reliable factor extraction method (Costello & Osborne, 2005). The MAP reached a minimum of 0.01 with three factors. The last method we used was parallel analysis (Horn, 1965), which suggested

the extraction of 5 factors. Since the parallel analysis is also a highly recommended method to determine the number of factors to extract (Costello & Osborne, 2005) and was deemed to be the most accurate criterion by Hayton et al. (2004), we compared factor solutions with three, four, and five extracted factors. Solutions that included more than three extracted factors had very few items that loaded on two of the four or five factors, and many of those items displayed cross loadings, leading to their subsequent exclusion. However, since factors should at least contain three items (Costello & Osborne, 2005), these factors would have had to be dropped in further analyses. Considering these results as well as the results from the other extraction methods, the final decision was to extract three factors.

We chose an oblique rotation method, namely *oblimin* rotation because we expected factors measuring different facets of political orientation to correlate with each other. When factors are in fact uncorrelated, orthogonal and oblique rotation have been shown to create nearly the same factor structure while orthogonal rotation can result in loss of information if items are correlated (Costello & Osborne, 2005). After factor extraction, items that did not load above .3 on any factor (1 item), as well as items that showed considerable cross-loadings (4 items) were excluded. Cross-loadings were assessed following two criteria for exclusion (Fürntratt, 1969; Rost & Schermer, 1986) in a stepwise fashion, until all items passed both criteria. Both criteria were converging in nearly all cases. In total, we excluded another five items from the 27 items initially used for the EFA, which left 22 items in the questionnaire.

There was a non-representative bias regarding party affiliation in our sample, with more progressive voters being overrepresented. To ensure that our analysis and factor structure was not affected by this, we repeated the whole analysis with a subsample of participants. In this subsample (N = 361, 252 female, 106 male, 3 other, M_{age}=33.36 years, SD_{age} = 13.79, $Range_{age}$ = 18 – 93), participants were drawn randomly from the main sample in a way that their party affiliation matched the results of the federal election of the German Bundestag in 2017. The

factor structure, which we obtained from the weighted subsample, was nearly equal to the structure of the main analysis. The first factor contained three items less (item 6, item 10), which were excluded due to insufficient item-total-correlation, or crossloadings (item 3). The second factor contained two more items (item 28, item 41), which fitted the overall topics of the other items of this scale (see Appendix D, Table D2, for overview of items). Item 28 was excluded in the main analysis due to cross-loadings. Item 41 was initially excluded due to skewness in the more progressive main sample. However, as this exclusion criterion was not met in the more representative subsample, we decided to keep the item in the main EFA. This did not affect the factor structure or the loadings of other items. The item passed all other exclusion criteria, had a strong loading of .82 on the second factor and was thematically consistent with the other items on the scale.

Factor Structure

The final questionnaire consists of 22 items. The factor structure (Table 6) explained 47.15% of variance, with factor 1 (11 items) explaining 22.73%, factor 2 (5 items) explaining 13.85%, and factor 3 (5 items) explaining 10.57% of the data. Mean communality was .47, with no items having communalities below .20. This is acceptable considering our large sample size of N > 1000 (MacCallum et al., 1999). Chi-square test was significant with χ^2 (168) = 609.20, $p < .001$. Since the power of chi-square test approaches 1.0 in large sample sizes and even trivial differences will be detected (West et al., 2012, p.211), Chi-square ratio was calculated. It implied a good model fit as it was lower than 5 (χ^2/df = 3.63) as suggested by Wheaton et al. (1977).

The three factors were interpreted in the following way:

(1) Tradition and National Security: This factor includes strengthening Germany as a national state and its (Christian) values, continuing traditions and focusing on

hierarchy, merit and respect, for example “Germany is based on Christian values that must be protected by the state.”

(2) Gender and Sexuality: This factor includes questions about the understanding of marriage and family, gender roles, and the understanding of gender, for example “Gender cannot just be divided into two categories, thus other gender identities need to be recognized.”

(3) Global Thinking: This factor includes tolerating minorities, looking beyond issues of the own country and being inclusive, for example “An open attitude towards other opinions and cultures is important”. It also includes items on climate change and views on the death penalty. Overall, this factor is relatively heterogeneous.

All items had moderate to good loadings with minimum loadings of .40 and maximal loadings of .89. Internal consistency was good, with Cronbach’s alpha of .91 for the whole CGPOQ scale, .89 for Tradition and National Security, .85 for Gender and Sexuality and .72 for Global Thinking.

Table 6

List of final 22 items and corresponding factor loadings

	Factor loadings of oblimin rotated PCA		
Item (original number, r = reverse scored)	Tradition and National Security	Gender and Sexuality	Global Thinking
Deutschland muss gestärkt werden und unabhängig von anderen Staaten sein. (3)	**.51**	-.05	.36
Wir brauchen ein Bildungssystem, das an Leistung orientiert ist. (4)	**.41**	.04	.14
Deutschland braucht eine starke Industrie und muss wirtschaftlich wettbewerbsfähig bleiben. (6)	**.60**	-.01	-.08
Für besonders schwere Verbrechen sollte die Todesstrafe erlaubt sein. (8)	.23	.02	**.44**
Menschen, die viel leisten, sollen auch viel verdienen und nicht alles an den Sozialstaat abgeben. (9)	**.51**	-.01	.19
Kontinuität und Stabilität in der Gesellschaft stärken Deutschland. (10)	**.59**	-.02	-.06
Deutschland fußt auf christlichen Werten, die staatlich geschützt werden müssen. (11)	**.58**	.17	-.09
Minderheiten müssen toleriert und integriert werden. (15, r)	.01	.17	**.68**
Deutschland muss vorwiegend als Teil der Europäischen Union handeln, statt als Nationalstaat. (16, r)	.18	.04	**.40**
Klima- und Umweltschutz müssen gestärkt und finanziell gefördert werden. (18, r)	-.01	.28	**.42**
Die Homo-Ehe muss der Hetero-Ehe gleichgestellt sein. (21, r)	.04	**.89**	-.04

Traditionen und Werte sind wichtig und müssen bewahrt werden. (25)	**.78**	.11	-.10
Klassische Geschlechterrollen sollten beibehalten werden. (26)	.22	**.46**	.10
Es muss Regeln und Disziplin geben. (27)	**.66**	- .01	-.09
Respekt gegenüber Höhergestellten und Älteren ist eine wichtige Tugend. (29)	**.68**	- .04	-.07
Deutschland ist unsere Heimat, deren Wert als Nation es zu schützen gilt. (31)	**.74**	-.04	.23
Wir müssen unsere eigene Kultur bewahren und uns vor Entfremdung schützen. (33)	**.59**	.06	.35
Der Zusammenhalt einer Familie ist wichtig und sollte einen hohen Stellenwert in der Gesellschaft haben. (35)	**.64**	.00	-.12
Ein progressives Ehe- und Sexualverständnis ist wichtig. Alle Formen der Ehe sollten gleichgestellt sein. (39, r)	.00	**.84**	.00
Ein offener Umgang mit anderen Meinungen und Kulturen ist wichtig. (40, r)	-.03	.06	**.69**
Neben dem klassischen Familienbild müssen auch andere Familienforme (z.B. Patchwork, gleichgeschlechtliche Eltern) ebenso akzeptiert und unterstützt werden. (41, r)	-.07	**.83**	.04
Geschlecht ist nicht nur in zwei Kategorien einteilbar, deshalb müssen auch andere Geschlechteridentitäten anerkannt werden. (45, r)	.10	**.48**	.21
Number of items per factor	12	5	5
% of variance explained	22.73	13.85	10.57

Note. Factor loadings printed in bold indicate the factor the item belongs to. Explained variance of the whole questionnaire is 47.15%. Full list of items before exclusion and their English translation can be found in Appendix D, Table D2.

Distribution of CGPOQ and Subscales

Descriptive statistics for the total CGPOQ score and the subscales can be found in Table 7. Whereas histograms of the total CGPOQ and the subscale Tradition and National Security followed a near central and only slightly skewed distribution, the subscales Global Thinking and Gender and Sexuality are skewed to the right. Shapiro-Wilk tests for normality were significant for the whole scale and all subscales (all *p*s < .001), thus, indicating a non-normal distribution for all scales. As a consequence, non-parametric tests were used for all further analyses. Spearman's rank correlation coefficient was used for correlational analyses, Kruskal-Wallis test for variance analyses and Wilcoxon rank sum test for pairwise comparisons. Factors were correlated with each other, with Tradition and National Security and Gender and Sexuality correlating with r_s = .47 (p < .001), Tradition and National Security and Global Thinking correlating with r_s = .57 (p < .001), and Gender and Sexuality and Global Thinking correlating with r_s = .54 (p < .001).

Table 7

Descriptive statistics for the CGPOQ, its subscales, and other measures of political orientation.

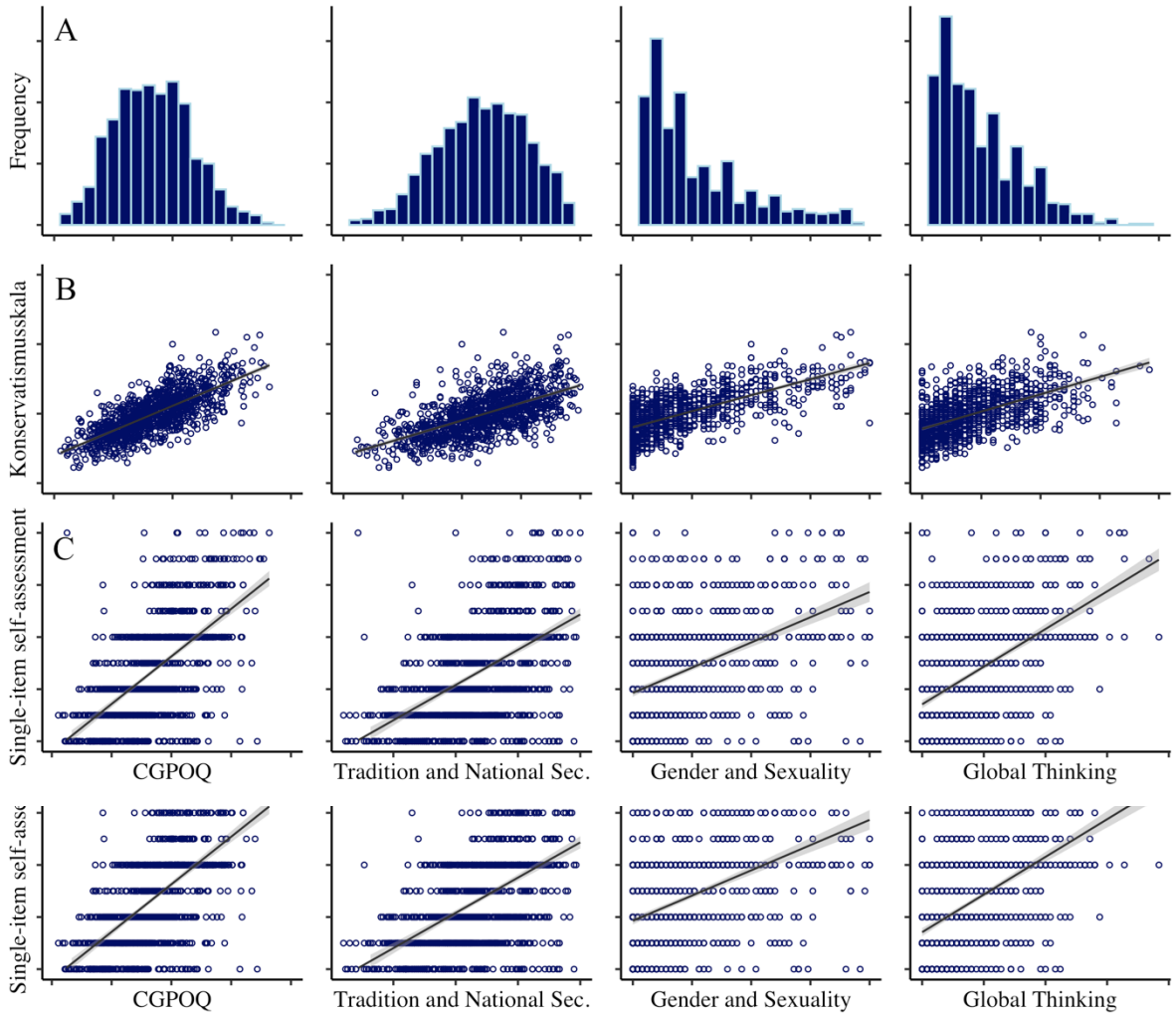
Scales	*Mean*	*Median*	*SD*	*Q1*	*Q3*	*Skewness*	*Kurtosis*
CGPOQ	41.66	40.91	16.31	29.55	52.73	0.23	-0.32
Tradition and National Security	59.01	60.00	19.07	45.83	74.17	- 0.24	- 0.48
Gender and Sexuality	20.43	12.00	22.83	2.00	30.00	1.42	1.45
Global Thinking	21.25	16.00	17.66	8.00	32.00	1.00	0.61
Konservatismusskala	1.99	1.98	0.31	1.78	2.19	0.35	0.12
Single-item self-assessment	-1.35	1.92	-2	-4	0	0.56	-0.31

Validity

As a measure of convergent validity, we used the Konservatismusskala (König & Frank, 2000) and the single-item self-assessment on the conservative/liberal spectrum. The Konservatismusskala was slightly skewed to the right, with participants mostly scoring at the lower end of the scale. Figure 16.B shows the relationship of the Konservatismusskala and the CGPOQ. The CGPOQ correlated with the Konservatismusskala with r_s = .75 (p < .001) indicating a strong relationship. Correlations with the subscales of the CGPOQ were slightly lower but still high with r_s = .63 for Tradition and National Security, r_s = .66 for Gender and Sexuality and r_s = .58 for Global Thinking (all ps < .001). The single-item self-assessment also correlated highly with the CGPOQ (see Figure 16.C) with r_s = .62 (p < .001). Correlations with the subscales of the CGPOQ were r_s = .54 for Tradition and National Security, r_s = .49 for Gender and Sexuality and r_s = .52 for Global Thinking (all ps < .001).

Figure 16

Frequency plot (A), correlation with the Konservatismusskala (B), and (C) the single-item self-assessment for the CGPOQ and its subscales.



Note. CGPOQ and subscales range from 0 = very progressive to 100 = very conservative, Frequency range from 0 – 150, Konservatismusskala ranges from 1 = very liberal to 4 = very conservative and single-item self-assessment ranges from -4 = very liberal to +4 = very conservative.

As measures for divergent validity, we assessed the correlations with the related but distant traits religiousness and empathy. Religiousness showed a small but significant correlation with the whole CGPOQ (r_s = .18, p < .001), Tradition and National Security (r_s= .19, p < .001), and Gender and Sexuality (r_s = .16, p < .001). Global Thinking did not correlate significantly with religiousness (r_s= .01; p = .808, Figure 17.A). Empathy showed a significant negative correlation with the whole CGPOQ scale (r_s = - .25, p < .001), as well as with the

subscales Tradition and National Security (r_s = -.17, p < .001), Gender and Sexuality (r_s = - .23; p < .001), and Global Thinking (r_s = - .28, p < .001; Figure 17.B). Overall, the measures of convergent validity showed larger correlations (*r*s = .49 - .75) than the measures for divergent validity (*r*s = .01 - .28). As a measure of criterion validity, we looked at the relationship of the CGPOQ with party affiliation. We assumed that the CGPOQ scores of the participants would differ depending on their party affiliation. Figure 17.C shows that more conservative associated parties like the AfD and the CDU showed a more conservative distribution of CGPOQ scores than more progressively associated parties like die Linke oder Bündnis 90/Die Grünen. The Kruskal-Wallis test was significant ($\chi^2(8) = 357.41$, $p < .001$), indicating a relationship between party affiliation and the CGPOQ score. Post-hoc pairwise comparisons showed that CGPOQ scores could differentiate between more progressive and more conservative parties (see Table 8).

In sum, the CGPOQ showed a strong relationship with other measures of political orientation and correlated considerably lower with more distantly related measures, demonstrating construct validity by both possessing convergent and divergent validity. CGPOQ scores also differed reliably between different party affiliations, demonstrating criterion validity.

Figure 17

Divergent and Criterion Validity. A) Relationship of Religiousness and CPOCQ score. B) Relationship of Empathy and CGPOQ score. C) Relationship of Party Affiliation and CGPOQ score

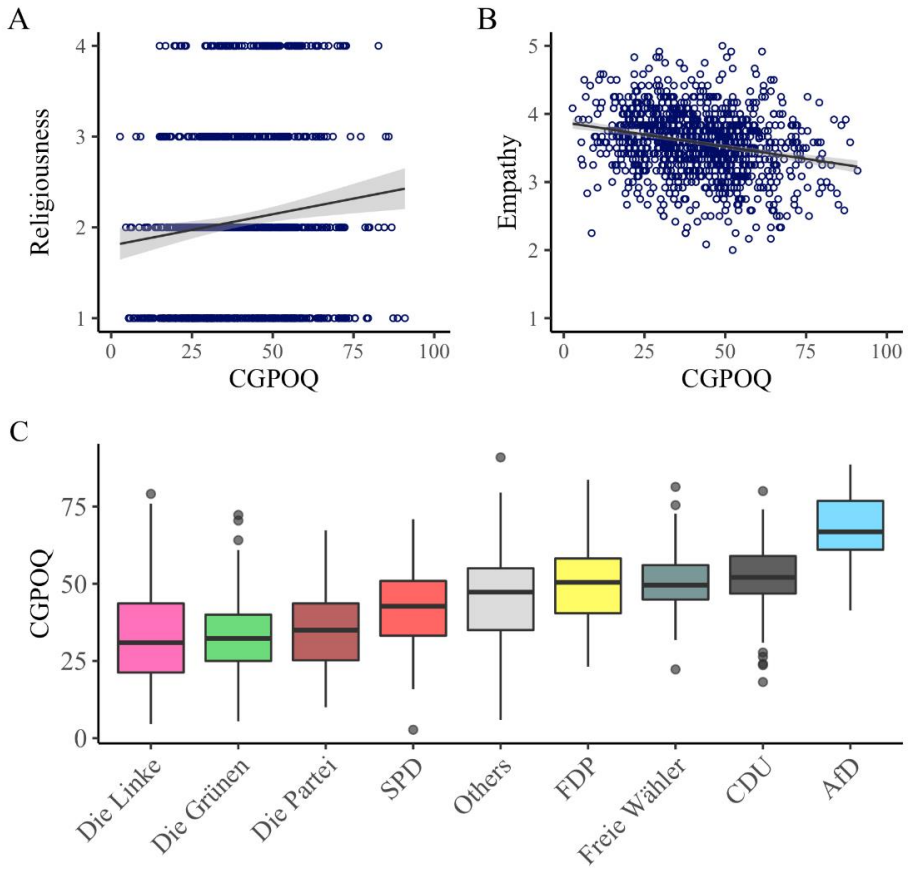


Table 8

P-values of post-hoc pairwise Wilcoxon tests

	Die Linke	Die Grünen	Die Partei	SPD	Others	FDP	Freie Wähler	CDU
Die Grünen	1	-	-	-	-	-	-	-
Die Partei	1	1	-	-	-	-	-	-
SPD	< .001	< .001	.01	-	-	-	-	-
Others	< .001	< .001	.001	1	-	-	-	-
FDP	< .001	< .001	< .001	.01	1	-	-	-
Freie Wähler	< .001	< .001	< .001	.23	1	1	-	-
CDU	< .001	< .001	< .001	< .001	.01	1	1	-
AfD	< .001	< .001	< .001	< .001	< .001	.001	< .001	< .001

Discussion

The aim of the current study was to develop a short but comprehensive German questionnaire to measure political orientation. Using a novel approach, we consecutively developed items that were clustered in three underlying factors in an exploratory factor analysis, namely “Tradition and National Security”, “Gender and Sexuality”, and “Global Thinking” with 22 items in total. To our knowledge, the CGPOQ is the first questionnaire specifically designed for a German population based on current political topics but detached from specific party programs. As such, it is an excellent tool for studies that investigate the processes and influences of political orientation. The CGPOQ showed a strong relationship with measures of convergent validity and criterion validity, and smaller correlations with measures of divergent validity, indicating good quality for the measurement of political orientation.

Political orientation is a multifaceted concept, a characteristic which should also be reflected in a variety of dimensions in its assessment (Feldman & Johnston, 2014). The

dimensionality of the CGPOQ with three underlying factors is very different from other commonly used scales in the assessment of political orientation, which are mostly uni- or bi-dimensional. One explanation for this discrepancy is that our questionnaire is the first one that specifically created items based on a pilot study for a German sample. Germany differs not only culturally but also with regard to its political system from the US where most assessment tools for political orientation were developed and are used. Germany's multi-party system as opposed to dual party systems might have led to a different underlying dimensional pattern of political orientation. The importance of considering cultural aspects in research is reinforced by studies that have found country differences in the assessment of personality variables (e.g., Allik & Mccrae, 2004; Romano et al., 2021). An assessment tool that is tailored to a specific country or society will help to make adequate claims about it. A similar approach to ours could be used in other countries to get a better measure of political orientation in dependency of the respective cultural specificities.

Apart from cultural specificities, a questionnaire should be constructed by using a representative sample. As Harman (2018) has pointed out, studies on political orientation are mostly conducted with Western convenience (i.e., student, left oriented) samples, which limit the interpretation of their results. Although our sample is not fully representative, we were able to collect a diverse sample with data from people of different ages, genders, and education levels who come from rural and urban areas of different regions in Germany. We especially encouraged supporters of conservative parties to take part in our study to address the biased treatment of political conservatives in current research. The replication of the results with the more representative subsample regarding party affiliation implies that the bias in our overall sample did not impact the factor structure.

The three factors of the CGPOQ vary in the number of items that are included. The first factor "Tradition and National Security" includes 11 items and explains most variance

(22.73%). A strong first factor has also been found in other scales that measure political orientation or conservatism (e.g., Everett, 2013; König & Frank, 2000; Wilson & Patterson, 1968) and can likely be subsumed as a social conservatism/tradition factor. In all questionnaires, this factor includes items concerning the role of family in society, traditional and religious (Christian) values, as well as items that focus on the preservation of "own" vs foreign culture. It seems that this strong first factor is stable over time, as it remains consistent over the years across several scales, even though the political landscape has changed significantly in recent decades. The second factor Gender and Sexuality is straightforward and rather narrow in content. While it cannot account for measuring political orientation by itself, this factor could be particularly valuable for studies that focus on the topic of gender and sexuality. The third factor, Global Thinking, is not as cohesive as the first two factors but broader in content. The overarching questions that the items of this factor address are of supranational importance, such as the climate crisis and societal change due to migration. In comparison to the first factor, the second and third factor of the CGPOQ focus more on current policies and socio-political issues, include fewer items and explain less variance compared to the first factor. Due to society's evolving values and changes in acceptable behavior, measurements of political orientation are only appropriate for a certain amount of time and lose their measurement precision (Henningham, 1996). Thus, it is likely that the third and second factor will vary slightly over the years when political content changes. Looking at the three factors separately will give a more comprehensive picture than a single overall score. All the factor intercorrelations were around $r = .50$, indicating that each factor adds unique variance to the overall construct of political orientation. At the same time, they are high enough to assume a single underlying construct. Therefore, we believe that an overall score across all items of the three factors reflects the political orientation of an individual.

Although the factor structure of the CGPOQ breaks with the uni- or bi-dimensional assessment of political orientation in numbers of included sub-constructs, we still needed to label the ends of the scales of the questionnaire. Benoit and Laver (2006) have pointed out that "there is no 'one true' dimensionality for any given policy space" (p. 159). However, conservative/liberal, and left/right have been the primary methods of classifying political orientation. It is questionable whether the labels for the endpoints of political ideology scales can be used interchangeably since they have great influence on the self-identification with them. For instance, Kivikangas et al. (2017) found differences in political ideology between left/right and conservative/liberal self-identification. The same has been shown in attitude research in that perspectives and context can influence a person's self-rating although their self-identification stays the same (Upshaw et al., 1970). The CGPOQ has the advantage that participants do not have to position themselves on a political spectrum but are asked to indicate their agreement with a statement on a percentage scale. In this way, we avoid the possibility that the ends of the scale could be misunderstood or interpreted differently by individuals who fill out the questionnaire. However, for the interpretation of the results it is still important to have adequate labels to refer to. Our choice for this was pragmatic. "Right" is a sensitive political term for a person's self-identification. Ames and Smith (2010) found that people who refuse to take an ideological position or are instable in their self-identification are latent rightist. In a recent study, we found that people's score in the CGPOQ were higher compared to the relative self-identification as "right" on a single item scale (Study 3). Taken together, the studies showed that self-identification as "right" does not seem to be as easily accessible as "left". Conservative and liberal are still the most common labels for a political ideology and probably offer the greatest content-related consensus among researchers. However, the label "liberal" is ambiguous for social versus economic ideologies in the political spectrum (Feldman & Johnston, 2014). The label "progressive" has not only been popular as self-identification for Democratic voters in the US, but is also increasingly used by the media (Kurtzleben, 2021).

Thus, we chose conservative and progressive as the labels for the endpoints of our scale because of their relatively unambiguous meaning.

The Contemporary German Political Orientation Questionnaire fills a gap in research on political orientation in the German-speaking world: It provides a solid alternative to existing measures of political orientation. Due to its cultural specificity, the CGPOQ can make more precise assessments of the political orientation of a sample than single item measures. As such, it provides a promising tool for future psychological and social studies where participants' political orientation might be of interest. More broadly, this questionnaire political orientation could even be used to reflect the current political climate of Germany.

General Discussion

In everyday life, we are constant observers of moral situations. We witness how people cut in line, carelessly pass by people in need and lie to gain an advantage. But we also see people going out of their way to help those who need it, donating money to good causes and standing up for what is right. When we assess these people and their behavior, on what do we base our judgments? What factors about the other person, ourselves, and the content of the observed situation play a role in the judgment process? The aim of the present thesis was to investigate moral judgments of such everyday situations, while considering relevant personality characteristics of the judge and the judged person. To this end, we used everyday moral scenarios that showed parallels to actual current events and used behavioral and neuroscientific methods.

Combining the results of all five studies that were compiled in this thesis, there are three main implications for the future of moral research. First, research on morality should consider everyday moral behavior that shows parallels to real life. This thesis has gone beyond previous research by developing and validating a set of realistic moral scenarios that were used to answer the current research questions. It can be used to answer future questions on moral judgments and their underlying processes. Second, moral judgments rely on an interplay of intuitive and rational processes that revolve around people. In neural and behavioral responses, the moral valence (i.e., negative, positive, neutral) of the observed behavior influenced neural and behavioral responses towards a moral agent. Third, person-specific characteristics (i.e., political orientation, empathy, fear, gender of the judge as well as gender of the judged person) need to be considered in studies of morality as they can alter the perception and judgment of people. A particular focus within this thesis was on differences in moral judgements depending on a person's political orientation. It was found that political orientation does not necessarily affect moral judgments on the behavioral level but that there is a different activation pattern in the

neural processes for conservatives compared to progressives (Study 3). Since all considered person characteristics were found to impact moral judgments to a certain extent, the studies of this thesis underline the importance of a holistic perspective that considers different person characteristics of the involved people.

The interplay of intuitions and reason in the judgment of moral agents

Recent theoretical approaches situated emotions in the focus of moral judgments (e.g., Gray & Wegner, 2011; Greene et al., 2001; Haidt, 2001; Schein & Gray, 2018) and have been supported by numerous studies (C. D. Cameron et al., 2017; Cannon et al., 2011; Cowell & Decety, 2015; F. Cui et al., 2016; Decety & Cacioppo, 2012; Decety & Yoder, 2016; Sarlo et al., 2012; Singer, Kiebel, et al., 2004; Van Berkum et al., 2009). However, the divide over reason and emotion has become stiffened through two opposing claims that only reason or emotion can be the driving force behind moral judgments (Helion & Pizarro, 2015). A combination of rational and emotional processes is much more likely. An emotional reaction can signal salience and might precede a deliberate judgment (Decety & Cacioppo, 2012). However, a normative understanding of right and wrong is necessary to evoke these fast and intuitive processes, or in other words, intuitions can only be evoked if they rely on an epistemic moral belief (Kahane, 2016). The results of two studies in this thesis (Study 2 and 3) provide further support on the assumption of a more complex interplay of intuitive and rational processes in moral judgments. It was found that a person's action matters for the judgment of their behavior (Study 2), the judgment of their likeability (Study 3), and the neural responses towards them (Study 3). The studies in this thesis expand previous research by showing that the influence of emotion can not only observed in serious moral transgressions but also in everyday positive and negative moral behavior. While they cannot provide any clarity on how the different processes interact, the results speak in favor of an interplay of emotional and rational processes.

Person dependent differences in moral judgments

Moral judgements never occur in isolation. Due to the prior experience and various biases that humans have characteristics and attributes of the involved people need to be considered (Hester & Gray, 2020). These influences are dependent on the identities and characteristics of the judge as well as the person who is being judged. In the studies of this thesis, several important influences were considered, namely political orientation, empathy, gender of the judge, as well as gender of the judged individuals. In the following, the findings for the influence of these person characteristics in moral judgments will be discussed in more detail.

Political Orientation

Relationships between political orientation and moral judgments have been reported in a number of studies (e.g., Graham et al., 2009; Hannikainen et al., 2017; Lane & Sulikowski, 2017; Piazza & Sousa, 2014). Their results indicate that conservatives moralize a broader range of actions (Graham et al., 2009; Piazza & Sousa, 2014) and that they show a greater emotional involvement compared to progressives (Hannikainen et al., 2017; Lane & Sulikowski, 2017). The results of our studies indicate that political orientation primarily affects the underlying processes of moral judgments (Study 3). These results are in line with research that found that conservatives and progressives exhibit differences in their affective dispositions and processing of moral information (see also Tritt et al., 2016; Weinmann et al., 2017). However, we did not find any indication that these differences are also reflected in different evaluation of the people who act in a moral or immoral way (i.e., the explicit judgments, Study 2 and 3). Rather, in explicit behavior ratings conservatives and progressives only differed in the rating of neutral behavior, with conservatives rating neutral behavior as more helpful compared to progressives. For likeability ratings, no difference could be observed in either moral valence category. A reason for why we did not find any differences in the judgments based on political orientation

might have been the underlying issues of the scenarios that were used. In the validation study of the scenarios (Study 1), one aim was to confirm that the created scenario set relies on the intended different underlying moral foundations based on MFT. However, most scenarios were categorized as scenarios that relate to the dimensions of care and fairness. Care and fairness have previously been considered relevant for both conservatives and progressives, but some research suggests that progressives respond even more strongly to violations of these foundations compared to conservatives (Graham et al., 2009). In line with this reasoning, the scenario set that was used in the studies of the present thesis has slightly favored progressive participants. Issues that might be especially relevant for conservatives were not included in the scenario set.

What should be emphasized is that while MFT is a popular theoretical basis for much research on the bipartisan divide in moral judgments, it has also received substantial criticism. It has been criticized for neglecting important aspects (Miles & Vaisey, 2015), for its stability across time (Smith et al., 2016), and for the cluster of the foundations in general (Gray & Keeney, 2015a; Kugler et al., 2014; Sinn & Hayes, 2017; Suhler & Churchland, 2011). Therefore, MFT should not be used as the sole basis for explaining the differences between conservatives and progressives in moral judgments.

To investigate the connection between politics and morality, a good measurement of political orientation is indispensable. For a German-speaking sample, the CGPOQ (Study 5) is not only a good tool to measure political orientation but can also be used to assess the extremity of a political orientation. The extremity of a political orientation has recently been found to be an important factor for moral reasoning (e.g., Alizadeh et al., 2019; Zmigrod et al., 2019). For instance, using trolley dilemmas it was found that cognitive rigidity is related to extremist attitudes (Zmigrod et al., 2019). Apart from the moral domain, it has been found that a more extreme political ideology, both for conservatives and progressives can lead to higher belief

superiority (Toner et al., 2013). Apart from the political orientation and extremity, the CGPOQ can be used to gain a more detailed understanding of an individual's political belief by analyzing the three underlying factors of the questionnaire separately. Thus, it provides an important resource for the future of research of the connection between political opinion and morality.

Empathy

Empathy is another trait that was investigated in its relation to moral judgments and political orientation in the studies of this thesis. First, it was found that more empathic female participants found harmful behavior more reprehensible compared to less empathic females (Study 2). In contrast, for male participants, empathy did not influence their moral judgments. This finding corroborates previous research that found that people in general, but especially females who score higher in empathy (or lower in psychopathy), are more concerned to prevent morally harmful behavior (e.g., Efferson et al., 2017). Second, several studies in this thesis (Study 2, 3, and 5) found that higher self-reported empathy scores correlated with a more progressive political orientation, which is in line with previous findings (e.g., Sirin et al., 2017; Wagaman & Segal, 2014).

However, some research suggests that the relationship between empathy and political orientation is more complex. For instance, one study found that instead of a general lack of empathy, conservatives express empathy towards smaller (ingroup) circles and liberals towards larger (and outgroup) circles (Waytz et al., 2016). Another study found that across several nations (Germany, Israel, United States), both progressives and conservatives were inclined to express more empathy towards their own ingroup (Hasson et al., 2018). What the results of these studies suggest is that empathy might result from motivated decision-making (C. D. Cameron et al., 2018). Motivation might drive people to approach or avoid empathizing with others through regulatory strategies (Jamil, 2014). In addition, contact and the relationship

between the involved people matters. For instance, it was found that good contact to previous perpetrators fosters forgiveness, which is additionally mediated by empathy (Cehajic et al., 2008). For future studies, the findings of this thesis highlight the importance of considering person characteristics of both, the potential emphasizer as well as the target of the empathy when studying the relationship between empathy and political orientation.

Gender

A third variable examined in this thesis is gender of the participants and the perceived gender of the moral agents. For gender of the participants, we found that female participants judged morally negative behavior as more harmful and morally positive behavior as more helpful compared to males (Study 2), however, the effects were small. Small differences for gender were also found in a meta-analysis that assessed whether females and males apply different modes underlying moral reasoning (Jaffee & Hyde, 2000). Females showed higher care-reasoning compared to males and males showed higher justice-reasoning compared to females. As the validation study of the moral scenarios showed, most of the items that we used in our study were categorized in the dimensions of care and fairness (Study 1). An explanation for the gender differences that were found in the studies of this thesis could therefore be rooted in the underlying moral basis or foundation that is violated or adhered to.

The reported gender differences should generally be treated with caution since contextual factors might have played an important role, which have previously been found as explanatory factors. For instance, removing the influence of gender roles diminished gender differences that were found in aggression and considering the gender equality in a nation diminished gender differences in mathematics performance and mate preferences (for a review, see Hyde, 2014).

The results of Study 3 emphasize that gender role expectations can play an important role in the moral domain. For the same scenarios, male moral agents were judged as less likeable

for their negative behavior compared to females. Apart from gender role expectations, this result illustrates that studies should not only consider person characteristics of the judges of a moral action but also of the people who are being judged. The fact that demographic characteristics can influence moral decisions was also demonstrated by the influential moral machine experiment (Awad et al., 2018). This experiment is a variation of the trolley dilemma with an autonomous car that is about to crash. While in most studies on moral dilemmas personal characteristics are neglected, in this (ongoing) experiment participants are informed about gender, age, social status, and fitness of the involved individuals. In over 40 million decisions in 233 countries, the researchers showed that for gender, for example, participants had a preference of saving females over males. The results of this study as well as our results pose the importance of considering biases and stereotypical attributions in moral decision-making and judgments. Future studies are needed to disentangle how gender biases but also, for instance, biases based on race, age, disability, or apparent social standing can alter moral judgments.

Since gender is a variable that has been considered in this work, recent approaches to a critical gender assessment should briefly be outlined. Treating gender as a binary variable is problematic for several reasons (see e.g., Cameron & Stinson, 2019; Fine et al., 2014). It reduces the spectrum of gender to an inadequate dimension of only two characteristics, thereby fails to represent the current understanding of gender, and can lead to gender misclassification. In our studies we did not perform an adequate gender assessment as we only gave three options to choose from (female, male, other). Open-ended questions regarding gender are not only more inclusive but also allow for a more fine-grained coverage of the construct. Especially when gender is at the center of a research project, the broader scope of gender should be included in its assessment as well as its treatment in the analysis. In acknowledging this, future research will not only be more accurate but also more inclusive.

Relatable settings by using everyday scenarios

A main aim of this thesis was to study moral judgments in contexts that are close to reality. To achieve this, a first step was to create and validate a large data base of moral scenarios that capture comparable positive, negative moral and neutral behavior (Study 1). The resulting data base is valuable because it is not only one of the few sets of German moral scenarios but it is also large and includes a multitude of moral behaviors. Apart from negative scenarios, which are common in moral research, it includes positive moral behavior and neutral behavior that can function as a baseline condition. The validated material of Study 1 can, for instance, be used to replicate established findings from research on moral judgments in terms of their external validity.

A limitation of this scenario set that also affects the closeness to reality is the reliance on text-based stimuli. In media research, insufficient character development can lead to so called "emotionally flat drama", which means that when little is known about the suffering parties, there will not be any affective reaction towards them (Zillmann & Knobloch, 2001). In the studies that focused on the reactions and judgments towards moral individuals (Study 2 and 3), we added faces and names to increase the sense of identification with the described moral individuals. Outside the moral domain, it has been found that descriptions of people that have personal relevance for oneself (e.g., one's partner or best friend) have led to increased amplitudes of the LPP (Bayer et al., 2017). In addition, it has been found that bibliographic knowledge about faces can alter their perception, even when they show a neutral expression (Suess et al., 2014). Well known real people have also been found to elicit a distinct neural and behavioral pattern in their moral judgments (Abraham et al., 2008). Future studies could adapt the designs that were used in Study 2 and 3 but insert faces and names of people that are either well known (e.g., Barack Obama or Greta Thunberg) or have a high personal relevance (e.g., one's partner or best friend) to increase the identification with the depicted moral individuals

and to gain a better understanding how moral evaluations are affected by personal relevance. The scenario set could also be used to design more complex video-based stimuli. Thereby, closeness to real life will not only be increased through the content of the stimuli but also through their more realistic presentation mode.

Another aim of the validation study of the moral scenario was to create a set that relies on all five moral foundations of MFT. However, against our assumption, the scenarios were mainly categorized in the foundation of care and fairness (Study 1). While this has implications for MFT as a theory, it also affects the understanding of moral behavior more general. Hofmann et al. (2014) found that in everyday occurrences, the majority of moral behavior that participants reported relied on care (50.6%), followed by fairness (13.9%). A set of moral scenarios that reflects behavior in the dimensions of care and fairness might therefore depict everyday situations better than scenarios that are equally based on all five foundations of MFT. Another issue that is especially prevalent in creating scenarios of both negative and positive moral behavior is that the grouping into the underlying foundation might not match for negative or positive behavior in the same situation. For instance, in television and film, heroes usually violate norms of authority and purity, whereas villains violate norms of care and group loyalty (Eden et al., 2015). A violation of some of the moral foundations might therefore actually be seen as positive behavior. Together, these findings question whether MFT is generally a suitable theory to explain everyday moral behavior beyond its application to differences in political orientation.

Overall, the set of scenarios that was created and validated in Study 1 is extensive and versatile. It describes intentional actions from a moral agent towards a moral patient, includes everyday moral behavior, and goes beyond transgressions by including morally positive, negative, and a neutral (baseline) versions of the same initial setting. Through these properties it fills a gap in moral research and provides a good basis for future studies on morality for both

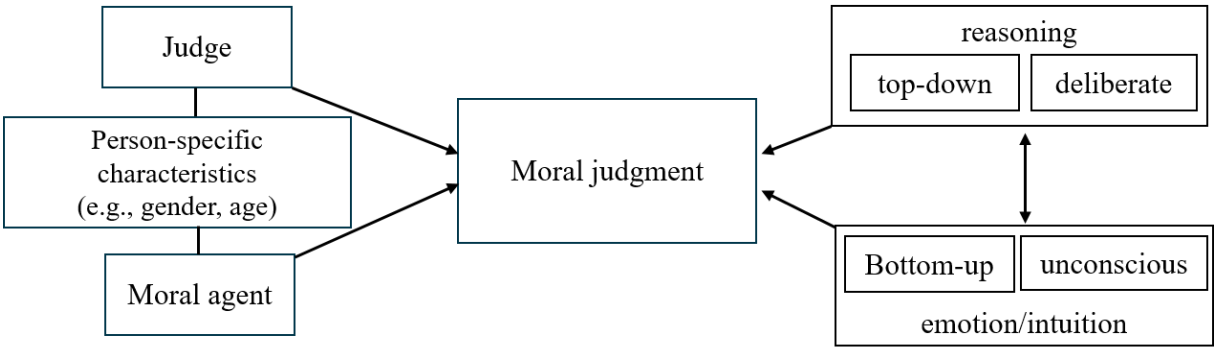
replicating established findings that lack external validity and investigating novel research questions.

Adaptation of the interactive model of moral judgments

The *interactive model of moral judgments* was created in an attempt to combine current models of morality, which rely on the assumption that moral judgments are comprised of emotional and cognitive processes. The newly developed model does not assume that emotion and cognition compete but that these two processes interact in cooperation. Drawn from the results of this thesis, there are some implications for the current model, which pave the way for the study of moral judgments in general. First and foremost, the most popular models in moral psychology did not take person characteristics into account. However, as has been pointed out theoretically (Hester & Gray, 2020) and corroborated by the results of the studies in this thesis (Study 2, 3, and 4), person specifics might be just as important as the moral behavior itself. Person characteristics play a role on the level of the observing individual but also on the level of the (inter)acting individual(s). To account for this, the *interactive model of moral judgments* was slightly adapted to include the level of the acting individual (moral agent) and the moral judge, who are central to the judgment process (Figure 18). Theoretically, the model could additionally be extended by person characteristics of the moral patient and thus have a greater parallel to the dimensional moral model (Gray & Wegner, 2011) and the theory of dyadic morality (Schein & Gray, 2018). Due to a lack of information and a different focus of my thesis, I can only make predictions about their involvement in the judgment process. Therefore, their influence and potential connections to other components in the model are not included for the time being.

Figure 18

The adapted interactive model of moral judgment



Note. The interactive model of moral judgment assumes that intuition and reasoning influence moral judgment and interact with each other. In addition, person-specific characteristics of the judge and moral agent influence the judgment. Arrows indicate the influence from one module on another module.

The model follows a similar rationale as described in the General Introduction. Moral judgments are influenced by intuitive and rational processes, which also interact with each other. The judgement is additionally influenced by person-specific characteristics (e.g., gender) of the judge, as well as the moral agent. The interactive model of moral judgments was developed as a theoretical basis for the development of the studies in this thesis. Its person-centered approach and the cooperative interaction of emotions and rationality distinguish it from other current models. Thus, it may be particularly valuable for future studies on moral judgments. However, the studies of this thesis were not laid out to do a model test. Further studies are needed to check whether the assumptions made in the interactive model of moral judgments can be empirically supported.

Limitations and Outlook

In this thesis, a number of studies were conducted with the aim of investigating moral judgments in everyday situations. While some questions have been answered, new ones have arisen. In the following, several points that have come up while conducting the experiments

will be addressed, as they might prove of importance for researchers conducting work in this area. First, I will weigh the pro and cons of studying controlled but simplified moral behavior versus realistic but complex moral behavior. Secondly, the role of moral patients in the judgment process will be discussed.

The study of complex moral behavior

Humans are multifaceted and complex. It is unlikely that any human being will be able to live up to their best standard in any instance and thereby to the absolute morally good (De Beauvoir, 1948). In studies on morality, including the ones in this thesis, judgments are mostly based on observing or reading a single behavior attached to a person (e.g., Baum et al., 2018; Delgado et al., 2005; Leuthold et al., 2014). While a single observation can be informative enough to alter a judgment of a person (e.g., Todorov et al., 2007), it cannot account for a comprehensive character development. In addition, while this first impression can guide judgments, a second observed situation can also alter this first impression (see e.g., Brambilla et al., 2019). To do justice to the claim of assessing moral character (Hester & Gray, 2020), judgments should not be based on individual actions. Future research would benefit from an investigation of several (moral) behaviors of the same individual to gain a better understanding of whether morally negative behavior is weighted more or less than positive behavior and how behavior is weighted in comparison to person characteristics.

Although several studies have moved to using less extreme descriptions of moral behavior as opposed to trolley dilemmas (e.g., Baum et al., 2018; Leuthold et al., 2014), they are still unambiguous in their morality (e.g., harming someone). In such a situation, there is no reason to deliberate because there are no competing moral principles (Helion & Pizarro, 2015). In studies, this might lead participants to not properly differentiate between different moral behaviors (i.e., not using the whole spectrum of a judgment scale). Including extreme scenarios as anchors for the ends of the scale could be one way to avoid a consistent and uniform

judgment. For morally ambiguous characters, another important factor plays the motivation for their actions. It has been found that altruistic motivations and positive outcomes can lead to more favorable perceptions of a character's attributes, greater character liking, and more justification of the character's actions (Krakowiak & Tsay-Vogel, 2013). Thus, highlighting the intention of a behavior could be a way to include more ambiguous moral actions in the research of moral judgments. To conclude, studying complex characters and behaviors would take laboratory studies one step closer to studying real life moral behavior. However, at the same time it will most likely increase the complexity of study designs.

The role of moral patients in the judgment process

Research suggests that there are differences in the perceived deservingness of good or bad fortunes for people based on the affective dispositions towards them. For instance, well known people who are generally liked because of their exemplar behavior receive greater sympathy when bad things are happening to them (Zillmann et al., 1998). Similarly, in the moral machine experiment (Awad et al., 2018), the authors observed variations in who to save based on the person characteristics of the involved people. They discovered global preferences (e.g., a large preference to save young compared to older individuals) but also showed that there are cultural clusters, with people exhibiting different moral preferences based on cultural and economic variations between countries. While we included moral patients in the studies of this thesis (Study 2 and 3), we did not ask for judgments towards moral patients. In addition, it was beyond the scope of this thesis to study how the judgments might have differed based on the patients' person characteristics. The processes behind moral patients' judgments, both as recipients of morally positive and negative actions, opens exciting new research questions for the future. The studies of this thesis provide an optimal basis for such research designs.

Conclusion

Studying moral judgments is a challenging endeavor due to their social embeddedness, which is difficult to translate into studies. When real-life moral judgments are used in laboratory studies it often comes at the expense of plausibility and external validity. In the studies of this thesis, previous shortcomings have been overcome by developing and using a large set of everyday moral scenarios and by using a person-centered approach to morality. To create an even greater proximity to real life moral behavior, an additional study was carried out that assessed moral judgements within the current corona pandemic. All studies of this thesis were based on the theoretical framework of the newly developed interactive model of moral judgments, which was revised in accordance with the findings of this thesis.

This thesis provides evidence that moral intuitions and person specific characteristics play a role in everyday moral judgments. In three studies, it could be shown that neural responses towards and explicit judgments of moral behavior as well as the people who commit it vary in dependence of the characteristics of the moral information (i.e., its valence) and person characteristics of the judge and the judged (i.e., their political orientation, gender, empathy, and fear). In addition, the extraordinary situation of the corona pandemic allowed the collection of cross-cultural and longitudinal data, which provided valuable insights in how moral judgments depend on temporal and local proximity to an event.

Apart from the empirical findings, this thesis provides a large and validated data base of moral scenarios, which paves the way for impactful future studies on morality. In addition, the newly developed and validated CGPOQ presents an excellent tool to assess political orientation in a German population for studies on morality and beyond. Overall, the studies of this thesis go beyond past research by examining moral behavior close to reality, which allows for a more accurate inference of the processes and factors influencing moral judgments.

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Appendix A

Table A1

Full list of moral scenarios for a male (Jan) moral agent and female (Anna) patient

Nr	positiv	negativ	neutral	foundation
1	Anna ist seit einer Hüftoperation auf Krücken angewiesen. Auf dem Weg zum Supermarkt muss sie durch die volle Innenstadt laufen. Jan, der es eilig hat, tritt von hinten gegen Annas Krücke, die daraufhin zu Boden fällt und Anna aus dem Gleichgewicht bringt. Jan hebt sofort die Krücke auf und entschuldigt sich bei Anna. Er begleitet sie bis zum zu seinem Auto, um sie den restlichen Weg zum Supermarkt zu fahren, wartet dort und fährt sie danach nach Hause.	Anna ist seit einer Hüftoperation auf Krücken angewiesen. Auf dem Weg zum Supermarkt muss sie durch die volle Innenstadt laufen. Jan, der es eilig hat, tritt von hinten gegen Annas Krücke, die daraufhin zu Boden fällt und Anna aus dem Gleichgewicht bringt. Jan beschwert sich lauthals über Anna, die in der vollen Innenstadt den Weg versperrt und tritt im Vorbeigehen die Krücke weg.	Anna ist seit einer Hüftoperation auf Krücke angewiesen. Auf dem Weg zum Supermarkt muss sie durch die volle Innenstadt laufen. Jan, der es eilig hat, tritt von hinten gegen Anna Krücke, die daraufhin zu Boden fällt und Anna aus dem Gleichgewicht bringt. Jan hebt die Krücke schnell auf und gibt sie Anna zurück.	care
2	Anna sitzt an den letzten Zügen ihrer Abschlussarbeit, als der Computer plötzlich abstürzt und sich nicht wieder anschalten lässt. Jan hilft ihr die gesamte Nacht, die Dateien zu rekonstruieren und die Formatierungen des Dokuments zu überarbeiten, obwohl er am nächsten morgen früh arbeiten muss.	Anna sitzt an den letzten Zügen ihrer Abschlussarbeit, als der Computer plötzlich abstürzt und sich nicht wieder anschalten lässt. Jan hilft ihr nicht, die Dateien wieder zu rekonstruieren, obwohl er als Informatiker das Wissen und die Zeit hätte zu helfen.	Anna sitzt an den letzten Zügen ihrer Abschlussarbeit, als der Computer plötzlich abstürzt und sich nicht wieder anschalten lässt. Jan empfiehlt Anna ein Geschäft, das Computer repariert, um ihre Dateien zu retten.	care
3	Anna ist ziemlich krank, soll aber eigentlich einen Vortrag in der Vorstandssitzung zu neuen Marketinganalysen halten. Jan ist Annas Kollege. Er bietet Anna an, den Vortrag kurzfristig zu übernehmen und arbeitet dafür die gesamte Nacht vor der Präsentation.	Anna ist ziemlich krank, soll aber eigentlich einen Vortrag in der Vorstandssitzung zu neuen Marketinganalysen halten. Jan ist Annas Kollege. Er ignoriert Annas Notlage und bietet ihr keine Hilfe an, obwohl er eine fertige Version des Vortrages hat, den er bei einem Kunden gehalten hat.	Anna ist ziemlich krank, soll aber eigentlich einen Vortrag in der Vorstandssitzung zu neuen Marketinganalysen halten. Jan ist Annas Kollege. Jan bietet Anna an, den Vortrag zu übernehmen, muss diesen aber nicht vorbereiten, weil er zum selben Thema vor ein paar Wochen einen Vortrag gehalten hat.	care
4	Anna wurde von einer schlimmen Grippe erwischt und kann ihr Bett nicht verlassen. Ihr Freund Jan, mit dem sie zusammenwohnt, kümmert sich um sie und besorgt ihr Medikamente aus	Anna wurde von einer schlimmen Grippe erwischt und kann ihr Bett nicht verlassen. Ihr Freund Jan, mit dem sie zusammenwohnt, kümmert sich nicht um sie, obwohl	Anna wurde von einer schlimmen Grippe erwischt und kann ihr Bett nicht verlassen. Ihr Freund Jan, mit dem sie zusammenwohnt, kocht ihr einen Tee.	care

APPENDIX A

Nr	positiv	negativ	neutral	foundation
	der Apotheke, obwohl er sehr viel zu tun und kaum Zeit hat.	er Urlaub und somit Zeit hätte, sich um sie zu kümmern.		
5	Jan sieht Anna eine Ampel überqueren, die gerade auf Rot umspringt. Jan springt auf die Straße und zieht Anna im letzten Moment auf den Gehweg, als ein Auto angerast kommt.	Jan sieht Anna eine Ampel überqueren, die gerade auf Rot umspringt. Jan tut nichts, um Anna zu warnen oder zu helfen, als ein Auto angerast kommt und Anna anfährt. Er findet, dass Menschen bestraft gehören, die sich nicht an die Regeln halten.	Jan sieht Anna eine Ampel überqueren, die gerade auf Rot umspringt. Als ein Auto angerast kommt, ruft Jan laut, sodass Anna im letzten Moment stehen bleibt und ihr nichts passiert.	care
6	Jan rutscht beinahe an einer glatten Stelle auf dem Bürgersteig vor dem Haus aus. Als Anna das Haus verlassen möchte warnt Jan Anna, dass sie wegen der Glätte aufpassen müsse. Er begleitet sie, um ihr zu helfen, da Anna nach einer Knie-OP noch auf Krücken angewiesen ist.	Jan rutscht beinahe an einer glatten Stelle auf dem Bürgersteig vor dem Haus aus. Wieder zurück im Haus fragt Anna, ob es draußen glatt sei. Jan verneint dies, wonach Anna an der Stelle ausrutscht und sich ein Bein bricht.	Jan rutscht beinahe an einer glatten Stelle auf dem Bürgersteig vor dem Haus aus. Wieder zurück im Haus fragt Anna, ob es draußen glatt sei, was Jan bestätigt.	care
7	Anna erlebt kurz vor Weihnachten einen Todesfall in der Familie. Ihr guter Freund Jan hat geplant über die Feiertage mit gemeinsamen Freunden in sein Ferienhaus zu fahren. Als Jan von Annas Verlust erfährt, sagt er seinen bereits geplanten Winterurlaub ab, damit Anna die Feiertage nicht alleine verbringen muss.	Anna erlebt kurz vor Weihnachten einen Todesfall in der Familie. Ihr guter Freund Jan hat geplant über die Feiertage mit gemeinsamen Freunden in sein Ferienhaus zu fahren. Obwohl noch ein Schlafzimmer frei wäre lädt er Anna nicht mit ein, sodass sie über die Feiertage alleine ist.	Anna erlebt kurz vor Weihnachten einen Todesfall in der Familie. Ihr guter Freund Jan hat geplant über die Feiertage mit gemeinsamen Freunden in sein Ferienhaus zu fahren. Er bietet Anna an mitzukommen, falls sie die Anfahrt selbst organisiert und die Mehrkosten trägt.	care
8	Als Jan über den See paddelt, hört er plötzlich einen Hilfeschrei von Anna, die im Wasser zu ertrinken droht. Schnell paddelt er in die Richtung des Schreies und entdeckt Anna, die ins Wasser gefallen ist. Er streckt ihr das Paddel hin, sodass sie sich daran zum Boot ziehen kann.	Als Jan über den See paddelt, hört er plötzlich einen Hilfeschrei von Anna, die im Wasser zu ertrinken droht. Jan paddelt weiter, ohne zu schauen, ob jemand Hilfe brauchen könnte.	Als Jan über den See paddelt, hört er plötzlich einen Hilfeschrei von Anna, die im Wasser zu ertrinken droht. Er blickt sich um und sieht, dass Anna ins Wasser gefallen ist und ruft, ob sie Hilfe benötigt. Als er sieht, dass ihr bereits von ihrem Partner wieder ins Boot geholfen wird, paddelt er weiter.	care
9	Jan will gerade in die Bahn einsteigen, als er sieht, wie Anna damit kämpft den Kinderwagen in die Bahn zu heben. Er eilt ihr bei und hilft ihr, den Kinderwagen mit dem schlafenden Baby	Jan will gerade in die Bahn einsteigen, als er sieht, wie Anna damit kämpft den Kinderwagen in die Bahn zu heben. Es ist sonst niemand da, der Anna helfen könnte. Jan drängelt	Jan will gerade in die Bahn einsteigen, als er sieht, wie Anna damit kämpft den Kinderwagen in die Bahn zu heben. Gerade als er seine Hilfe anbietet, sieht er, wie schon ein anderer	care

Nr	positiv	negativ	neutral	foundation
	unversehrt in die Bahn zu heben.	sich an Anna vorbei, ohne ihr mit dem Kinderwagen zu helfen.	Mann Anna zu Hilfe kommt und steigt deshalb ohne zu Helfen in die Bahn.	
10	Anna steigt in den Bus ein, in dem Jan sitzt. Wegen ihres gebrochenen Beines bittet sie Jan aufzustehen und den Sitzplatz für sie freizugeben. Obwohl Jan selber eine leichte Fußverletzung hat steht er auf und steht den Rest des Weges.	Anna steigt in den Bus ein, in dem Jan sitzt. Wegen ihres gebrochenen Beines bittet sie Jan aufzustehen und den Sitzplatz für sie freizugeben. Jan weigert sich und bleibt auf seinem Platz sitzen.	Anna steigt in den Bus ein, in dem Jan sitzt. Wegen ihres gebrochenen Beines bittet sie Jan aufzustehen und den Sitzplatz für sie freizugeben. Da Jan selber eine Fußverletzung hat und noch andere Plätze im Bus weiter hinten frei sind bleibt Jan sitzen, erklärt Anna die Umstände, worauf Anna sich auf einen anderen Platz setzt.	care
11	Jan ist am Bahnhof und rennt zum Zug. Dabei rempelt er Anna an, die ihm plötzlich in den Weg läuft und darauf hinfällt. Jan bleibt stehen, hilft Anna auf und entschuldigt sich vielmals und nimmt dafür in Kauf, dass er seinen Zug verpasst.	Jan ist am Bahnhof und rennt zum Zug. Dabei rempelt er Anna an, die ihm plötzlich in den Weg läuft und darauf hinfällt. Jan rennt weiter, ohne sich zu entschuldigen, um seinen Zug noch zu bekommen und schimpft dabei lauthals über Anna.	Jan ist am Bahnhof und rennt zum Zug. Dabei rempelt er aus Versehen Anna an, die ihm plötzlich in den Weg läuft und darauf hinfällt.	care
12	Anna hat einen schweren Autounfall auf der Autobahn. Jan sieht den Unfall, hält an, ruft den Rettungswagen und leistet Erste Hilfe.	Anna hat einen schweren Autounfall auf der Autobahn. Jan sieht den Unfall, fährt aber unbekümmert an Anna vorbei ohne anzuhalten.	Anna hat einen schweren Autounfall auf der Autobahn. Jan sieht den Unfall und hält an. Da ein Rettungswagen vor Ort ist und Anna schon geholfen wird, fährt Jan weiter.	care
13	Jan läuft die Straße entlang und sieht, wie Anna die vollen Einkaufstüten reißen und alles auf den Gehweg und die Straße purzelt. Obwohl Jan es sehr eilig hat hilft er Anna alles aufzusammeln.	Jan läuft die Straße entlang und sieht, wie Anna die vollen Einkaufstüten reißen und alles auf den Gehweg und die Straße purzelt. Jan geht einfach an Anna vorbei ohne zu helfen und tritt dabei noch extra die Kartoffeln weg, die auf dem Gehweg liegen.	Jan läuft die Straße entlang und sieht, wie Anna die vollen Einkaufstüten reißen und alles auf den Gehweg und die Straße purzelt. Jan bleibt stehen und bietet Anna an zu helfen. Aber da schon mehrere Personen dabei helfen die verstreuten Waren aufzusammeln, lehnt Anna dankend ab und Jan geht weiter.	care
14	Jan beobachtet, wie Anna mit ihrem vollen Tablett in der Mensa angerempelt wird und ihr ganzes Essen scheppernd auf den Boden fällt. Jan hilft Anna beim Aufsammeln und Saubermachen.	Jan beobachtet, wie Anna mit ihrem vollen Tablett in der Mensa angerempelt wird und ihr ganzes Essen scheppernd auf den Boden fällt. Jan hilft Anna nicht, lacht stattdessen und macht sich darüber lustig, wie tollpatschig Anna sei.	Jan beobachtet, wie Anna mit ihrem vollen Tablett in der Mensa angerempelt wird und ihr ganzes Essen scheppernd auf den Boden fällt. Jan bleibt kurz stehen und bietet seine Hilfe an, geht dann aber weiter, da ihr schon von mehreren Freunden geholfen wird.	care

APPENDIX A

Nr	positiv	negativ	neutral	foundation
15	Jan und Anna sind zur selben Zeit im Supermarkt um einzukaufen. Anna stößt versehentlich einen Turm von Konserven um. Jan, der eigentlich noch schnell zur Post musste, hilft sofort, den Turm wieder aufzubauen.	Jan und Anna sind zur selben Zeit im Supermarkt um einzukaufen. Anna stößt versehentlich einen Turm von Konserven um. Jan geht einfach an Anna vorbei, ohne zu helfen und tritt dabei noch eine Konserve aus dem Weg.	Jan und Anna sind zur selben Zeit im Supermarkt um einzukaufen. Anna stößt versehentlich einen Turm von Konserven um. Jan sucht für Anna eine Verkäuferin, die sich um das Aufräumen der Konserven kümmert.	care
16	Anna trägt einen Stapel Bücher durch das Treppenhaus der Bibliothek. Als ihr alle Bücher herunterfallen, eilt Jan herbei und hilft ihr beim Aufheben und Tragen.	Anna trägt einen Stapel Bücher durch das Treppenhaus der Bibliothek. Als ihr alle Bücher herunterfallen, nimmt Jan eines davon, reißt eine Seite heraus und wirft es auf den Boden.	Anna trägt einen Stapel Bücher durch das Treppenhaus der Bibliothek. Als ihr alle Bücher herunterfallen, kommt Jan herbei, hilft Anna jedoch nicht mehr, da sie selber schon alle Bücher wieder aufgesammelt hat.	care
17	Anna bleibt lange auf einer Party von Freunden. Auf dem Heimweg wird sie von einem maskierten Mann angegriffen. Jan sieht das zufällig und greift sofort ein.	Anna bleibt lange auf einer Party von Freunden. Auf dem Heimweg wird sie von einem maskierten Mann angegriffen. Jan sieht das zufällig und sieht aus einem Versteck zu, wie Anna brutal verprügelt wird, ohne einzugreifen oder Hilfe zu holen.	Anna bleibt lange auf einer Party von Freunden. Auf dem Heimweg wird sie von einem maskierten Mann angegriffen. Jan beobachtet das zufällig und kommt zur Hilfe, sieht aber, dass Anna sich selber erfolgreich wehrt und den Angreifer überwältigt.	care
18	Anna ist bereits im Kindesalter schwer an Diabetes erkrankt und muss seither zur Dialyse. Mittlerweile ist ihre einzige Überlebenschance eine Nierentransplantation. Jan spendet ohne zu zögern eine Niere für Anna.	Anna ist bereits im Kindesalter schwer an Diabetes erkrankt und muss seither zur Dialyse. Mittlerweile ist ihre einzige Überlebenschance eine Nierentransplantation. Obwohl Jan als perfekter Spender für Anna identifiziert wurde, verweigert er eine Spende aufgrund ihrer Sexualität.	Anna ist bereits im Kindesalter schwer an Diabetes erkrankt und muss seither zur Dialyse. Mittlerweile ist ihre einzige Überlebenschance eine Nierentransplantation. Jan spendet Anna keine Niere, weil er vom Arzt aus gesundheitlichen Gründen als ungeeignet befunden wurde.	care
19	Jan und Anna sind gemeinsam auf einer beliebten Party im besten Club der Stadt, für die sie Stunden lang anstehen mussten. Anna ist sehr betrunken und möchte nach Hause. Eigentlich möchte Jan noch auf der Party bleiben. Dennoch fährt er Anna nach Hause.	Jan und Anna sind gemeinsam auf einer beliebten Party im besten Club der Stadt, für die sie Stunden lang anstehen mussten. Anna ist sehr betrunken und möchte nach Hause. Da Jan noch bleiben möchte ignoriert er Anna.	Jan und Anna sind gemeinsam auf einer beliebten Party im besten Club der Stadt, für die sie Stunden lang anstehen mussten. Anna ist sehr betrunken. Da Jan gerne noch ein wenig bleiben würde sorgt er dafür, dass Anna von einem gemeinsamen Freund mitgenommen wird, der schon früher die Party verlässt.	care
20	Jan sitzt im Bus, in den Anna zusteigt. Anna kann wegen einer Beinamputation nicht	Jan sitzt im Bus, in den Anna zusteigt. Anna kann wegen einer	Jan sitzt im Bus, in den Anna zusteigt. Anna kann wegen einer	care

Nr	positiv	negativ	neutral	foundation
	mehr gut stehen. Da sonst alle Plätze besetzt sind, steht Jan sofort auf, bietet Anna seinen Platz an und steht den Rest der Fahrt.	Beinamputation nicht mehr gut stehen. Obwohl sonst alle Plätze besetzt sind bleibt Jan unbekümmert sitzen und bietet Anna nicht seinen Platz an.	Beinamputation nicht mehr gut stehen. Jan nimmt die Tasche vom Sitz neben ihm, damit Anna sich setzen kann.	
21	Es ist Sommer und sehr warm. Jan und Anna haben sich jeweils eine Kugel Eis gekauft und sitzen nun gemeinsam auf einer Bank, um das Eis zu genießen. Als Anna sagt, dass ihr ihr Eis nicht schmeckt, bietet Jan ihr an, das Eis zu tauschen, obwohl er Annas Eis auch nicht sonderlich mag.	Es ist Sommer und sehr warm. Jan und Anna haben sich jeweils eine Kugel Eis gekauft und sitzen nun gemeinsam auf einer Bank, um das Eis zu genießen. Als Anna sagt, dass die Verkäuferin ihr versehentlich die falsche Sorte gegeben hat, auf die sie allergisch reagiert, lacht Jan sie aus und sagt, dass sein Eis sehr lecker sei.	Es ist Sommer und sehr warm. Jan und Anna haben sich jeweils eine Kugel Eis gekauft und sitzen nun gemeinsam auf einer Bank, um das Eis zu genießen. Als Anna sagt, dass ihr ihr Eis nicht schmeckt, bietet Jan an, das Eis zu tauschen, da er ihre Sorte ebenfalls sehr gerne mag.	care
22	Anna verletzt sich beim Kochen mit einem Messer und hat eine tiefe Schnittwunde, die stark blutet. Sie bittet Jan, sie ins Krankenhaus zu fahren. Obwohl Jan einen wichtigen Termin hat, fährt er Anna ins Krankenhaus und verschiebt den Termin.	Anna verletzt sich beim Kochen mit einem Messer und hat eine tiefe Schnittwunde, die stark blutet. Sie bittet Jan, sie ins Krankenhaus zu fahren. Jan ignoriert die Bitte und trinkt weiter Wein.	Anna verletzt sich beim Kochen mit einem Messer und hat eine tiefe Schnittwunde, die stark blutet. Sie bittet Jan, sie ins Krankenhaus zu fahren. Da Jan schon Wein getrunken hat, kann er Anna nicht mehr fahren, ruft ihr dafür aber ein Taxi.	care
23	Jan steht im Fahrstuhl und sieht, dass Anna herangeeilt kommt, um den Fahrstuhl noch zu erwischen. Jan hält die Türen des Fahrstuhls auf.	Jan steht im Fahrstuhl und sieht, dass Anna herangeeilt kommt, um den Fahrstuhl noch zu erwischen. Jan schließt mit Absicht die Tür des Fahrstuhls, damit Anna den Fahrstuhl nicht mehr rechtzeitig erreicht.	Jan steht im Fahrstuhl und sieht, dass Anna herangeeilt kommt, um den Fahrstuhl noch zu erwischen. Jan drückt den Türöffner-Knopf, aber es ist schon zu spät und die Türen schließen sich, bevor Anna einsteigen kann.	care
24	Jan sieht, wie Anna mit Krücken und schwerem Gepäck in den Zug steigen möchte. Jan eilt Anna zur Hilfe und packt mit an.	Jan sieht, wie Anna mit Krücken und schwerem Gepäck in den Zug steigen möchte. Jan drängelt sich einfach in den Zug an Anna vorbei, ohne ihr mit dem Gepäck zu helfen.	Jan sieht, wie Anna mit Krücken und schwerem Gepäck in den Zug steigen möchte. Jan drückt den Knopf für Anna, damit sich die Tür öffnet.	care
25	Anna steht im strömenden Regen. Jan sieht das und schenkt Anna seinen eigenen Regenschirm, obwohl er dadurch selbst ohne Schutz nach Hause laufen muss.	Anna steht im strömenden Regen. Jan sieht das und bietet Anna nicht an unter seinen Schirm zu kommen, obwohl er zusätzlich zum Schirm auch noch eine Regenjacke trägt.	Anna steht im strömenden Regen. Jan sieht das und bietet Anna seinen zweiten Regenschirm an, den er nicht braucht, da er eine Kapuze und einen anderen Schirm hat.	care
26	Jan sieht, wie Anna mit einem schweren Bücherstapel durch die Tür gehen möchte. Jan eilt herbei,	Jan sieht, wie Anna mit einem schweren Bücherstapel durch die Tür gehen möchte. Jan geht	Jan sieht, wie Anna mit einem schweren Bücherstapel durch die Tür gehen möchte. Beim	care

APPENDIX A

Nr	positiv	negativ	neutral	foundation
	um Anna die Tür aufzuhalten und hilft außerdem den Rest des Stapels Bücher in ein Büro zwei Stockwerke weiter oben zu tagen.	einfach an Anna vorbei, ohne ihr die Tür aufzuhalten.	Vorbeigehen wünscht Jan Anna einen schönen Tag.	
27	Anna hat Schnupfen. Jan sieht, wie Anna verzweifelt ein Taschentuch sucht. Jan schenkt Anna darauf seine Packung Taschentücher.	Anna hat Schnupfen. Jan sieht, wie Anna verzweifelt ein Taschentuch sucht. Obwohl Jan Taschentücher in seiner Tasche hat, bietet er diese Anna nicht an.	Anna hat Schnupfen. Jan sieht, wie Anna verzweifelt ein Taschentuch sucht. Jan sucht darauf in seiner Tasche nach Taschentüchern, um sie Anna anzubieten, findet aber keine.	care
28	Anna hatte eine schwere Lungenentzündung und kommt nun geschwächt aus dem Krankenhaus nach Hause. Dort hat Jan ihr bereits ein heißes Entspannungsbad eingelassen.	Anna hatte eine schwere Lungenentzündung und kommt nun geschwächt aus dem Krankenhaus nach Hause. Als sie duschen will stellt Jan das warme Wasser ab.	Anna hatte eine schwere Lungenentzündung und kommt nun geschwächt aus dem Krankenhaus. Zu Hause angekommen schlägt Jan ihr vor, warm zu duschen.	care
29	Anna steht auf einem Stuhl und versucht vergeblich in der Küche an das oberste Regalfach zu kommen, in dem die Backzutaten gelagert sind. Jan ist größer als Anna und holt ihr die Backzutaten vom Regal, obwohl der Stuhl, auf dem er steht, sehr wackelig ist.	Anna steht auf einem Stuhl, um in der Küche an das oberste Regalfach zu kommen, in dem die Backzutaten gelagert sind. Jan zieht ihr den Stuhl unter den Füßen weg, sodass Anna auf den Steinboden knallt.	Anna steht auf einem Stuhl, um in der Küche an das oberste Regalfach zu kommen, in dem die Backzutaten gelagert sind. Jan schaut dabei zu.	care
30	Anna sitzt im Rollstuhl, der sich beim Überqueren der Zuggleise in einer Gleiskuhle verfangen hat. Jan sieht, dass aus der Ferne ein Zug anfährt. Er rennt zu Anna auf die Gleise und bringt sie in Sicherheit.	Anna sitzt im Rollstuhl, der sich beim Überqueren der Zuggleise in einer Gleiskuhle verfangen hat. Jan sieht, dass aus der Ferne ein Zug anfährt. Obwohl genügend Zeit wäre, bringt Jan Anna nicht in Sicherheit, sondern schaut aus der Entfernung zu, was passiert.	Anna sitzt im Rollstuhl, der sich beim Überqueren der Zuggleise in einer Gleiskuhle verfangen hat. Jan sieht, dass aus der Ferne ein Zug anfährt. Als Jan bei Anna an den Gleisen angekommen ist, hat Anna sich selber schon befreit, sodass er ihr nicht mehr helfen muss.	care
31	Als Jan erfährt, dass Annas Mutter schwerkrank im Krankenhaus liegt, bietet er ihr an, frei zu nehmen, und ihr und ihrer Familie für eine Zeit zu helfen.	Als Jan erfährt, dass Annas Mutter schwerkrank im Krankenhaus liegt, bricht er den Kontakt zu ihr ab, da er sich auf seinen Job konzentrieren muss und nicht mit ihren Problemen belastet werden möchte.	Als Jan erfährt, dass Annas Mutter schwerkrank im Krankenhaus liegt, ruft Jan Anna an und drückt ihr sein Mitgefühl aus.	care
32	Nach einem Unfall ist Anna an den Rollstuhl gebunden. Jan kündigt daraufhin seinen Job, zieht bei ihr ein und pflegt sie in Vollzeit.	Nach einem Unfall ist Anna an den Rollstuhl gebunden. Jan kündigt Anna darauf die Freundschaft, damit er Anna nicht pflegen muss.	Nach einem Unfall ist Anna an den Rollstuhl gebunden. Jan lebt in einer anderen Stadt und ruft Anna an, um sie zu fragen, wie es ihr geht.	care

APPENDIX A

Nr	positiv	negativ	neutral	foundation
33	Jan und Anna sind für ein Hilfsprojekt in ein Kriegsgebiet gereist, um medizinische Ersthilfe zu leisten. Der Hilfstransport gerät unter Beschuss militanter Gruppen. Als Jan sieht, dass Anna angeschossen wurde, läuft er von dem schützenden Transporter ins freie Feld zu Anna, um sie in Sicherheit zu bringen.	Jan und Anna sind für ein Hilfsprojekt in ein Kriegsgebiet gereist, um medizinische Ersthilfe zu leisten. Der Hilfstransport gerät unter Beschuss militanter Gruppen. Als Jan sieht, dass Anna angeschossen wurde, hilft er Anna nicht und lässt sie auf dem freien Feld liegen.	Jan und Anna sind für ein Hilfsprojekt in ein Kriegsgebiet gereist, um medizinische Ersthilfe zu leisten. Der Hilfstransport gerät unter Beschuss militanter Gruppen. Jan sieht, dass Anna angeschossen wurde. Während Jan versucht Anna zu retten, wird er angeschossen und bringt sich daraufhin in Sicherheit.	care
34	Anna sitzt alleine auf einer Parkbank und weint. Jan beobachtet dies vom Kiosk gegenüber, in dem er arbeitet. Jan geht zu Anna und bringt ihr einen Tee, um sie aufzumuntern.	Anna sitzt alleine auf einer Parkbank und weint. Jan beobachtet dies vom Kiosk gegenüber, in dem er arbeitet. Jan herrscht Anna an, woanders zu weinen, da Annas trauriger Anblick schlecht fürs Geschäft sei.	Anna sitzt alleine auf einer Parkbank und weint. Jan beobachtet dies vom Kiosk gegenüber, in dem er arbeitet. Als Anna sich später etwas zu trinken am Kiosk kauft, wünscht Jan Anna einen schönen Tag.	care
35	Anna bleibt mit ihrem Rollstuhl in einem Absperrband hängen. Als Jan das sieht, läuft er zu ihr hin und zieht das Absperrband aus den Rollen.	Anna bleibt mit ihrem Rollstuhl in einem Absperrband hängen. Als Jan das sieht, lacht er sie aus und hilft ihr nicht.	Anna bleibt mit ihrem Rollstuhl in einem Absperrband hängen. Vertieft in Gedanken, sieht Jan Anna nicht und geht an ihr vorbei.	care
36	Jan ist der Schwager von Anna. Als bei Anna Krebs diagnostiziert wird, weicht Jan ihr nicht mehr von der Seite. Er begleitet sie zu jeder einzelnen Chemotherapie-Sitzung.	Jan ist der Schwager von Anna. Als bei Anna Krebs diagnostiziert wird, meidet Jan jeglichen Kontakt zu Anna, da er keine Lust hat, Anna zu pflegen.	Jan ist der Schwager von Anna. Als bei Anna Krebs diagnostiziert wird, ist Jan besorgt um Anna und ruft sie an, um sich zu erkundigen, wie es ihr geht.	care
37	Nach einem Konzert steht Jan in der Schlange an der Garderobe, als er sieht wie Anna, eine Frau neben ihm, plötzlich kreidebleich wird. Anna verdreht die Augen und ihre Beine werden wackelig. Jan schnellt zu ihr hin und kann die Frau gerade noch auffangen, bevor sie auf den Steinboden gefallen wäre.	Nach einem Konzert steht Jan in der Schlange an der Garderobe, als er sieht wie Anna, eine Frau neben ihm, plötzlich kreidebleich wird. Anna verdreht die Augen und ihre Beine werden wackelig. Da Jan Anna nicht kennt und schnell nach Hause möchte, sieht er es nicht ein ihr zu helfen und lässt sie auf den Steinboden fallen.	Nach einem Konzert steht Jan in der Schlange an der Garderobe, als er sieht wie Anna, eine Frau neben ihm, plötzlich kreidebleich wird. Anna verdreht die Augen und ihre Beine werden wackelig. Jan reagiert nicht schnell genug, weshalb er Anna nicht mehr auffangen kann, sodass sie auf den Boden fällt.	care
38	Jan und Anna sind befreundet. Nachdem Annas Mann vergangene Woche verstorben ist, kümmert Jan sich regelmäßig um sie. Er unterstützt sie im Haushalt und leistet ihr in schweren Stunden Gesellschaft.	Jan und Anna sind befreundet. Obwohl Annas Mann vergangene Woche verstorben ist, kümmert Jan sich nicht um sie. Er leistet ihr in diesen schweren Stunden keine Gesellschaft, weil er keine	Jan und Anna sind befreundet. Annas Mann ist vergangene Woche verstorben. Jan erzählt Anna, dass seine Frau auch vor einem Jahr gestorben sei.	care

APPENDIX A

Nr	positiv	negativ	neutral	foundation
		Lust auf Trauerstimmung hat.		
39	Jan feiert einen Geburtstag mit Freunden. Seine Freundin Anna ist besorgt um ihn, da er nach der Feier alleine Bus fahren muss, um nach Hause zu kommen. Deshalb verspricht Jan ihr, sich zu melden, wenn er im Bus sitzt und wenn er aussteigt. Jan meldet sich beide Male zuverlässig, obwohl er sich im Bus dafür ein Handy eines Fremden leihen muss, da sein Akku leer ist.	Jan feiert einen Geburtstag mit Freunden. Seine Freundin Anna ist besorgt um ihn, da er nach der Feier alleine Bus fahren muss, um nach Hause zu kommen. Deshalb verspricht Jan ihr, sich zu melden, wenn er im Bus sitzt und wenn er aussteigt. Jan ist allerdings nach der Feier so müde, dass er keine Lust hat, sich bei seiner Freundin zu melden.	Jan feiert einen Geburtstag mit Freunden. Seine Freundin Anna ist besorgt um ihn, da er nach der Feier alleine Bus fahren muss, um nach Hause zu kommen. Deshalb verspricht Jan ihr, sich zu melden, wenn er im Bus sitzt und wenn er aussteigt. Auf der Feier wurde Jan das Handy geklaut, weshalb er sich nicht mehr bei Anna meldet.	care
40	Jan und Anna sind gute Freunde und wohnen zusammen. Gestern ist Jans PC kaputt gegangen. Jan weiß, dass Anna sensible Patientendaten auf ihrem PC gespeichert hat und fragt sie daher nicht, ob er ihrer PC benutzen darf, um etwas im Internet nachzusehen, da er sie nicht in eine missliche Lage bringen möchte. Stattdessen fährt er in die Uni und benutzt dort einen PC.	Jan und Anna sind gute Freunde und wohnen zusammen. Gestern ist Jans PC kaputt gegangen. Jan benutzt einfach den Computer von Anna, um etwas im Internet nachzuschauen, obwohl Anna ausdrücklich gesagt hat, dass sie das nicht möchte, da sich auf dem PC sensible Patientendaten befinden.	Jan und Anna sind gute Freunde und wohnen zusammen. Gestern ist Jans PC kaputt gegangen. Jan fragt Anna, ob er ihren PC benutzen dürfe, um etwas im Internet nachzuschauen.	fairness
41	Jan und Anna spielen ein Spiel um 200 Euro. Beide können das Geld gut gebrauchen, da sie für ihre Sommerurlaube sparen. Als Anna das Geld gewinnt und Jan leer ausgeht gratuliert er ihr und freut sich für sie.	Jan und Anna spielen ein Spiel um 200 Euro. Beide können das Geld gut gebrauchen, da sie für ihre Sommerurlaube sparen. Um das Geld für sich zu gewinnen, schummelt Jan.	Jan und Anna spielen ein Spiel um 200 Euro. Beide können das Geld gut gebrauchen, da sie für ihre Sommerurlaube sparen. Jan wünscht Anna viel Glück.	fairness
42	Jan und Anna sind seit kurzer Zeit Nachbarn. Durch Zufall erfahren sie, dass sie sich auf denselben Job beworben haben. Am Tag des Bewerbungsgesprächs sieht Jan, wie Anna verzweifelt versucht ihr Auto zu starten. Damit Anna nicht zu spät zu ihrem Termin kommt, nimmt Jan sie mit und fährt dafür extra mit dem Auto statt mit dem Fahrrad.	Jan und Anna sind seit kurzer Zeit Nachbarn. Durch Zufall erfahren sie, dass sie sich auf denselben Job beworben haben. Am Tag der Bewerbungsgespräche sticht Jan Anna die Fahrradreifen kaputt, damit sie zu spät zu ihrem Termin kommt.	Jan und Anna sind seit kurzer Zeit Nachbarn. Durch Zufall erfahren sie, dass sie sich auf denselben Job beworben haben. Jan fragt Anna, wo sie davor gearbeitet hat.	fairness
43	Jan sieht, dass Annas Geldbeutel unbemerkt aus der Tasche fällt. Jan hebt den Geldbeutel auf und gibt ihn Anna zurück.	Jan sieht, dass Annas Geldbeutel unbemerkt aus der Tasche fällt. Jan findet den Geldbeutel, behält das Geld und wirft den	Jan sieht, dass Annas Geldbeutel unbemerkt aus der Tasche fällt. Jan ruft Anna nach, dass ihr etwas aus der Tasche gefallen sei.	fairness

Nr	positiv	negativ	neutral	foundation
		restlichen Inhalt ins Gebüsch.		
44	Die Kassiererin Anna gibt Jan im Supermarkt anstelle eines 10€ Scheins versehentlich einen 50€ Schein zurück. Jan macht Anna darauf aufmerksam und gibt ihr das Geld zurück.	Die Kassiererin Anna gibt Jan im Supermarkt anstelle eines 10€ Schein versehentlich einen 50€ Schein zurück. Obwohl Jan dies sofort merkt, gibt er Anna das Geld nicht zurück, obwohl ihm klar ist, dass Angestellte die Differenz vom Lohn bezahlen müssen.	Die Kassiererin Anna gibt Jan im Supermarkt anstelle eines 10€ Scheins versehentlich einen 50€ Schein zurück. Jan bemerkt dies nicht und steckt das Geld ein.	fairness
45	Jan und Anna haben zusammen ein Lotterielos gekauft und sie gewinnen den Hauptgewinn. Weil Jan weiß, dass Anna Geldprobleme hat, verzichtet er auf seinen Anteil des Gewinns.	Jan und Anna haben zusammen ein Lotterielos gekauft und sie gewinnen den Hauptgewinn. Jan behält den vollen Anteil des Geldes, obwohl er weiß, dass Anna Schulden hat, während er durch ein Erbe gerade erst zu viel Geld gekommen ist.	Jan und Anna haben zusammen ein Lotterielos gekauft und sie gewinnen den Hauptgewinn. Jan überweist Anna die Hälfte des Gewinns.	fairness
46	Jan und Anna spielen zusammen Tennis. Es ist sehr heiß, daher machen sie eine kurze Pause. Anna hat kein Wasser dabei. Obwohl Jan großen Durst und nur noch wenig Wasser hat, teilt Jan das Wasser mit Anna.	Jan und Anna spielen zusammen Tennis. Es ist sehr heiß, daher machen sie eine kurze Pause. Anna hat kein Wasser dabei. Jan gibt Anna nichts vom Wasser ab, obwohl Anna großen Durst hat.	Jan und Anna spielen zusammen Tennis. Es ist sehr heiß, daher machen sie eine kurze Pause. Jan gibt Anna die Wasserflasche.	fairness
47	Jan sieht, wie Anna vor dem Ticketautomaten in der Bahn steht und verzweifelt ihr Portemonnaie sucht, um ein Ticket zu lösen, als der Schaffner kommt, um die Fahrscheine zu kontrollieren. Anna hat offensichtlich ihr Portemonnaie verloren, weshalb Jan zu ihr geht und ihr das Geld für das Ticket gibt.	Jan sieht, wie Anna vor dem Ticketautomaten in der Bahn steht und verzweifelt ihr Portemonnaie sucht, um ein Ticket zu lösen, als der Schaffner kommt, um die Fahrscheine zu kontrollieren. Anna hat offensichtlich ihr Portemonnaie verloren. Obwohl Jan Anna kostenlos mit auf sein Ticket nehmen könnte, sieht er zu, wie Anna eine Strafe wegen Schwarzfahren zahlen muss.	Jan sieht, wie Anna vor dem Ticketautomaten in der Bahn steht und verzweifelt ihr Portemonnaie sucht, um ein Ticket zu lösen, als der Schaffner kommt, um die Fahrscheine zu kontrollieren. Anna hat offensichtlich ihr Portemonnaie verloren. Jan bietet Anna an, auf seinem Ticket mitzufahren, da er kostenfrei jemanden mitnehmen kann.	fairness
48	Anna hat den großen Wunsch, ein Studium an der Universität aufzunehmen, hat aber nur geringe finanzielle Mittel. Jan schenkt Anna einen neuen Laptop, den er	Anna hat den großen Wunsch, ein Studium an der Universität aufzunehmen, hat aber nur geringe finanzielle Mittel. Obwohl Jan einen neuen Laptop von seinen Eltern	Anna hat den großen Wunsch, ein Studium an der Universität aufzunehmen, hat aber nur geringe finanzielle Mittel. Da Jan gerade einen neuen Laptop von seinen Eltern	fairness

Nr	positiv	negativ	neutral	foundation
	von seinem Ersparten gekauft hat.	geschenkt bekommen hat, gibt er Anna nicht seinen alten Laptop, den sie gut gebrauchen könnte. Stattdessen wirft er ihn weg, obwohl er noch funktioniert.	geschenkt bekommen hat, verkauft er Anna seinen alten, noch funktionierenden Laptop.	
49	Jan kommt nach Hause und sieht, dass seine Nachbarin Anna, die er nur flüchtig kennt, Umzugskartons aus dem vierten Stock ins Erdgeschoss trägt. Es ist niemand dort, der Anna hilft. Kurzerhand bietet Jan daher an beim Umzug zu helfen.	Jan kommt nach Hause und sieht, dass seine Nachbarin Anna, die er nur flüchtig kennt, Umzugskartons aus dem vierten Stock ins Erdgeschoss trägt. Es ist niemand dort, der Anna hilft. Als Anna Jan bittet, ihr gegen Bezahlung zu helfen, lehnt Jan ab, obwohl er sieht, wie verzweifelt Anna ist.	Jan kommt nach Hause und sieht, dass seine Nachbarin Anna, die er nur flüchtig kennt, Umzugskartons aus dem vierten Stock ins Erdgeschoss trägt. Es ist niemand dort, der Anna hilft. Als Anna Jan bittet, ihm gegen Bezahlung zu helfen, muss Jan aus Zeitmangel ablehnen, ruft aber einen guten Freund an und fragt, ob dieser helfen könnte.	fairness
50	Jan geht mit seiner Frau Anna in einem gehobenen Restaurant essen. Als sie Platz nehmen, nimmt Jan seiner Frau den Mantel ab. Jan findet, dass sich so etwas aus Respekt gehört.	Jan geht mit seiner Frau Anna in einem gehobenen Restaurant essen. Als seine Frau ihn bittet ihre Jacke mitaufzuhängen erwidert Jan, dass sie ihre Jacke selber aufhängen solle und außerdem schlechte Manieren hätte, da sie ihm eigentlich ihre Hilfe anbieten müsse.	Jan geht mit seiner Frau Anna in einem gehobenen Restaurant essen. Bevor sie Platz nehmen, möchte Jan seine Jacke aufhängen und fragt daher seine Frau, ob er ihre Jacke mitaufhängen solle.	fairness
51	Anna ist Kellnerin in einem Restaurant, in dem Jan zu Abend isst. Jan bestellt sich mehrere Gänge. Nach dem Essen gibt Jan ein sehr großzügiges Trinkgeld und verabschiedet sich freundlich.	Anna ist Kellnerin in einem Restaurant, in dem Jan zu Abend isst. Jan bestellt sich mehrere Gänge. Nach dem Essen verlässt er das Restaurant ohne zu bezahlen, obwohl er weiß, dass die Angestellten die Differenz in der Kasse von ihrem Gehalt zahlen müssen.	Anna ist Kellnerin in einem Restaurant, in dem Jan zu Abend isst. Jan bestellt sich mehrere Gänge. Nach dem Essen bezahlt er bei Anna und verlässt das Restaurant.	fairness
52	Jan und Anna sind Nachbarn. Jan hat einen Haustürschlüssel von Anna, um ab und an nach dem Rechten zu schauen. Einmal geht Jan, ohne dass Anna dies weiß, in Annas Wohnung, da er lautes Miauen hört und schaut, ob Annas Katze etwas zugestoßen ist.	Jan und Anna sind Nachbarn. Jan hat einen Haustürschlüssel von Anna, um ab und an nach dem Rechten zu schauen. Einmal geht Jan, ohne dass Anna dies weiß, in Annas Wohnung und stöbert in ihrem Schlafzimmer.	Jan und Anna sind Nachbarn. Jan hat einen Haustürschlüssel von Anna, um ab und an nach dem Rechten zu schauen. Einmal geht Jan, ohne dass Anna dies weiß, in Annas Wohnung und stöbert auf ihrem Schreibtisch, weil er dort wichtige Unterlagen vergessen hat und Anna nicht erreichen kann.	fairness

APPENDIX A

Nr	positiv	negativ	neutral	foundation
53	Jan und Anna wohnen zusammen. Einmal pro Woche kochen sie abwechselnd für den anderen. Um Anna eine Freude zu machen hat Jan diese Woche etwas gekocht, das Anna sehr gerne isst, obwohl er das Gericht selber nicht gerne mag.	Jan und Anna wohnen zusammen. Einmal pro Woche kochen sie abwechselnd für den anderen. Diese Woche hat Jan etwas gekocht, dass Anna nicht mag, damit Jan mehr für sich hat.	Jan und Anna wohnen zusammen. Einmal pro Woche kochen sie abwechselnd für den Anderen. Diese Woche hat Jan etwas gekocht, das Jan und Anna beide gerne essen.	fairness
54	Jan hat sich von Anna einen Standmixer ausgeliehen, der schon ein wenig kaputt ist. Beim Kochen fällt Jan der Mixer runter und geht ganz kaputt. Jan beichtet Anna den Unfall und kauft von sich aus einen teuren neuen Standmixer.	Jan hat sich von Anna einen Standmixer ausgeliehen, der schon ein wenig kaputt ist. Beim Kochen fällt Jan der Mixer runter und geht ganz kaputt. Als er Anna den Standmixer wieder zurück gibt, behauptet er, dass er bereits ganz kaputt gewesen sei, bevor er ihn ausgeliehen hat.	Jan hat sich von Anna einen Standmixer ausgeliehen, der schon ein wenig kaputt ist. Beim Kochen fällt Jan der Mixer runter und geht ganz kaputt. Jan entschuldigt sich und sorgt dafür, dass die Versicherung den Schaden begleicht.	fairness
55	Anna fällt auf der Straße ihr Geldbeutel auf den Boden. Jan sieht es und eilt zu Anna, um ihr zu helfen, die herausgefallenen Münzen aufzusammeln. Da Anna nicht alle Münzen wiederfindet, das Kleingeld aber für eine Busfahrkarte benötigt, steckt Jan ihr Geld aus der eigenen Tasche zu.	Anna fällt auf der Straße ihr Geldbeutel auf den Boden. Jan sieht es und eilt zu Anna, um ihr zu helfen, die herausgefallenen Münzen aufzusammeln. Heimlich steckt Jan dabei ein paar Münzen in die eigene Tasche.	Anna fällt auf der Straße ihr Geldbeutel auf den Boden. Jan sieht es und eilt zu Anna, um zu helfen, die herausgefallenen Münzen aufzusammeln.	fairness
56	Jan ist Annas Versicherungsberater. Jan verkauft Anna ein Versicherungspaket, das sie in der Zukunft finanziell entlasten wird, obwohl er dafür seinen gesamten Spielraum in der Finanzplanung ausschöpfen muss.	Jan ist Annas Versicherungsberater. Jan verkauft Anna ein unnötiges Versicherungspaket, um die Anzahl der angestrebten monatlichen Verträge zu erreichen, obwohl er weiß, dass Anna finanzielle Probleme hat.	Jan ist Annas Versicherungsberater. Jan verkauft Anna ein gutes Versicherungspaket, um die Anzahl der angestrebten monatlichen Verträge zu erreichen.	fairness
57	Jan und Anna wohnen gemeinsam in einer Altbauwohnung. Jan fährt für eine Woche in den Winterurlaub, stellt die Heizung wie vereinbart ab und nimmt aus Versehen den Schlüssel zum Heizungsraum mit. Als Anna Jan darüber benachrichtigt fährt er extra 4 Stunden mit dem Auto nach Hause, um ihr den Schlüssel zu geben.	Jan und Anna wohnen gemeinsam in einer Altbauwohnung. Jan fährt für eine Woche in den Winterurlaub, stellt die Heizung ab und nimmt absichtlich den Kellerschlüssel mit, sodass Anna die Heizung nicht wieder anstellen kann und kein warmes Wasser hat.	Jan und Anna wohnen gemeinsam in einer Altbauwohnung. Jan fährt für eine Woche in den Winterurlaub, stellt die Heizung wie vereinbart ab und nimmt aus Versehen den Schlüssel zum Heizungsraum mit, sodass Anna zum Nachbarn gehen und sich dort den Schlüssel zum Keller holen muss.	fairness

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Nr	positiv	negativ	neutral	foundation
58	Jan und Anna sind beide am Hauptbahnhof und warten auf ihre Züge. Anna vergisst ihre Tasche am Bahnsteig, als sie in den Zug einsteigt. Jan sieht das und trägt ihr die Tasche hinterher, obwohl er deshalb seinen Anschlusszug verpasst.	Jan und Anna sind beide am Hauptbahnhof und warten auf ihre Züge. Anna vergisst ihre Tasche am Bahnsteig, als sie in den Zug einsteigt. Jan sieht das und nimmt die Tasche selber mit, in der Hoffnung, dass sich darin Wertgegenstände befinden, die er nutzen oder weiterverkaufen kann.	Jan und Anna sind beide am Hauptbahnhof und warten auf ihre Züge. Anna vergisst ihre Tasche am Bahnsteig, als sie in den Zug einsteigt. Jan sieht das und ruft Anna hinterher, sodass sie umkehrt und die Tasche noch rechtzeitig holt, bevor der Zug losfährt.	fairness
59	Anna und Jan fahren mit dem Zug nach Frankfurt und stoßen vor der Tür eines Abteils aufeinander. Beide haben aufgrund eines Buchungsfehlers die gleiche Sitznummer auf ihrer Reservierung. Jan überlässt Anna den Sitzplatz und setzt sich selbst auf den Gang.	Anna und Jan fahren mit dem Zug nach Frankfurt und stoßen vor der Tür eines Abteils aufeinander. Beide haben aufgrund eines Buchungsfehlers die gleiche Sitznummer auf ihrer Reservierung. Jan besteht auf seinen Sitzplatz, obwohl Anna ein gebrochenes Bein hat.	Anna und Jan fahren mit dem Zug nach Frankfurt und stoßen vor der Tür eines Abteils aufeinander. Beide haben aufgrund eines Buchungsfehlers die gleiche Sitznummer auf ihrer Reservierung. Jan überlässt Anna den Sitzplatz und setzt sich selbst auf einen anderen freien Platz.	fairness
60	Jan und Anna frühstücken gemeinsam gemütlich am Küchentisch mit einer Gruppe Freunden. Anna schielt auf das letzte Schokocroissant. Jan gibt es ihr, obwohl er es selbst auch gerne essen würde.	Jan und Anna frühstücken gemeinsam gemütlich am Küchentisch mit einer Gruppe Freunden. Anna schielt auf das letzte Schokocroissant. Jan nimmt und isst es einfach, ohne Anna zu fragen, ob sie auch noch etwas möchte.	Jan und Anna frühstücken gemeinsam gemütlich am Küchentisch mit einer Gruppe Freunden. Anna schielt auf das letzte Schokocroissant. Jan fragt Anna, ob sie sich das Schokocroissant teilen wollen.	fairness
61	Anna schreibt Nächte lang an ihrer wichtigen Hausarbeit, deren Abgabetermin immer näher rückt. Als ihr Computer kaputtgeht, ist sie verzweifelt. Jan leiht ihr seinen Computer, obwohl er ihn selbst dringend benötigt.	Anna schreibt Nächte lang an ihrer wichtigen Hausarbeit, deren Abgabetermin immer näher rückt. Als ihr Computer kaputtgeht, ist sie verzweifelt. Jan weigert sich, ihr seinen alten Computer, den er momentan nicht braucht, zu leihen.	Anna schreibt Nächte lang an ihrer wichtigen Hausarbeit, deren Abgabetermin immer näher rückt. Als ihr Computer kaputtgeht, ist sie verzweifelt. Jan leiht ihr seinen alten Computer, den er nicht mehr benutzt.	fairness
62	Anna hat nach einem kalten Winter eine überraschend hohe Stromrechnung bekommen und ist nun für den Rest des Monats pleite. Jan gibt ihr etwas von seinem Ersparten, obwohl er es für einen lang ersehnten Sommerurlaub ausgeben wollte.	Anna hat nach einem kalten Winter eine überraschend hohe Stromrechnung bekommen und ist nun für den Rest des Monats pleite. Jan schuldet Anna noch Geld. Auf Anfrage von Anna weigert er sich aber es zurück zu zahlen, obwohl es schon lange überfällig ist.	Anna hat nach einem kalten Winter eine überraschend hohe Stromrechnung bekommen und ist nun für den Rest des Monats pleite. Jan gibt ihr etwas von seinem Ersparten, unter der Prämisse, dass er es nächsten Monat zurückbekommt.	fairness
63	Anna erzählt Jan im Vertrauen von ihrer	Anna erzählt Jan im Vertrauen von ihrer	Anna erzählt Jan im Vertrauen von ihrer	fairness

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Nr	positiv	negativ	neutral	foundation
	Verkaufsidee. Jan übernimmt nach Absprache mit Anna die Idee und eröffnet auf dieser Grundlage ein Unternehmen, das er nach Anna benennt und von dessen Gewinn er ihr 60% abgibt.	Verkaufsidee. Jan übernimmt die Idee von Anna als seine eigene und eröffnet auf dieser Grundlage ein Unternehmen, ohne Anna am Gewinn zu beteiligen.	Verkaufsidee. Jan übernimmt die Idee von Anna und eröffnet auf dieser Grundlage ein Unternehmen und macht Anna zur leitenden Managerin.	
64	Anna pendelt wöchentlich zwischen Hamburg und Berlin. Wie an jedem Freitagabend sitzt sie im ICE. Jan, der für die Bahn arbeitet, fordert Anna auf, ihr Ticket sowie die BahnCard vorzuzeigen. Dabei bemerkt Anna, dass ihr Portemonnaie geklaut wurde. Anna kann weder Ticket, noch BahnCard vorzeigen. Jan glaubt ihr und stellt ihr kein Bußgeld aus, auch wenn ihn das in Schwierigkeiten bringen könnte, weil er es eigentlich nicht darf.	Anna pendelt wöchentlich zwischen Hamburg und Berlin. Wie an jedem Freitagabend sitzt sie im ICE. Jan, der für die Bahn arbeitet, fordert Anna auf, ihr Ticket sowie die BahnCard vorzuzeigen. Dabei bemerkt Anna, dass ihr Portemonnaie geklaut wurde. Sie kann ihr Ticket, aber nicht die BahnCard vorzeigen. Jan stellt ihr ein Bußgeld von 60€ aus, obwohl er sie von der Fahrt in der vorherigen Woche wiedererkennt.	Anna pendelt wöchentlich zwischen Hamburg und Berlin. Wie an jedem Freitagabend sitzt sie im ICE. Jan, der für die Bahn arbeitet, fordert Anna auf, ihr Ticket sowie die BahnCard vorzuzeigen. Dabei bemerkt Anna, dass ihr Portemonnaie geklaut wurde. Sie kann ihr Ticket, aber nicht die BahnCard vorzeigen. Jan glaubt Anna und stempelt ihr Ticket ab.	fairness
65	Jan und Anna sind ein Paar und gehen zusammen einkaufen. Anna fragt Jan nach seiner Meinung zu einem Buch, da sie überlegt es sich zu kaufen. Jan lügt Anna an und sagt ihr, dass das Buch nicht lesenswert sei, weil er es ihr schon als Weihnachtsgeschenk gekauft hat und sie damit überraschen möchte.	Jan und Anna sind ein Paar und gehen zusammen einkaufen. Anna fragt Jan nach seiner Meinung zu einem Buch, da sie überlegt es sich zu kaufen. Jan rät Anna von dem Kauf ab, da er es für absurd hält, Geld für Bücher auszugeben und lieber möchte, dass Anna ihm einen neue Tasche mitfinanziert.	Jan und Anna sind ein Paar und gehen zusammen einkaufen. Anna fragt Jan nach seiner Meinung zu einem Buch, da sie überlegt es sich zu kaufen. Jan sagt Anna, dass er das Buch nicht kenne.	fairness
66	Anna und Jan nehmen an einem Marathon teil. Beide laufen im vorderen Mittelfeld mit und zielen auf neue Bestzeiten ab. Kurz vor dem Zieleinlauf rempelt Jan Anna aus Versehen an, sodass Anna stolpert und sich verletzt. Jan entschuldigt sich bei Anna und tritt von seinem Sieg zurück.	Anna und Jan nehmen an einem Marathon teil. Beide laufen im vorderen Mittelfeld mit und zielen auf neue Bestzeiten ab. Kurz vor dem Zieleinlauf rempelt Jan Anna absichtlich an, sodass Anna stolpert und sich verletzt und Jan als Gewinner durchs Ziel kommt.	Anna und Jan nehmen an einem Marathon teil. Beide laufen im vorderen Mittelfeld mit und zielen auf neue Bestzeiten ab. Kurz vor dem Zieleinlauf rempelt Jan Anna aus Versehen an, sodass beide stolpern und stürzen.	fairness
67	Jan und Anna wohnen zusammen. Sie haben einen gemeinsamen Putzplan und wechseln sich wöchentlich mit dem Wischen des Bodens ab. Anna hat gerade den Boden gewischt, als Jan mit dreckigen Schuhen hereinkommt. Als Jan sieht,	Jan und Anna wohnen zusammen. Sie haben einen gemeinsamen Putzplan und wechseln sich wöchentlich mit dem Wischen des Bodens ab. Anna hat gerade den Boden gewischt, als Jan mit dreckigen Schuhen	Jan und Anna wohnen zusammen. Sie haben einen gemeinsamen Putzplan und wechseln sich wöchentlich mit dem Wischen des Bodens ab. Anna hat gerade den Boden gewischt, als Jan, ohne es zu bemerken, mit dreckigen Schuhen	fairness

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Nr	positiv	negativ	neutral	foundation
	dass er dreckige Fußspuren hinterlässt, zieht er die Schuhe sofort aus und wischt die dreckigen Fußspuren im Flur weg, obwohl er in Eile ist.	hereinkommt. Jan läuft extra mit den dreckigen Schuhen durch die Wohnung, damit Anna mehr Arbeit hat und noch einmal wischen muss.	hereinkommt. Als Jan sieht, dass er dreckige Fußspuren hinterlässt, zieht er die Schuhe sofort aus und entschuldigt sich bei Anna.	
68	Jan und Anna trinken bei Anna gemeinsam Tee. Anna gibt Jan ihre Lieblingstasse mit noch heißem Tee. Jan verbrennt sich die Finger, weil der Tee so heiß ist und lässt die Tasse aus Reflex fallen, worauf die Tasse zersplittert. Jan entschuldigt sich und kauft Anna die gleiche Tasse nach, nach der er tagelang in sämtlichen Läden gesucht hat.	Jan und Anna trinken bei Anna gemeinsam Tee. Anna gibt Jan ihre Lieblingstasse mit noch heißem Tee. Jan ärgert sich darüber, dass Anna ihm eine heiße Tasse in die Hand gibt und lässt die Tasse einfach fallen.	Jan und Anna trinken bei Anna gemeinsam Tee. Anna gibt Jan ihre Lieblingstasse. Jan stößt die Tasse aus Versehen um, sodass sie zersplittert.	fairness
69	Anna geht zum Bäcker und kauft Brötchen. Nachdem sie bezahlt hat, verlässt sie den Laden, vergisst die Brötchen allerdings auf dem Tresen. Als der Kunde Jan das sieht, schnappt er sich die Brötchen und eilt Anna hinterher.	Anna geht zum Bäcker und kauft Brötchen. Nachdem sie bezahlt hat, verlässt sie den Laden, vergisst die Brötchen allerdings auf dem Tresen. Als der Kunde Jan das sieht, freut er sich und nimmt die Brötchen einfach mit, um sie selber zu essen.	Anna geht zum Bäcker und kauft Brötchen. Nachdem sie bezahlt hat, verlässt sie den Laden, vergisst die Brötchen allerdings auf dem Tresen. Als der Kunde Jan das sieht, ruft er Anna hinterher, die ihn allerdings nicht mehr hört.	fairness
70	Jan und Anna arbeiten zusammen an einem Arbeitsprojekt. Nachdem das Projekt fertig gestellt ist, hält Jan drüber eine Präsentation. Annas Beitrag zum Projekt wird dabei von Jan in besonderer Weise gelobt.	Jan und Anna arbeiten zusammen an einem Arbeitsprojekt. Nachdem das Projekt fertig gestellt ist, hält Jan darüber eine Präsentation und stellt es so dar, als hätte er das Projekt alleine erarbeitet.	Jan und Anna arbeiten zusammen an einem Arbeitsprojekt. Nachdem das Projekt fertig gestellt ist, hält Jan darüber eine Präsentation. Annas Beitrag wird dabei von Jan in angemessener Weise erwähnt.	fairness
71	Anna und Jan wollen mit einem Freund am Samstag auf eine angesagte Party gehen. Ihr Freund nennt Anna einen falschen Treffpunkt, um allein mit Jan zu gehen, da er Anna nicht dabeihaben möchte. Jan erfährt davon und nennt Anna den wahren Treffpunkt.	Anna und Jan wollen mit einem Freund am Samstag auf eine angesagte Party gehen. Jan nennt Anna einen falschen Treffpunkt, um allein mit dem gemeinsamen Freund gehen zu können, da er Anna nicht dabei haben möchte.	Anna und Jan wollen mit einem Freund am Samstag auf eine angesagte Party gehen. Jan nennt Anna versehentlich einen falschen Treffpunkt.	fairness
72	Jan und Anna lernen gemeinsam für eine wichtige und schwierige Klausur. Jan weist Anna darauf hin, dass eine für die Klausur extrem wichtige Seite aus Annas Buch gerissen wurde und kopiert ihr diese Seite aus seinem Buch heraus.	Jan und Anna lernen gemeinsam für eine wichtige und schwierige Klausur. Jan reißt aus dem Arbeitsbuch von Anna eine wichtige Seite heraus, sodass sie einen Nachteil beim Lernen hat.	Jan und Anna lernen gemeinsam für eine wichtige und schwierige Klausur. Jan bringt Anna das Arbeitsbuch aus der Bibliothek mit.	fairness

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Nr	positiv	negativ	neutral	foundation
73	Anna und Jan gehen am Wochenende gemeinsam einkaufen, um Schnäppchen im Winterschlussverkauf zu ergattern. Jan rät Anna vom Kauf eines Schals ab, weil er sieht, dass er ein Loch hat. Er findet den Schal auch im Internet reduziert und kauft ihn ihr, obwohl er ihn selbst gerne behalten hätte.	Anna und Jan gehen am Wochenende gemeinsam einkaufen, um Schnäppchen im Winterschlussverkauf zu ergattern. Jan rät Anna vom Kauf eines Schals ab, der stark reduziert ist, weil er ihn für sich selbst kaufen möchte.	Anna und Jan gehen am Wochenende gemeinsam einkaufen, um Schnäppchen im Winterschlussverkauf zu ergattern. Jan berät Anna beim Kauf eines Schals, der stark reduziert ist.	fairness
74	Jan und Anna sitzen in einem Zugabteil. Anna bittet Jan einen Blick auf ihre Tasche zu werfen, während sie auf die Toilette geht. Anna braucht länger als erwartet und Jan müsste eigentlich aussteigen. Da er Angst hat, dass etwas geklaut werden könnte, fährt er noch eine Station weiter, auch wenn er dadurch einen Umweg in Kauf nehmen muss.	Jan und Anna sitzen in einem Zugabteil. Anna bittet Jan einen Blick auf ihre Tasche zu werfen, während sie auf die Toilette geht. Nachdem Anna das Abteil verlassen hat, nimmt Jan die Tasche und steigt damit an der nächsten Station aus.	Jan und Anna sitzen in einem Zugabteil. Anna bittet Jan einen Blick auf ihre Tasche zu werfen, während sie auf die Toilette geht. Nachdem Anna zurückgekehrt ist, steigt Jan aus.	fairness
75	Anna und Jan arbeiten zusammen an der gleichen Hausarbeit. Jan stößt bei der Literaturrecherche dafür auf ein relevantes Buch, von dem nur ein Exemplar vorliegt. Als Anna Jan berichtet, wie sie an der Literaturrecherche verzweifelt, gibt Jan Anna das Buch, auch wenn er es potenziell selber gut gebrauchen könnte.	Anna und Jan arbeiten zusammen an der gleichen Hausarbeit. Jan stößt bei der Literaturrecherche dafür auf ein relevantes Buch. Damit Jan einen Vorteil bei der Bearbeitung der Hausarbeit hat, versteckt er das Buch vor Anna.	Anna und Jan arbeiten zusammen an der gleichen Hausarbeit. Jan stößt bei der Literaturrecherche dafür auf ein relevantes Buch. Jan fragt Anna, ob sie das Buch bereits kenne.	fairness
76	Jan und Anna müssen gemeinsam eine Prüfungsleistung erbringen. Jan übernimmt einen größeren Teil des Aufwands, weil er weiß, dass Anna gerade parallel sehr viele Prüfungen und deshalb wenig Zeit hat.	Jan und Anna müssen gemeinsam eine Prüfungsleistung erbringen. Jan übernimmt einen kleineren Teil des Aufwands und lässt Anna die meiste Arbeit machen, weil ihn das Thema nicht interessiert.	Jan und Anna müssen gemeinsam eine Prüfungsleistung erbringen. Jan verteilt die Aufgaben zwischen ihm und Anna gleich.	fairness
77	Jan und Anna haben ihr erstes Date. Während Anna kurz den Raum verlässt, um auf Toilette zu gehen, bezahlt Jan schon die Rechnung und lädt Anna ein.	Jan und Anna haben ihr erstes Date. Während Anna kurz den Raum verlässt, nimmt sich Jan heimlich Anna's Handy und liest ihre Nachrichten.	Jan und Anna haben ihr erstes Date. Während Anna kurz den Raum verlässt, um auf Toilette zu gehen, bestellt Jan für beide schon eine Flasche Wasser zu Trinken.	fairness
78	Anna zeigt Jan ihre CD-Sammlung. Als Anna kurz den Raum verlässt, schaut Jan	Anna zeigt Jan ihre CD-Sammlung. Als Anna kurz den Raum verlässt, steckt	Anna zeigt Jan ihre CD-Sammlung. Als Anna kurz	fairness

Nr	positiv	negativ	neutral	foundation
	die CD Sammlung weiter durch, um zu wissen, welche CD von Annas Lieblingsband noch fehlt, damit er sie ihr zum Geburtstag schenken kann.	Jan heimlich eine CD in die Tasche.	den Raum verlässt, legt Jan eine CD in den CD-Spieler.	
79	Anna ist Nonne in einem Kloster, das Jan in seinem Sommerurlaub in Bayern besucht. Jan hat großen Respekt für Annas Entscheidung, ihr Leben Gott zu widmen und vermeidet deshalb direkten Blickkontakt, um Anna nicht in Verlegenheit zu bringen.	Anna ist Nonne in einem Kloster, das Jan in seinem Sommerurlaub in Bayern besucht. Jan hat für Annas Religion nichts übrig und macht sich einen Spaß daraus, Anna mit anzüglichen Kommentaren in Verlegenheit zu bringen.	Anna ist Nonne in einem Kloster, das Jan in seinem Sommerurlaub in Bayern besucht. Jan grüßt Anna, als er an ihr in der Kapelle vorbeigeht.	authority
80	Jan ist Annas Vermieter. Jan kann schon seit Wochen nicht schlafen, weil der Hund seiner Mieterin Anna ununterbrochen bellt. Deshalb bietet Jan ihr an, mit ihrem Hund spazieren zu gehen, damit der Hund mehr Auslauf bekommt und nachts erschöpft ist und schläft.	Jan ist Annas Vermieter. Jan kann schon seit Wochen nicht schlafen, weil der Hund seiner Mieterin Anna ununterbrochen bellt. Jan droht Anna mit der Kündigung der Wohnung, wenn ihr Hund weiterhin den Hausfrieden stört.	Jan ist Annas Vermieter. Jan kann schon seit Wochen nicht schlafen, weil der Hund seiner Mieterin Anna ununterbrochen bellt. Als Jan Anna mit dem Hund auf der Straße begegnet, grüßt er freundlich.	authority
81	Jan und Anna leiten einen Workshop zu effektivem Präsentieren. Da Anna sehr gläubig ist würde sie gerne nach dem Mittagessen für eine halbe Stunde beten. Jan passt die Zeiten für den Workshop aus Respekt vor Annas Religion so an, dass die Mittagspause verlängert ist.	Jan und Anna leiten einen Workshop zu effektivem Präsentieren. Da Anna sehr gläubig ist würde sie gerne nach dem Mittagessen für eine halbe Stunde beten. Jan hat kein Verständnis für Annas religiöse Bedürfnisse und verkürzt im Workshopplan die Zeit für die Mittagspause.	Jan und Anna leiten einen Workshop zu effektivem Präsentieren. Da Anna sehr gläubig ist würde sie gerne nach dem Mittagessen für eine halbe Stunde beten. Jan schlägt Anna vor, die Mittagspause zu verlängern und dafür eine halbe Stunde früher am Morgen anzufangen.	authority
82	Jan kauft Brot bei einer Bäckerei und wird von der Verkäuferin Anna bedient. Obwohl Anna sehr unfreundlich war und Jan lange warten lässt wünscht Jan einen schönen Tag beim Verlassen des Ladens.	Jan kauft Brot bei einer Bäckerei und wird von der Verkäuferin Anna bedient. Obwohl Anna sehr freundlich war, erwidert Jan den netten Abschiedsgruß von Anna beim Verlassen der Bäckerei nicht, sondern schimpft, da ihm die Brötchen zu teuer sind.	Jan kauft Brot bei einer Bäckerei und wird von der Verkäuferin Anna bedient. Beim Rausgehen wünscht Jan Anna einen schönen Tag.	authority
83	Anna arbeitet für Jan an einem Projekt und macht ständig Überstunden. Als Anna dies anspricht, bedankt sich Jan herzlich und sichert ihr neben der Bezahlung der Überstunden eine Beförderung zu.	Anna arbeitet für Jan an einem Projekt und macht ständig Überstunden. Als Anna dies anspricht, reagiert Jan nur patzig und droht ihr mit dem Ausschluss von dem Projekt.	Anna arbeitet für Jan an einem Projekt und macht ständig Überstunden. Jan bezahlt Anna die Überstunden angemessen.	authority

Nr	positiv	negativ	neutral	foundation
84	In einer Vorlesung stellt Anna eine Nachfrage an ihren Dozenten Jan. Er beantwortet die Frage geduldig und lobt Anna dafür, eine so kluge und hilfreiche Frage gestellt zu haben.	In einer Vorlesung stellt Anna eine Nachfrage an ihren Dozenten Jan. Er antwortet daraufhin, dass er nichts dafürkönne, wenn Anna der intellektuelle Zugang zum Thema fehle und stellt sie vor der gesamten Seminargruppe bloß.	In einer Vorlesung stellt Anna eine Nachfrage an ihren Dozenten Jan. Er beantwortet ihre Frage aus Zeitmangel nicht, bietet Anna jedoch an am nächsten Tag in seine Sprechstunde zu kommen und dort über das Thema zu reden.	authority
85	Jan ist wegen Mordes an einem Kind angeklagt. Als Anna, die Richterin in dem Fall, den Gerichtssaal betritt, steht Jan trotz einer schweren Beinverletzung auf.	Jan ist wegen Mordes an einem Kind angeklagt. Als Anna, die Richterin in dem Fall, den Gerichtssaal betritt, weigert sich Jan aufzustehen.	Jan ist wegen Mordes an einem Kind angeklagt. Als Anna, die Richterin in dem Fall, den Gerichtssaal betritt, bleibt Jan sitzen, da er eine Verletzung am Bein hat und nicht stehen kann.	authority
86	Jan ist Polizist und soll eine Demonstration schützend begleiten. Persönlich verachtet er die Demonstrierenden aufgrund ihrer Forderungen und politischen Einstellung. Als die Demonstrantin Anna Jan aus Versehen beim Vorbeigehen auf den Fuß tritt, hält er seinen Kollegen zurück, der Anna mit dem Schlagstock verprügeln möchte und geht sicher, dass Anna sicher weiter demonstrieren kann.	Jan ist Polizist und soll eine Demonstration schützend begleiten. Persönlich verachtet er die Demonstrierenden aufgrund ihrer Forderungen und politischen Einstellung. Als die Demonstrantin Anna Jan aus Versehen beim Vorbeigehen auf den Fuß tritt, nimmt er seinen Schlagstock und prügelt auf sie ein.	Jan ist Polizist und soll eine Demonstration schützend begleiten. Persönlich verachtet er die Demonstrierenden aufgrund ihrer Forderungen und politischen Einstellung. Als die Demonstrantin Anna Jan aus Versehen beim Vorbeigehen auf den Fuß tritt, nimmt er ihre Entschuldigung an.	authority
87	Nachdem Jan schon seit Langem beobachtet, dass seine Mitarbeiterin Anna immer wieder mit blauen Flecken an Armen und Beinen zur Arbeit kommt, spricht er sie darauf an. Anna gesteht, zu Hause geschlagen zu werden. Jan versichert Anna, dass er ihr helfen wird.	Nachdem Jan schon seit Langem beobachtet, dass seine Mitarbeiterin Anna immer wieder mit blauen Flecken an Armen und Beinen zur Arbeit kommt, spricht er sie darauf an. Anna gesteht, zu Hause geschlagen zu werden. Jan sagt zu Anna, dass dies ihr eigenes Verschulden sei, da sie sich schlecht behandeln lasse.	Nachdem Jan schon seit Langem beobachtet, dass seine Mitarbeiterin Anna immer wieder mit blauen Flecken an Armen und Beinen zur Arbeit kommt, spricht er sie darauf an. Anna gesteht, zu Hause geschlagen zu werden. Jan rät Anna die Polizei zu benachrichtigen.	authority
88	Jan arbeitet schon länger für Anna. Als Jan für einen zu spät eingereichten Finanzbericht eine Abmahnung bekommt, nimmt er die Verantwortung auf sich, um Annas Reputation zu retten, obwohl es Annas Fehler war.	Jan arbeitet schon länger für Anna. Als Jan für einen zu spät eingereichten Finanzbericht eine Abmahnung bekommt, sagt er, dass es Annas Schuld gewesen sei, obwohl der Bericht in seiner Verantwortung lag.	Jan arbeitet schon länger für Anna. Als Jan für einen zu spät eingereichten Finanzbericht eine Abmahnung bekommt, nimmt er die Schuld nicht auf sich, da es Annas Fehler war und sie für ihre eigenen Fehler als seine Chefin gerade stehen muss.	authority

APPENDIX A

Nr	positiv	negativ	neutral	foundation
89	Jan ist Chef von einem großen Unternehmen, in dem Anna arbeitet. Jan bemerkt, dass Anna in letzter Zeit private Probleme hat und oft alkoholisiert zur Arbeit kommt. Trotzdem leistet sie gute Arbeit. Weil Anna sich als gute Mitarbeiterin über viele Jahre verdient gemacht hat, behält Jan die Alkoholprobleme für sich und bietet Anna an, ihr zu helfen.	Jan ist Chef von einem großen Unternehmen, in dem Anna arbeitet. Jan bemerkt, dass Anna in letzter Zeit private Probleme hat und oft alkoholisiert zur Arbeit kommt. Trotzdem leistet sie gute Arbeit. Weil Jan fürchtet, dass Anna auf Grund ihrer guten Arbeit seinen Posten als Chef übernehmen könnte, macht Jan Annas Alkoholprobleme unmittelbar allen bekannt.	Jan ist Chef von einem großen Unternehmen, in dem Anna arbeitet. Jan bemerkt, dass Anna in letzter Zeit private Probleme hat und oft alkoholisiert zur Arbeit kommt. Trotzdem leistet sie gute Arbeit. Kurze Zeit später bittet Anna Jan darum, ihren Urlaub für dieses Jahr nehmen zu dürfen, weil sie einen Entzug machen möchte. Jan genehmigt den Urlaub.	authority
90	Anna ist die Mannschaftskapitänin in der Fußballmannschaft von Jan. Jan und Anna sind sich über einen Spielzug uneinig. Jan lässt Anna über den Spielzug entscheiden, weil Anna der Mannschaftskapitänin ist.	Anna ist die Mannschaftskapitänin in der Fußballmannschaft von Jan. Jan und Anna sind sich über einen Spielzug uneinig. Jan entzieht Anna ihre Position als Mannschaftskapitänin, weil er es nicht mag, wenn ihm widersprochen wird.	Anna ist die Mannschaftskapitänin in der Fußballmannschaft von Jan. Jan und Anna einigen sich darauf, einen neu eingespielten Spielzug zu spielen. Auf ein Kommando von Jan beginnt Anna mit dem Spielzug.	authority
91	Jan arbeitet in der Forschungsabteilung von Anna. Anna sagt Jan, dass er seinem Praktikanten ausdrücklich sagen soll, dass er über die Ferien keine Arbeit für ihre Abteilung verrichten muss. Obwohl Jan eigentlich wollte, dass sein Praktikant über Ostern Daten für ihn auswertet, akzeptiert er die Anweisungen der Chefin Anna und gibt seinem Praktikanten über Ostern frei.	Jan arbeitet in der Forschungsabteilung von Anna. Anna sagt Jan, dass er seinem Praktikanten ausdrücklich sagen soll, dass er über die Ferien keine Arbeit für ihre Abteilung verrichten muss. Da Jan unbedingt noch Daten ausgewertet haben möchte, setzt er sich über die Anweisungen der Chefin Anna hinweg und beauftragt den Praktikanten, über Ostern Daten für ihn auszuwerten.	Jan arbeitet in der Forschungsabteilung von Anna. Anna sagt Jan, dass er seinen Praktikanten ausdrücklich sagen soll, dass er über die Feiertage keine Arbeit für ihre Abteilung verrichten muss. Jan folgt den Anweisungen der Chefin Anna.	authority
92	Jan ist Essenstester für die Gesundheitsbehörde. Jan und Anna sind gut befreundet. Jan kontrolliert Annas Restaurant. Das Fleisch hat nicht die geforderte Mindestgradzahl. Jan dokumentiert dieses Vergehen nicht, da seine Freundin Anna sonst eine hohe Strafe zahlen müsste, die sie ruinieren könnte und verwarnt Anna stattdessen.	Jan ist Essenstester für die Gesundheitsbehörde. Jan und Anna sind gut befreundet. Jan kontrolliert Annas Restaurant. Das Fleisch hat nicht die geforderte Mindestgradzahl. Da Jan neidisch auf den Erfolg von Annas Restaurant ist, gibt er die Meldung sofort an die Presse und ruiniert damit Annas Existenz.	Jan ist Essenstester für die Gesundheitsbehörde. Jan und Anna sind gut befreundet. Jan kontrolliert Annas Restaurant. Da mit dem Essen von Anna alles in Ordnung ist, muss Jan nichts dokumentieren und lobt Anna für ihr exzellentes Essen.	authority
93	Jan ist Oberarzt der chirurgischen Abteilung, in	Jan ist Oberarzt der chirurgischen Abteilung, in	Jan ist Oberarzt der chirurgischen Abteilung, in	authority

Nr	positiv	negativ	neutral	foundation
	der Anna Krankenpflegerin ist. Jan sieht, dass Anna viel zu tun hat und mit der Pflege nicht hinterherkommt, weil sie alleine auf der Station arbeitet. Obwohl Jan selber viel zu tun hat, hilft er in seiner freien Zeit Anna bei der Pflege, um sie zu entlasten.	der Anna Krankenpflegerin ist. Jan sieht, dass Anna viel zu tun hat und mit der Pflege nicht hinterherkommt, weil sie alleine auf der Station arbeitet. Jan nimmt Anna zur Seite und verwarnt sie, schneller und effizienter zu arbeiten und droht ihr ansonsten zu kündigen.	der Anna Krankenpflegerin ist. Jan sieht, dass Anna viel zu tun hat und mit der Pflege nicht hinterherkommt, weil sie alleine auf der Station arbeitet. Jan teilt Anna mit, dass er in der Krankenhausleitung um die zusätzlichen Einstellungen von Pflegepersonal bitten wird.	
94	Anna möchte beim Bürgermeister Jan für einen besseren Straßenausbau eintreten. Obwohl Jan gerade keine Sprechzeit hat, nimmt er sich die Zeit, hört sich die Wünsche von Anna an und geht darauf ein.	Anna möchte beim Bürgermeister Jan für einen besseren Straßenausbau eintreten. Jan hat aber gerade keine Sprechzeit und unterbricht Anna daher, dass sie sich nächstes Mal besser vorher über verfügbare Sprechzeiten informieren solle.	Anna möchte beim Bürgermeister Jan für einen besseren Straßenausbau eintreten. Jan hat aber gerade keine Sprechzeit und weißt Anna daher darauf hin, bei der nächsten Sprechstunde vorsprechen zu können.	authority
95	Jan ist Schneidermeister und Anna Praktikantin. Obwohl er viel zu tun hat, nimmt Jan sich die Zeit und zeigt Anna, wie eine Nähmaschine funktioniert und lässt sie ihr eigenes Projekt nähen.	Jan ist Schneidermeister und Anna Praktikantin. Weil Jan sehr viel zu tun hat, nutzt er Anna als billige Arbeitskraft aus und lässt sie hinter sich herräumen.	Jan ist Schneidermeister und Anna Praktikantin. Weil Jan sehr viel zu tun hat, lässt er Anna bei allen Projekten zusehen, damit sie etwas lernen kann.	authority
96	Anna macht ihre Ausbildung bei Jan im Unternehmen und führt ein persönliches Telefonat während der Arbeitszeit. Jan sieht es nicht gerne, wenn Leute am Arbeitsplatz persönliche Gespräche führen. Da er aber weiß, dass Anna gerade große private Probleme hat, lässt er sie telefonieren, obwohl Anna dadurch deutlich weniger produktiv arbeitet.	Anna macht ihre Ausbildung bei Jan im Unternehmen und führt ein persönliches Telefonat während der Arbeitszeit. Jan sieht es nicht gerne, wenn Leute am Arbeitsplatz persönliche Gespräche führen. Daher tadelt er Anna vor den anderen Kollegen, ihr Telefon zur Seite zu legen und zu arbeiten, obwohl Jan weiß, dass Anna momentan große private Probleme hat.	Anna macht ihre Ausbildung bei Jan im Unternehmen und führt ein persönliches Telefonat während der Arbeitszeit. Jan sieht es nicht gerne, wenn Leute am Arbeitsplatz persönliche Gespräche führen. Da er aber weiß, dass Anna momentan große private Probleme hat, bittet er Anna lediglich, die Gespräche kurz zu halten.	authority
97	Anna hat sich das Bein gebrochen, kann nicht mehr laufen und braucht daher Unterstützung im Haushalt. Ihre Haushaltshilfe Jan, der eigentlich frei hat und bereits mit Freunden verabredet ist, bleibt extra länger, um Anna im Haushalt zu unterstützen.	Anna hat sich das Bein gebrochen, kann nicht mehr laufen und braucht daher Unterstützung im Haushalt. Ihre Haushaltshilfe Jan arbeitet extra langsam und macht früher Feierabend, da er es genießt, seine Arbeitgeberin hilflos zu sehen.	Anna hat sich das Bein gebrochen, kann nicht mehr laufen und braucht daher Unterstützung im Haushalt. Ihre Haushaltshilfe Jan unterstützt sie in der Zeit bei den Dingen, die Anna nicht erledigen kann.	authority
98	Jan ist Leiter einer Abteilung, in der Anna arbeitet. Da Jan	Jan ist Leiter einer Abteilung, in der Anna	Jan ist Leiter einer Abteilung, in der Anna	authority

Nr	positiv	negativ	neutral	foundation
	weiß, dass Anna aufgrund anstehender Prüfungen sehr ausgelastet sein wird, gibt er Anna weniger Arbeit und hilft zudem selber mit aus.	arbeitet. Obwohl Jan weiß, dass Anna aufgrund anstehender Prüfungen sehr ausgelastet sein wird, berücksichtigt er dies nicht in der Arbeitsaufteilung und gibt Anna sogar mehr Aufgaben als den anderen Mitarbeitern.	arbeitet. Da Jan nicht weiß, ob Anna wegen anstehender Prüfungen zeitlich sehr ausgelastet sein wird, fragt er Anna, ob sie momentan Zeit hätte, eine Aufgabe für ihn zu erledigen.	
99	Anna studiert an der Uni und möchte ein Auslandssemester machen. Auch wenn Jan, ihr Bruder, sie nur ungern gehen lässt, weil er Angst hat, dass ihr etwas passieren könnte, unterstützt er sie finanziell und ermöglicht ihr somit das Auslandsjahr.	Anna studiert an der Uni und möchte ein Auslandssemester machen. Jan, ihr Bruder, möchte sie nicht gehen lassen, da er Angst hat, dass ihr etwas passieren könnte. Deshalb verweigert er ihr finanzielle Unterstützung, weshalb sie das Auslandsjahr nicht machen kann.	Anna studiert an der Uni und möchte ein Auslandssemester machen. Jan, ihr Bruder, hat keine Einwände gegen das Vorhaben von Anna.	authority
100	Anna möchte eine Ausbildung machen, obwohl ihr großer Bruder Jan lieber möchte, dass sie an einer Uni studiert. Jan akzeptiert die Wünsche von Anna und lässt sie selbst einen Beruf wählen, auch wenn er denkt, dass sie dabei ihr Talent vergeudet.	Anna möchte eine Ausbildung machen, obwohl ihr großer Bruder Jan lieber möchte, dass sie an der Uni studiert. Jan droht Anna an, nicht mehr mit ihr zu sprechen, wenn sie eine Ausbildung anfangen sollte.	Anna möchte eine Ausbildung machen, obwohl ihr großer Bruder Jan lieber möchte, dass sie an der Uni studiert. Jan fragt Anna, welche Ausbildung sie am liebsten machen möchte.	authority
101	Anna möchte heiraten. Jan, der Bruder von Anna, mag seinen zukünftigen Schwager nicht, aber er meint, dass Anna am besten wisse, wer zu ihr passt und freut sich über Annas Glück.	Anna möchte heiraten. Jan, der Bruder von Anna, mag seinen zukünftigen Schwager nicht und versucht daher alles, um Annas Hochzeit zu verhindern.	Anna möchte heiraten. Jan, der Bruder von Anna, mag seinen zukünftigen Schwager nicht, aber er akzeptiert die Entscheidung von Anna.	authority
102	Anna hat finanzielle Engpässe, weil sie es neben dem Medizinstudium zeitlich nicht schafft zu arbeiten. Deshalb bittet sie ihren Schwager Jan um etwas Geld. Jan hilft ihr finanziell aus, obwohl er selber momentan finanzielle Schwierigkeiten hat, da er höhere Steuern zahlen musste als gedacht.	Anna hat finanzielle Engpässe, weil sie es neben dem Medizinstudium zeitlich nicht schafft zu arbeiten. Deshalb bittet sie ihren Schwager Jan um etwas Geld. Jan verweigert ihr jegliche finanzielle Unterstützung, obwohl er gerade erst eine hohe Steuerrückzahlung erhalten hat und Anna problemlos helfen könnte.	Anna hat finanzielle Engpässe, weil sie es neben dem Medizinstudium zeitlich nicht schafft zu arbeiten. Deshalb bittet sie ihren Schwager Jan um etwas Geld. Jan sagt ihr finanzielle Hilfe zu, bis die stressige Phase vorüber ist, unter der Prämisse, dass sie es zurückzahlt, wenn sie wieder Zeit hat zu arbeiten.	authority
103	Jan ist Geschäftsleiter eines Bekleidungsgeschäfts, in dem Anna arbeitet. Am Weihnachtsmorgen ist viel Betrieb und gleichzeitig sind viele Mitarbeiter krank geworden. Damit Anna nicht	Jan ist Geschäftsleiter eines Bekleidungsgeschäfts, in dem Anna arbeitet. Am Weihnachtsmorgen ist viel Betrieb und gleichzeitig sind viele Mitarbeiter	Jan ist Geschäftsleiter eines Bekleidungsgeschäfts, in dem Anna arbeitet. Am Weihnachtsmorgen ist viel Betrieb und gleichzeitig sind viele Mitarbeiter krank geworden. Jan fragt Anna,	authority

Nr	positiv	negativ	neutral	foundation
	alleine im Laden steht und pünktlich Feierabend machen kann, hilft Jan im Laden aus.	krank geworden. Anna muss trotzdem alleine das Geschäft führen und länger arbeiten, weil Jan sich weigert auszuhelfen.	ob sie Unterstützung braucht.	
104	Jan ist Annas Gitarrenschüler. Zu Unterrichtsbeginn steht Jan zur Begrüßung trotz einer Fußverletzung auf, weil er findet, dass sich so etwas aus Respekt gehört.	Jan ist Annas Gitarrenschüler. Zu Unterrichtsbeginn steht Jan zur Begrüßung nicht auf, weil er die Geste des Respektzollens für übertrieben hält.	Jan ist Annas Gitarrenschüler. Zu Unterrichtsbeginn steht Jan zur Begrüßung auf.	authority
105	Jan ist Dozent an der Uni und muss Anna mündlich prüfen. Jan versucht Anna sehr gut auf die Prüfung vorzubereiten, damit sie die für sie bestmögliche Leistung erbringen und aus dem Kurs so viel wie möglich mitnehmen kann.	Jan ist Dozent an der Uni und muss Anna mündlich prüfen. Jan bereitet Anna jedoch nicht auf die Klausur vor, weil er es nicht als seine Aufgabe ansieht, sich neben seiner Forschung auch noch um die Prüfungsvorbereitung von Anna zu kümmern.	Jan ist Dozent an der Uni und muss Anna mündlich prüfen. Jan vermittelt Anna alle im Modulplan vorgesehenen Inhalte.	authority
106	Anna ist Jans Chefin. Sie hat ihm eine Aufgabe zugewiesen, die Jans Meinung nach im Kontext des gesamten Projektes nicht sinnvoll ist. Jan erläutert seiner Chefin Anna die Argumente dagegen, erledigt jedoch die ihm zugewiesene Aufgabe ordnungsgemäß.	Anna ist Jans Chefin. Sie hat ihm eine Aufgabe zugewiesen, die Jans Meinung nach im Kontext des gesamten Projektes nicht sinnvoll ist. Jan weigert sich, die Aufgabe zu erledigen und beleidigt Anna als inkompetent.	Anna ist Jans Chefin. Sie hat ihm eine Aufgabe zugewiesen, die Jans Meinung nach im Kontext des gesamten Projektes nicht sinnvoll ist. Jan erläutert seiner Chefin Anna, warum die Aufgabe in seinen Augen dem Projekt schadet.	authority
107	Jan ist der Leiter einer Abteilung an der Universität. Er bekommt zu Ohren, dass seine Mitarbeiterin Anna sich sehr unwohl in der Arbeitsgruppe fühlt. Jan versucht nun, Anna besser in die Abteilung zu integrieren und plant eine Teambildungsmaßnahme.	Jan ist der Leiter einer Abteilung an der Universität. Er bekommt zu Ohren, dass seine Mitarbeiterin Anna sich sehr unwohl in der Arbeitsgruppe fühlt. Jan entlässt Anna, da sie seiner Meinung nach die gute Atmosphäre in der Abteilung stört.	Jan ist der Leiter einer Abteilung an der Universität. Er bekommt zu Ohren, dass seine Mitarbeiterin Anna sich sehr unwohl in der Arbeitsgruppe fühlt. Jan fragt Anna, ob sie Zeit für ein Gespräch hätte, um mit ihm darüber zu sprechen.	authority
108	Nachdem Jan nun schon seit Längerem sieht, wie engagiert und gewissenhaft Anna sich um das aktuelle Arbeitsprojekt kümmert, beschließt er, Anna als Mitarbeiterin des Monats auszuzeichnen und einen zusätzlichen Urlaub zu genehmigen.	Nachdem Jan nun schon seit Längerem sieht, wie engagiert und gewissenhaft Anna sich um das aktuelle Arbeitsprojekt kümmert, beschließt er, ihr noch mehr Arbeit zu geben, um zu testen, wie belastungsfähig sie ist.	Nachdem Jan nun schon seit Längerem sieht, wie engagiert und gewissenhaft Anna sich um das aktuelle Arbeitsprojekt kümmert, beschließt er, Anna nicht noch zusätzliche Arbeit übers Wochenende zu geben.	authority
109	Jan sitzt in einem Café und trinkt gemütlich einen Kaffee. Nachdem er	Jan sitzt in einem Café und trinkt gemütlich einen Kaffee. Nachdem er	Jan sitzt in einem Café und trinkt gemütlich einen Kaffee. Nachdem er	authority

APPENDIX A

Nr	positiv	negativ	neutral	foundation
	ausgetrunken hat, bittet er die Kellnerin Anna um die Rechnung. Da sehr viel Betrieb ist, dauert es ein paar Minuten, bis Anna die Rechnung bringen kann. Jan gibt Anna ein großzügiges Trinkgeld, da er sieht, wie viel sie zu tun hat.	ausgetrunken hat, bittet er die Kellnerin Anna um die Rechnung. Da sehr viel Betrieb ist, dauert es ein paar Minuten, bis Anna die Rechnung bringen kann. Jan beschimpft Anna lautstark als inkompetent und verlässt das Café, ohne Trinkgeld zu geben.	ausgetrunken hat, bittet er die Kellnerin Anna um die Rechnung. Da sehr viel Betrieb ist, dauert es ein paar Minuten, bis Anna die Rechnung bringen kann. Nachdem Jan bezahlt hat, bedankt er sich und verlässt das Café.	
110	Anna ist Jans Angestellte in einer Kanzlei. Anna arbeitet aktuell an einem wichtigen Fall. Da Annas Bruder kürzlich verstorben ist, fragt sie Jan, ob sie sich zwei Tage freinehmen könne, um zu dessen Beerdigung zu gehen. Jan gibt Anna eine ganze Woche bezahlten Urlaub, damit sie sich nach der Beerdigung noch etwas erholen und Zeit mit ihrer Familie verbringen kann und übernimmt solange Annas Arbeit.	Anna ist Jans Angestellte in einer Kanzlei. Anna arbeitet aktuell an einem wichtigen Fall. Da Annas Bruder kürzlich verstorben ist, fragt sie Jan, ob sie sich zwei Tage freinehmen könne, um zu dessen Beerdigung zu gehen. Jan lehnt Annas Anfrage ab und droht ihr mit einer Kündigung, wenn sie dennoch fahren sollte, da sie ihre Prioritäten nicht auf die Arbeit lege und demnach in der Kanzlei fehl am Platz sei.	Anna ist Jans Angestellte in einer Kanzlei. Anna arbeitet aktuell an einem wichtigen Fall. Da Annas Bruder kürzlich verstorben ist, fragt sie Jan, ob sie sich zwei Tage freinehmen könne, um zu dessen Beerdigung zu gehen. Jan genehmigt ihr den Urlaub, unter der Bedingung, dass sie die Arbeit der verlorenen Tage nachholen müsse.	authority
111	Jan ist Annas Chef. Es ist die Regel, dass Anna nach jeder Abteilungssitzung ein Protokoll verfasst und an jeden Mitarbeiter der Abteilung sendet. Da Anna aktuell sehr viel zu tun hat, bietet Jan ihr an, dass er diese Woche das Protokoll für sie schreiben könne, um sie zu entlasten.	Jan ist Annas Chef. Es ist die Regel, dass Anna nach jeder Abteilungssitzung ein Protokoll verfasst und an jeden Mitarbeiter der Abteilung sendet. Da Anna aktuell sehr viel zu tun hat, bittet sie Jan das Protokoll für sie zu schreiben. Jan lehnt Annas Bitte vehement ab, da es nicht zu seinen Aufgaben als Chef gehören würde und er Wichtigeres zu tun hätte.	Jan ist Annas Chef. Es ist die Regel, dass Anna nach jeder Abteilungssitzung ein Protokoll verfasst und an jeden Mitarbeiter der Abteilung sendet. Da Anna aktuell sehr viel zu tun hat, schlägt Jan vor, dass diese Woche jemand anderes, der weniger zu tun hat, das Protokoll anstelle von Anna schreiben solle.	authority
112	Nachdem Anna jahrelang in Berlin gearbeitet hat, wurde sie auf eigene Anfrage an den Standort in München versetzt. Heute ist ihr erster Arbeitstag. Als sie in der Firma ankommt, heißt sie ihr neuer Chef Jan herzlich willkommen, stellt ihr die gesamte Abteilung vor und zeigt ihr ihren Arbeitsplatz.	Nachdem Anna jahrelang in Berlin gearbeitet hat, wurde sie auf eigene Anfrage an den Standort in München versetzt. Heute ist ihr erster Arbeitstag. Als sie in der Firma ankommt, erteilt ihr neuer Chef Jan ihr sofort einen Arbeitsauftrag, ohne sie in die Abteilung einzuarbeiten.	Nachdem Anna jahrelang in Berlin gearbeitet hat, wurde sie auf eigene Anfrage an den Standort in München versetzt. Heute ist ihr erster Arbeitstag. Als sie in der Firma ankommt, zeigt ihr neuer Chef Jan ihr ihren Arbeitsplatz.	authority
113	Jan hat bei Anna ein Beratungsgespräch bei der Bank wegen eines Kredits. Obwohl Anna die Kreditanfrage von Jan auf unhöfliche Art zurückweist,	Jan hat bei Anna ein Beratungsgespräch bei der Bank wegen eines Kredits. Als Anna seine Kreditanfrage ablehnt, sagt er, dass er nicht von einer	Jan hat bei Anna ein Beratungsgespräch bei der Bank wegen eines Kredits. Als Anna seine Kreditanfrage ablehnt,	authority

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Nr	positiv	negativ	neutral	foundation
	bedankt sich Jan und wünscht ihr noch einen schönen Tag.	Idiotin beraten werden möchte und fordert, eine andere Sachbearbeiterin zugeteilt zu bekommen.	verabschiedet sich Jan und verlässt die Bank.	
114	Jan absolviert ein Praktikum bei Anna. Als Anna Jan eine einführende Erklärung der Arbeitsabläufe geben möchte, erhält Jan einen wichtigen Anruf. Aus Respekt zu Anna nimmt er den Anruf nicht entgegen und ruft eine halbe Stunde später in der Pause zurück.	Jan absolviert ein Praktikum bei Anna. Als Anna Jan eine einführende Erklärung der Arbeitsabläufe geben möchte, schreibt Jan SMS und unterbricht Anna, um einen persönlichen Telefonanruf entgegenzunehmen.	Jan absolviert ein Praktikum bei Anna. Als Anna Jan eine einführende Erklärung der Arbeitsabläufe geben möchte, erhält Jan einen Anruf. Jan fragt Anna, ob er den Anruf annehmen dürfe, da es der behandelnde Arzt seiner erkrankten Mutter sei, die heute operiert wurde.	authority
115	Als Anna zu Hause die Schuhe auspackt, die sie für die Beerdigung ihres Großvaters gekauft hat, bemerkt Jan, dass er es gut und respektvoll findet, dass Anna Wert darauflegt, gut gekleidet zur Beerdigung zu gehen.	Als Anna zu Hause die Schuhe auspackt, die sie für die Beerdigung ihres Großvaters gekauft hat, bemerkt Jan, wie lächerlich er es findet, dass Anna für ihren toten Großvater Geld ausgebe und sich verkleide.	Als Anna zu Hause die Schuhe auspackt, die sie für die Beerdigung ihres Großvaters gekauft hat, bemerkt Jan, dass seine Schwester die gleichen Schuhe besitzt wie Anna.	authority
116	Jan hatte einen Termin in der Bank. Auf der Treppe, die aus dem Gebäude führt, bemerkt er, dass seine Chefin Anna hinter ihm geht und ebenfalls das Gebäude verlassen möchte. Obwohl er es sehr eilig hat, da er den Bus nach Hause noch erwischen muss, hält er ihr die Tür auf, da er findet, dass sich so etwas gehört.	Jan hatte einen Termin in der Bank. Auf der Treppe, die aus dem Gebäude führt, bemerkt er, dass seine Chefin Anna hinter ihm geht und ebenfalls das Gebäude verlassen möchte. Jan hält Anna beim Verlassen des Gebäudes nicht die Tür auf, da er es sehr eilig hat und findet, dass es nicht seine Aufgabe sei, anderen die Tür aufzuhalten.	Jan hatte einen Termin in der Bank. Auf der Treppe, die aus dem Gebäude führt, bemerkt er, dass seine Chefin Anna hinter ihm geht und ebenfalls das Gebäude verlassen möchte. Da Anna direkt hinter Jan geht, hält Jan Anna die Tür auf und verlässt nach ihr das Gebäude.	authority
117	Jan ist Annas Dozent. Als Prüfungsleistung muss Anna eine Hausarbeit schreiben, an der sie gewissenhaft arbeitet und die ihr besonders gut gelingt. Jan gibt Anna eine sehr gute Note und fragt sie, ob sie bei ihm eine Doktorarbeit schreiben möchte, da er sehr beeindruckt von ihrer Arbeit sei.	Jan ist Annas Dozent. Als Prüfungsleistung muss Anna eine Hausarbeit schreiben, an der sie gewissenhaft arbeitet und die ihr besonders gut gelingt. Jan gibt Anna eine schlechte Note, weil er sie nicht mag.	Jan ist Annas Dozent. Als Prüfungsleistung muss Anna eine Hausarbeit schreiben, an der sie gewissenhaft arbeitet und die ihr besonders gut gelingt. Jan benotet Anna anhand ihrer Leistung und gibt ihr die Note, die sie für ihre Arbeit verdient hat.	authority
118	Jan lädt Anna zum Essen abends bei sich ein. Jan hatte in der Vergangenheit öfter Probleme mit Herpes. Obwohl akut keine Gefahr für eine Ansteckung besteht,	Jan lädt Anna zum Essen abends bei sich ein. Obwohl er eine offene und noch ansteckende Herpesinfektion hat, rührt er die Soße mit dem	Jan lädt Anna zum Essen abends bei sich ein. Da Jan in der Vergangenheit eine Herpesinfektion hatte, ist er beim Abschmecken	purity

Nr	positiv	negativ	neutral	foundation
	ist er bei der Zubereitung der Speisen besonders vorsichtig und kocht vor dem Essen das Besteck noch einmal ab.	gleichen Löffel, den er zum Probieren nutzt und riskiert damit, dass sich Anna ansteckt.	vorsichtig und nutzt jedes Mal eine neuen Löffel.	
119	Jan hat ein Date mit Anna. Als Jan erfährt, dass Anna bereits verheiratet war und Kinder hat, drückt er ihr seine Bewunderung dafür aus, dass sie alleinerziehend ist und dazu noch arbeitet. Er bietet ihr seine Unterstützung an und sagt, dass er ihre Kinder gerne kennenlernen würde.	Jan hat ein Date mit Anna. Als Jan erfährt, dass Anna bereits verheiratet war und Kinder hat, bricht er das Date sofort ab und lässt Anna sitzen. Er kann sich nicht vorstellen, wie man eine Ehe aufgeben kann, wenn man Kinder hat.	Jan hat ein Date mit Anna. Als Jan erfährt, dass Anna bereits verheiratet war und Kinder hat, fragt er sie, wie alt ihre Kinder sind.	purity
120	Als Jan mit seinem Vater über dessen Vergangenheit spricht, beichtet er ihm, dass Jan noch eine Halbschwester hat, die Anna heißt. Jan macht Anna ausfindig und lädt sie ein, bei ihnen zu wohnen, da Anna keine eigene Familie mehr hat.	Als Jan mit seinem Vater über dessen Vergangenheit spricht, beichtet er ihm, dass Jan noch eine Halbschwester hat, die Anna heißt. Jan macht Anna ausfindig und geht mit ihr, ohne dass sie von ihrer Verwandtschaft weiß, eine sexuelle Beziehung ein.	Als Jan mit seinem Vater über dessen Vergangenheit spricht, beichtet er ihm, dass Jan noch eine Halbschwester hat, die Anna heißt. Jan macht Anna ausfindig und trifft sich mit ihr, um sie kennen zu lernen.	purity
121	Jan ist am frühen Morgen von einer Nachtschicht auf dem Weg nach Hause, als er Anna vor einem Nachtclub in ihrem Erbrochenen liegen sieht. Er schüttelt sie, damit sie das Bewusstsein wiedererlangt und ruft einen Krankenwagen.	Jan ist am frühen Morgen von einer Nachtschicht auf dem Weg nach Hause, als er Anna vor einem Nachtclub in ihrem Erbrochenen liegen sieht. Er geht an Anna vorbei, ohne ihr zu helfen.	Jan ist am frühen Morgen von einer Nachtschicht auf dem Weg nach Hause, als er Anna vor einem Nachtclub in ihrem Erbrochenen liegen sieht. Als er neben Anna niederkniet, um ihren Puls zu fühlen, kommen bereits zwei Sanitäter, die übernehmen.	purity
122	Anna ist Vegetarierin und fragt daher im Restaurant nach, ob ein bestimmtes Gericht vegetarisch sei. Der Koch Jan erklärt Anna, dass das Gericht Gelatine enthalte, er es aber auch gerne extra vegetarisch zubereiten könne.	Anna ist Vegetarierin und fragt daher im Restaurant nach, ob ein bestimmtes Gericht vegetarisch sei. Der Koch Jan weiß, dass das Gericht Gelatine enthält, behauptet aber, das Gericht sei vegetarisch.	Anna ist Vegetarierin und fragt daher im Restaurant nach, ob ein bestimmtes Gericht vegetarisch sei. Der Koch Jan denkt fälschlicher Weise, dass das Gericht vegetarisch sei, obwohl Gelatine enthalten ist und gibt Anna somit aus Versehen eine falsche Information.	purity
123	Jan und Anna haben sich auf einer Party kennengelernt. Nach einigen Cocktails fragt Jan Anna, ob sie noch mit zu ihm kommen möchte. Jan organisiert Kondome und besteht auf Verhütung, um eine Übertragung von Krankheiten zu verhindern,	Jan und Anna haben sich auf einer Party kennengelernt. Nach einigen Cocktails fragt Jan Anna, ob sie noch mit zu ihm kommen möchte. Sie schlafen miteinander ohne mit Kondom zu verhüten, obwohl Jan weiß, dass er HIV positiv ist.	Jan und Anna haben sich auf einer Party kennengelernt. Nach einigen Cocktails fragt Jan Anna, ob sie noch mit zu ihm kommen möchte. Sie schlafen miteinander und verhüten mit einem Kondom.	purity

Nr	positiv	negativ	neutral	foundation
	bevor sie miteinander schlafen.			
124	Anna reitet gerne in ihrer Freizeit und überlegt sich, ein eigenes Pferd anzuschaffen. Am Abend isst sie mit Jan gemeinsam Abendbrot. Jan bietet Anna ein Stück Salami an. Als Anna die Salami essen möchte hält Jan Anna zurück, weil ihm eingefallen ist, dass in der Salami evtl. Pferdefleisch enthalten sein könnte.	Anna reitet gerne in ihrer Freizeit und überlegt sich, ein eigenes Pferd anzuschaffen. Am Abend isst sie mit Jan gemeinsam Abendbrot. Jan bietet Anna ein Stück Salami an. Nachdem sie es gegessen hat, sagt er ihr, dass es sich um Pferdesalami gehandelt hat.	Anna reitet gerne in ihrer Freizeit und überlegt sich, ein eigenes Pferd anzuschaffen. Am Abend isst sie mit Jan gemeinsam Abendbrot. Jan bietet Anna ein Stück Salami an.	purity
125	Alle im Freundeskreis wissen, dass Anna auf Erdnüsse hochallergisch reagiert. Jan hat für eine Geburtstagsfeier Kekse gekauft, in denen Erdnüsse enthalten sind. Jan hat extra zusätzlich noch andere Kekse ohne Erdnüsse für Anna besorgt, damit sie zum Kaffee auch Kekse essen kann.	Alle im Freundeskreis wissen, dass Anna auf Erdnüsse hochallergisch reagiert. Jan hat für eine Geburtstagsfeier Kekse gekauft, in denen Erdnüsse enthalten sind. Auf der Feier sagt Jan Anna, dass keine Erdnüsse in den Keksen enthalten wären, weil er sie nicht leiden kann.	Alle im Freundeskreis wissen, dass Anna auf Erdnüsse hochallergisch reagiert. Jan hat für eine Geburtstagsfeier Kekse gekauft, in denen Spuren von Erdnüssen enthalten sein können. Auf der Feier erwähnt er dies nicht, weil er es auf der Inhaltsangabe überlesen hat.	purity
126	Anna und Jan wollen gemeinsam eine Lesung besuchen. Kurz nachdem beide von Annas Zuhause aufgebrochen sind, bemerkt sie, dass sie einen sichtbaren Fleck auf dem Pullover hat. Obwohl beide bereits spät dran sind, schlägt Jan vor, noch einmal umzukehren, da er sieht, dass sich Anna sehr unwohl fühlt.	Anna und Jan wollen gemeinsam eine Lesung besuchen. Kurz nachdem beide von Annas Zuhause aufgebrochen sind, bemerkt sie, dass sie einen sichtbaren Fleck auf dem Pullover hat. Jan verdreht die Augen und sagt, dass er sich nicht neben Anna setzen will, da es ihm peinlich ist, wie sie aussieht.	Anna und Jan wollen gemeinsam eine Lesung besuchen. Kurz nachdem beide von Annas Zuhause aufgebrochen sind, bemerkt sie, dass Sie einen sichtbaren Fleck auf dem Pullover hat. Da Jan noch einen Pullover im Auto liegen hat, der Anna passt, bietet er ihr an, einfach diesen Pullover anzuziehen.	purity
127	Jan sieht die Geflüchtete Anna auf einer Parkbank sitzen. Jan gibt Anna Geld und kauft ihr etwas zu Essen, weil er findet, dass geflüchteten Menschen geholfen werden sollte.	Jan sieht die Geflüchtete Anna auf einer Parkbank sitzen. Jan beschimpft Anna, dass sie zurück in ihr eigenes Land gehen solle.	Jan sieht die Geflüchtete Anna auf einer Parkbank sitzen und lächelt sie im Vorbeigehen an.	purity
128	Als Jan das Unisex-Bad im Hostel betritt, fällt ihm auf, dass sich Anna in seiner Anwesenheit sehr unwohl fühlt. Jan verlässt daraufhin das Bad wieder, wartet vor der Tür bis Anna herauskommt und betritt dann erst das Bad.	Als Jan das Unisex-Bad im Hostel betritt, fällt ihm auf, dass sich Anna in seiner Anwesenheit sehr unwohl fühlt. Er bleibt jedoch weiterhin im Bad und duscht, da Anna Jans Meinung nach nicht in einem Unisex-Hostel wohnen sollte, wenn sie sich durch die	Als Jan das Unisex-Bad im Hostel betritt, fällt ihm auf, dass sich Anna in seiner Anwesenheit sehr unwohl fühlt. Jan verlässt das Bad, da er sein Duschgel im Schlafsaal hat liegen lassen.	purity

Nr	positiv	negativ	neutral	foundation
		Anwesenheit eines Mannes gestört fühlt.		
129	Jan und Anna wollen abends zusammen Essen bestellen. Jan ruft beim Lieferservice an, um die Bestellung für beide aufzugeben. Er weiß, dass Anna keine Zwiebeln verträgt und bestellt daher für Anna extra ein Gericht ohne Zwiebeln.	Jan und Anna wollen abends zusammen Essen bestellen. Jan ruft beim Lieferservice an, um die Bestellung für beide aufzugeben. Obwohl er weiß, dass Anna keine Zwiebeln verträgt, bestellt er für sie extra ein Gericht mit Zwiebeln.	Jan und Anna wollen abends zusammen Essen bestellen. Jan ruft beim Lieferservice an, um die Bestellung für beide aufzugeben. Er weiß eigentlich, dass Anna keine Zwiebeln verträgt, vergisst bei der Aufgabe der Bestellung allerdings zu sagen, dass in Annas Gericht keine Zwiebeln enthalten sein dürfen.	purity
130	Jan gibt ein großes Essen, zu dem Anna eingeladen ist. Anna ist Veganerin. Damit auch Anna alles ohne Bedenken essen kann, bereitet Jan extra alle Speisen vegan zu.	Jan gibt ein großes Essen, zu dem Anna eingeladen ist. Anna ist Veganerin. Da Jan keine Lust hat, extra für Anna zu kochen, sagt sie Anna, dass alle Speisen vegan seien, obwohl Milch und Eier enthalten sind.	Jan gibt ein großes Essen, zu dem Anna eingeladen ist. Anna ist Veganerin. Jan lässt für jede Speise auflisten, welche Zutaten enthalten sind.	purity
131	Anna schickt Jan nach einer gemeinsamen Nacht private Nacktfotos von sich. Jan vermutet, dass Anna dies später bereuen wird und löscht sie sofort unwiderruflich von seinem Handy.	Anna schickt Jan nach einer gemeinsamen Nacht private Nacktfotos von sich. Jan stellt die Fotos ins Internet, sodass sie für jeden sichtbar sind.	Anna schickt Jan nach einer gemeinsamen Nacht private Nacktfotos von sich. Jan sieht die Nacktfotos nicht, da er am selben Tag ein neues Handy gekauft hat und nun eine neue Nummer hat. Am Tag darauf schreibt Jan Anna eine SMS.	purity
132	Jan und Anna laufen hintereinander auf dem Gehweg in Richtung Innenstadt. Anna rutscht auf der glatten Straße aus und fällt in Hundekot. Jan hilft Anna sofort aufzustehen und wäscht ihr den Hundekot aus der Hose.	Jan und Anna laufen hintereinander auf dem Gehweg in Richtung Innenstadt. Anna rutscht auf der glatten Straße aus und fällt in Hundekot. Jan lacht Anna aus und macht sich über sie lustig.	Jan und Anna laufen hintereinander auf dem Gehweg in Richtung Innenstadt. Anna rutscht auf der glatten Straße aus und fällt in Hundekot. Jan reicht Anna ein Taschentuch, um den Hundekot abzuwischen.	purity
133	Jan sieht vor seiner Haustür die Obdachlose Anna sitzen. Jan bietet Anna an, in seiner Wohnung etwas zu essen und zu duschen.	Jan sieht vor seiner Haustür die Obdachlose Anna sitzen. Jan spuckt Anna an und schreit ihr zu, dass Penner hier nichts zu suchen hätten.	Jan sieht vor seiner Haustür die Obdachlose Anna sitzen. Jan geht an Anna vorbei in seine Wohnung und grüßt sie dabei freundlich.	purity
134	Jan und Anna sind zusammen auf einer Party. Sie tanzen die gesamte Nacht zusammen durch. Jan spendiert Anna ein Getränk, weil Anna großen Durst vom Tanzen hat.	Jan und Anna sind zusammen auf einer Party. Sie tanzen die gesamte Nacht zusammen durch. Jan geht danach mit Anna nach Hause und belästigt sie sexuell.	Jan und Anna sind zusammen auf einer Party. Sie tanzen die gesamte Nacht zusammen durch. Jan gibt Anna in einer Tanzpause etwas Wasser zu trinken.	purity

Nr	positiv	negativ	neutral	foundation
135	Jan und Anna sind seit einiger Zeit in einer Beziehung. Anna möchte aufgrund ihrer christlichen Überzeugung keinen Sex vor der Ehe. Obwohl Jan die religiösen Werte von Anna nicht teilt, akzeptiert er dies und verzichtet ihr zu Liebe auf jegliche sexuelle Handlung.	Jan und Anna sind seit einiger Zeit in einer Beziehung. Anna möchte aufgrund ihrer christlichen Überzeugung keinen Sex vor der Ehe. Jan gibt vor, Annas Überzeugungen zu teilen, schläft aber hinter ihrem Rücken mit anderen Frauen.	Jan und Anna sind seit einiger Zeit in einer Beziehung. Anna möchte aufgrund ihrer christlichen Überzeugung keinen Sex vor der Ehe. Jan versteht Annas moralische Überzeugungen.	purity
136	Jan und Anna essen gemeinsam zu Abend. Anna ist Muslimin und isst auf Grund ihres Glaubens kein Schweinefleisch. Jan mag Schweinefleisch zwar sehr, kocht aber aus Rücksicht auf Anna extra ein Essen ohne Schweinefleisch.	Jan und Anna essen gemeinsam zu Abend. Anna ist Muslimin und isst auf Grund ihres Glaubens kein Schweinefleisch. Jan möchte Schweinefleisch essen. Daher gibt Jan vor, dass im Essen Rinder- und nicht Schweinefleisch enthalten sei.	Jan und Anna essen gemeinsam zu Abend. Anna ist Muslimin und isst auf Grund ihres Glaubens kein Schweinefleisch. Jan mag Schweinefleisch nicht und kocht daher für Anna ein Gericht mit Hühnchen.	purity
137	Anna gehört dem jüdischen Glauben an und isst daher nur koschere Speisen. Jan hat Anna zum Essen eingeladen und dafür extra gelernt, wie man koscher kocht.	Anna gehört dem jüdischen Glauben an und isst daher nur koschere Speisen. Jan hat Anna zum Essen eingeladen. Jan hatte keine Lust extra koscheres Essen zu kochen und behauptet daher einfach, das Essen sei koscher.	Anna gehört dem jüdischen Glauben an und isst daher nur koscheres Essen. Jan hat Anna zum Essen eingeladen und koscher gekocht. Da Jan sich sehr für andere Kulturen und Religionen interessiert, hat er kürzlich einen Kochkurs für koscheres Essen belegt und kann daher problemlos für Anna kochen.	purity
138	Jan arbeitet in einer Käserei, in der handgemachter Käse hergestellt wird. Zurzeit hilft auch Anna, die eine Lernbehinderung hat, in der Abteilung mit. In der Käserei müssen strenge Hygienevorschriften beachtet werden. Jan achtet besonders darauf, dass Anna alle Hygienevorschriften einhält.	Jan arbeitet in einer Käserei, in der handgemachter Käse hergestellt wird. Zurzeit hilft auch Anna, die eine Lernbehinderung hat, in der Abteilung mit. In der Käserei müssen strenge Hygienevorschriften beachtet werden. Weil eine mögliche Kontaminierung des Käses sowieso nicht auf ihn zurückgeführt werden kann, richtet Jan kein besonderes Auge auf Anna.	Jan arbeitet in einer Käserei, in der handgemachter Käse hergestellt wird. Zurzeit hilft auch Anna in der Abteilung mit. In der Käserei müssen strenge Hygienevorschriften beachtet werden. Anna ist die Hygienebeauftrage des Unternehmens, deshalb muss Jan bei Anna nicht sonderlich auf die Einhaltung von Hygienevorschriften achten.	purity
139	Jan ist der Besitzer eines Schwimmbads. Anna ist obdachlos und hat keine Dusche. Abends, als alle Leute gegangen sind, lässt Jan Anna kostenlos im Schwimmbad duschen.	Jan ist der Besitzer eines Schwimmbads. Anna ist obdachlos und hat keine Dusche. Abends, als alle Leute gegangen sind, fragt Anna Jan, ob sie im Schwimmbad duschen könnte. Jan scheucht Anna	Jan ist der Besitzer eines Schwimmbads. Anna ist obdachlos und hat keine Dusche. Abends, als alle Leute gegangen sind, fragt Anna Jan, ob sie im Schwimmbad duschen könnte. Jan erklärt Anna,	purity

Nr	positiv	negativ	neutral	foundation
		weg und beschimpft sie als widerliche Pennerin.	dass das gegen die Vorschriften verstößt.	
140	Jan liebt es, nackt baden zu gehen. Der befreundeten Anna ist diese Situation allerdings deutlich unangenehm. Aus diesem Grund geht Jan mit Anna immer in Badesachen baden.	Jan liebt es, nackt baden zu gehen. Der befreundeten Anna ist diese Situation allerdings deutlich unangenehm. Jan achtet nicht auf die Bedürfnisse von Anna und geht trotzdem nackt im See baden.	Jan liebt es, nackt baden zu gehen. Der befreundeten Anna ist diese Situation allerdings deutlich unangenehm. Da kein FKK-Strand in der Nähe ist, geht Jan mit Anna an einen normalen Strand in Badesachen.	purity
141	Jan weiß, dass Anna eine Gluten Allergie hat und bei der Zubereitung von Essen nichts mit glutenhaltigen Produkten in Berührung kommen darf. Daher hat er extra Geschirr und Besteck für Anna gekauft, das nur für die Zubereitung glutenfreier Produkte verwendet wird.	Jan weiß, dass Anna eine Gluten Allergie hat und bei der Zubereitung von Essen nichts mit glutenhaltigen Produkten in Berührung kommen darf. Er achtet bei der Zubereitung jedoch nicht extra darauf, da er findet, dass Anna sich anstelle.	Jan weiß, dass Anna eine Gluten Allergie hat und bei der Zubereitung von Essen nichts mit glutenhaltigen Produkten in Berührung kommen darf. Jan fragt Anna, was sie an Produkten essen kann.	purity
142	Jan weiß, dass Anna eine andere politische Einstellung hat als er selbst. Jan akzeptiert die Ansichten von Anna und versucht sie zu verstehen und daneben auch seine Einstellungen verständlich zu machen.	Jan weiß, dass Anna eine andere politische Einstellung hat als er selbst. Jan akzeptiert die Ansichten von Anna nicht und sagt ihr, dass ihre Ansichten sehr dumm sind.	Jan weiß, dass Anna eine andere politische Einstellung hat als er selbst. Jan fragt Anna nach ihrer Meinung zu einem Thema bezüglich der anstehenden Landtagswahlen.	purity
143	Jan feiert gerne Partys mit viel Alkohol. Jan weiß, dass Anna keinen Alkohol trinkt, lädt sie aber trotzdem zu seinen Partys ein und kauft deshalb für sie immer extra unalkoholische Getränke.	Jan feiert gerne Partys mit viel Alkohol. Jan weiß, dass Anna keinen Alkohol trinkt, lädt Anna deshalb nicht zu seinen Partys ein, da er Leute, die keinen Alkohol trinken, für Spaßbremsen hält.	Jan feiert gerne Partys mit viel Alkohol. Jan weiß, dass Anna keinen Alkohol trinkt. Jan kauft für seine Partys immer nur alkoholische Getränke und sagt Anna, dass sie sich unalkoholische Getränke selber mitbringen soll.	purity
144	Jan ist verliebt in Anna. Jan weiß, dass Anna einen Partner hat. Jan verschweigt Anna sein Interesse, um sie nicht in eine unangenehme Situation zu bringen und ihre Beziehung zu gefährden, obwohl er auch Zuneigungen von Anna ihm gegenüber wahrnimmt.	Jan ist verliebt in Anna. Jan weiß, dass Anna einen Partner hat. Jan versucht Anna zu verführen und drängt sie dazu, ihre Beziehung zu beenden.	Jan ist verliebt in Anna. Jan weiß, dass Anna einen Partner hat. Jan teilt Anna sein Interesse mit, ohne weitere Versuche zu machen, Anna zu erobern.	purity
145	Jan ist Tourist im Libanon, wo es traditionell nicht üblich ist, sich in der Öffentlichkeit zu küssen. Jan verliebt sich dort in Anna, respektiert aber ihre Traditionen und nähert sich ihr körperlich in der	Jan ist Tourist im Libanon, wo es traditionell nicht üblich ist, sich in der Öffentlichkeit zu küssen. Jan verliebt sich dort in Anna und zeigt Anna das auch öffentlich durch	Jan ist Tourist im Libanon, in dem es traditionell nicht üblich ist, sich in der Öffentlichkeit zu küssen. Jan verliebt sich dort in Anna und gesteht ihr seine Gefühle in einem Gespräch.	purity

Nr	positiv	negativ	neutral	foundation
	Öffentlichkeit nicht an, um sie in keine unangenehme Lage zu bringen.	körperliche Annäherung, obwohl er weiß, dass er Anna damit in eine für sie unangenehme Lage bringt.		
146	Jan arbeitet in einem Pflegeheim und muss das erste Mal die Patientin Anna im Badezimmer unterstützen. Obwohl Jan das zum ersten Mal macht, lässt er sich sein Unwohlsein nicht anmerken und reinigt Anna nach dem Stuhlgang sanft und gründlich.	Jan arbeitet in einem Pflegeheim und muss das erste Mal die Patientin Anna im Badezimmer unterstützen. Jan versucht gar nicht erst sein Unwohlsein zu verbergen und reinigt Anna nach dem Stuhlgang nur oberflächlich, sodass dieser sich Entzündungen zuzieht.	Jan arbeitet in einem Pflegeheim und muss das erste Mal die Patientin Anna im Badezimmer unterstützen. Da er sich unwohl fühlt, arbeitet er effizient, um möglichst schnell fertig zu werden.	purity
147	Anna hat zu viel Alkohol getrunken und muss sich übergeben. Ihr Freund Jan sieht das und kümmert sich um sie, obwohl er bei dem Geruch von Erbrochenem würgen muss.	Anna hat zu viel Alkohol getrunken und muss sich übergeben. Ihr Freund Jan sieht das und herrscht sie an, dass sie sich zusammenreißen solle, da ihr Benehmen peinlich sei.	Anna hat sich das Bein gebrochen, kann nicht mehr laufen und braucht daher Unterstützung im Haushalt. Ihre Haushaltshilfe Jan unterstützt sie in der Zeit bei den Dingen, die Anna nicht erledigen kann.	purity
148	Anna erzählt ihrem besten Freund Jan, dass sie homosexuell ist. Jan freut sich, dass Anna mit ihm darüber redet und überlegt gemeinsam mit ihr, wie sie ihrem Schwarm am besten ihre Gefühle gestehen kann.	Anna erzählt ihrem besten Freund Jan, dass sie homosexuell ist. Jan findet Homosexualität abstoßend und sagt Anna, dass er nichts mehr mit ihr zu tun haben möchte.	Anna erzählt ihrem besten Freund Jan, dass sie homosexuell ist. Jan hört Anna aufmerksam zu.	purity
149	Anna betrinkt sich in einer Bar, in der Jan Barkeeper ist. Anna bestellt immer weiter alkoholische Getränke, obwohl sie schon sehr betrunken ist. Als Anna ein weiteres Mal Alkohol bestellen möchte sagt Jan ihr, dass sie genug getrunken hätte und er ihr keinen weiteren Alkohol geben wird. Er bestellt ihr ein Taxi und sorgt dafür, dass sie sicher nach Hause kommt.	Anna betrinkt sich in einer Bar, in der Jan Barkeeper ist. Anna bestellt immer weiter alkoholische Getränke, obwohl sie schon sehr betrunken ist. Jan freut sich über den großen Umsatz, den er an dem Abend macht und ermuntert Anna, noch mehr zu trinken, obwohl deutlich ist, dass sie nichts mehr trinken sollte.	Anna betrinkt sich einer Bar, in der Jan Barkeeper ist. Anna bestellt immer weiter alkoholische Getränke, obwohl sie schon sehr betrunken ist. Als Anna ein weiteres Mal Alkohol bestellen möchte fragt Jan sie, ob sie sicher sei, dass sie in ihrem Zustand noch mehr trinken solle.	purity
150	Anna ist erkältet. Da sie am nächsten Tag eine wichtige Prüfung schreiben muss und durch die Einnahme von Antibiotika mittlerweile nicht mehr ansteckend ist, hat sie sich in die Bibliothek gesetzt, um zu lernen. Da sie ihre Hustenbonbons vergessen hat, hustet sie ständig. Jan,	Anna ist erkältet. Da sie am nächsten Tag eine wichtige Prüfung schreiben muss und durch die Einnahme von Antibiotika mittlerweile nicht mehr ansteckend ist, hat sie sich in die Bibliothek gesetzt, um zu lernen. Da sie ihre Hustenbonbons vergessen	Anna ist erkältet. Da sie am nächsten Tag eine wichtige Prüfung schreiben muss und durch die Einnahme von Antibiotika mittlerweile nicht mehr ansteckend ist, da sie Antibiotika nimmt, hat sie sich in die Bibliothek gesetzt, um zu lernen.	purity

APPENDIX A

Nr	positiv	negativ	neutral	foundation
	der neben ihr sitzt, holt ihr einen Erkältungstee aus dem Café und schenkt ihr ein Hustenbonbon dazu.	hat, hustet sie ständig. Jan, der neben ihr sitzt, herrscht Anna an, nach Hause zu gehen, da sie ihn noch anstecken würde.	Jedoch hat sie ihre Hustenbonbons vergessen und hustet daher ständig. Jan, der neben ihr sitzt, wünscht ihr gute Besserung.	
151	Anna erzählt Jan, dass ihre Schwester in einer gleichgeschlechtlichen Ehe lebt. Jan freut sich sehr, dass Anna ihm vertraut und persönliche Dinge erzählt und fragt, ob er ihre Schwester kennen lernen könnte.	Anna erzählt Jan, dass ihre Schwester in einer gleichgeschlechtlichen Ehe lebt. Jan hat dafür kein Verständnis und bezeichnet Annas Schwester als psychisch krank.	Anna erzählt Jan, dass ihre Schwester in einer gleichgeschlechtlichen Ehe lebt. Jan fragt Anna, ob ihre Schwester und deren Partnerin Kinder haben.	purity
152	Jan und Anna sind gemeinsam auf einer Party. Jan beobachtet, dass Anna sexuell bedrängt wird. Jan greift sofort ein und hilft ihr aus dieser Situation heraus.	Jan und Anna sind gemeinsam auf einer Party. Jan beobachtet, dass Anna sexuell bedrängt wird. Jan greift jedoch nicht ein, da er findet, dass das nicht seine Angelegenheit sei und Anna sich selber wehren könne.	Jan und Anna sind gemeinsam auf einer Party. Jan beobachtet, dass Anna sexuell bedrängt wird. Gerade als Jan Anna helfen möchte, löst Anna die Situation selber, sodass Jan ihr nicht mehr helfen muss.	purity
153	Anna lebt auf der Straße und hat durch eine Hauterkrankung stark eiternde Abszesse. Jan, der Krankenpfleger ist, sieht Anna auf der Straße betteln und bietet ihr an, die Wunden zu reinigen und zu verbinden.	Anna lebt auf der Straße und hat durch eine Hauterkrankung stark eiternde Abszesse. Jan, der Krankenpfleger ist, sieht Anna auf der Straße betteln. Als Anna ihn anspricht, weist Jan sie zurück und herrscht sie an, ihn in Ruhe zu lassen, da ihr Anblick widerwärtig sei und er sich nicht anstecken wolle.	Anna lebt auf der Straße und hat durch eine Hauterkrankung stark eiternde Abszesse. Jan, der Krankenpfleger ist, sieht Anna auf der Straße betteln und sagt ihr, dass sie ihre Wunden dringend von einem Arzt behandeln lassen sollte.	purity
154	Jan hat bei sexuellen Handlungen ganz bestimmte Vorlieben und fühlt sich nur durch diese befriedigt. Dazu gehört auch Analsex. Seit einigen Monaten hat er eine sexuelle Beziehung mit Anna, die sich Analsex allerdings nicht vorstellen kann. Aus Rücksicht auf Anna verzichtet Jan auf Analsex.	Jan hat bei sexuellen Handlungen ganz bestimmte Vorlieben und fühlt sich nur durch diese befriedigt. Dazu gehört auch Analsex. Seit einigen Monaten hat er eine sexuelle Beziehung mit Anna, die sich Analsex allerdings nicht vorstellen kann. Jan findet Annas Einstellung ignorant und bezeichnet sie als verklemmt	Jan hat bei sexuellen Handlungen ganz bestimmte Vorlieben und fühlt sich nur durch diese befriedigt. Dazu gehört auch Analsex. Seit einigen Monaten hat er eine sexuelle Beziehung mit Anna, die sich Analsex allerdings nicht vorstellen kann. Jan hat Verständnis für Annas Einstellung.	purity
155	Anna und Jan sitzen zusammen in der Kneipe. Anna trinkt zu viel, kippt vom Stuhl und muss sich übergeben. Obwohl Jan von dem Geruch würgen muss,	Anna und Jan sitzen zusammen in der Kneipe. Anna trinkt zu viel, kippt vom Stuhl und muss sich übergeben. Jan verlässt ohne ein weiteres Wort die Kneipe.	Anna und Jan sitzen zusammen in der Kneipe. Anna trinkt zu viel, kippt vom Stuhl und muss sich übergeben. Jan rät Anna nach Hause zu gehen und sich auszuschlafen.	purity

Nr	positiv	negativ	neutral	foundation
	kümmert er sich um sie und wischt ihr Erbrochenes auf.			
156	Anna hat eine schwere Magen-Darm-Grippe. Da sie sehr geschwächt ist bittet sie ihren Freund Jan vorbeizukommen und ihr etwas zu kochen. Obwohl Jan große Angst hat sich anzustecken, kocht er Anna etwas zu Essen.	Anna hat eine schwere Magen-Darm-Grippe. Da sie sehr geschwächt ist bittet sie ihren Freund Jan vorbeizukommen und ihr etwas zu kochen. Jan hat jedoch zu große Angst sich anzustecken und weigert sich daher in Annas Nähe zu kommen.	Anna hat eine schwere Magen-Darm-Grippe. Da sie sehr geschwächt ist bittet sie ihren Freund Jan vorbeizukommen und ihr etwas zu kochen. Da Jan keine Zeit hat, ihr etwas Warmes zu kochen, bringt er ihr stattdessen Zwieback und Salzstangen vorbei.	purity
157	Anna besucht Jan für ein verlängertes Wochenende. Damit Anna kein Ticket für die öffentlichen Verkehrsmittel bei der Rückreise lösen muss, fährt Jan eine halbe Stunde mit ihr mit, da sie kostenlos in seiner Begleitung bis zum nächsten Bahnhof reisen kann.	Anna besucht Jan für ein verlängertes Wochenende. Als die beiden mit den öffentlichen Verkehrsmitteln fahren, lässt Jan Anna ein Ticket lösen, obwohl er sie auf seinem Job-Ticket kostenfrei mitnehmen könnte.	Anna besucht Jan für ein verlängertes Wochenende. Als sie die öffentlichen Verkehrsmittel nutzen, nimmt Jan Anna auf seinem Job-Ticket mit, da es für ihn keine Mehrkosten verursacht.	loyalty
158	Anna war auf einem Konzert und möchte nach Hause fahren. Da ihr Auto nicht anspringt, ruft Anna ihren Freund Jan an und fragt, ob er sie abholen könnte. Jan fährt daraufhin spät abends los, um Anna abzuholen, obwohl er am nächsten Morgen sehr früh aufstehen muss.	Anna war auf einem Konzert und möchte nach Hause fahren. Da ihr Auto nicht anspringt, ruft Anna ihren Freund Jan an und fragt, ob er sie abholen könnte. Obwohl Jan in der Nähe ist holt er Anna nicht ab, weil er keine Lust dazu hat.	Anna war auf einem Konzert und möchte nach Hause fahren. Da ihr Auto nicht anspringt, ruft Anna ihren Freund Jan an und fragt, ob er sie abholen könnte. Da Jan ohnehin in der Nähe ist und die Konzertstätte auf dem Heimweg liegt, nimmt er Anna mit.	loyalty
159	Jan bekommt nach einer Präsentation großes Lob für die geleistete Arbeit, die aber hauptsächlich von Anna erledigt wurde. Jan spricht das offen in der Sitzung vor seinem Chef an und zollt Anna allen gebührenden Respekt für ihre Arbeit.	Jan bekommt nach einer Präsentation großes Lob für die geleistete Arbeit, die aber hauptsächlich von Anna erledigt wurde. Jan stellt es so dar, als wäre die Arbeit sein Verdienst gewesen.	Jan bekommt nach einer Präsentation großes Lob für die geleistete Arbeit, die aber hauptsächlich von Anna erledigt wurde. Als Jan vom Chef dafür gelobt wird, alles alleine gemacht zu haben, erwähnt Jan, dass Anna ihm dabei geholfen habe.	loyalty
160	Anna und Jan wohnen zusammen in einer WG und haben sich darauf geeinigt, dass sie sich wöchentlich mit dem Ausräumen der Spülmaschine abwechseln. Jan bietet Anna an, noch eine weitere Woche den Dienst zu übernehmen, weil er weiß, dass Anna in der kommenden Woche eine wichtige Abschlussklausur schreiben muss.	Anna und Jan wohnen zusammen in einer WG und haben sich darauf geeinigt, dass sie sich wöchentlich mit dem Ausräumen der Spülmaschine abwechseln. Als Anna Jan bittet, den Dienst noch für eine weitere Woche zu übernehmen, da sie in dieser Zeit ihre Abschlussarbeit schreiben muss, weigert sich Jan.	Anna und Jan wohnen zusammen in einer WG und haben sich darauf geeinigt, dass sie sich wöchentlich mit dem Ausräumen der Spülmaschine abwechseln. Jan hält sich an die Absprache mit seiner Mitbewohnerin und räumt vor der Uni noch die volle Spülmaschine aus.	loyalty

APPENDIX A

Nr	positiv	negativ	neutral	foundation
161	Anna und Jan wohnen zusammen. Damit die Wohnung immer ordentlich und sauber ist, haben sie einen Putzplan entworfen. Da Jan mehr Zeit hat als Anna und deutlich weniger arbeiten muss, hat Jan von sich aus vorgeschlagen, mehr Aufgaben zu übernehmen als Anna.	Anna und Jan wohnen zusammen. Damit die Wohnung immer ordentlich und sauber ist, haben sie einen Putzplan entworfen. Jan hält sich nicht an den Putzplan und erledigt seine Aufgaben nicht.	Anna und Jan wohnen zusammen. Damit die Wohnung immer ordentlich und sauber ist, haben sie einen Putzplan entworfen. Jan ist mit diesem allerdings nicht zufrieden und sagt Anna, dass er ihn neu planen möchte.	loyalty
162	Anna und Jan sind für ein romantisches Abendessen verabredet. Anna hat den ganzen Abend lang gekocht und alles vorbereitet. Um ihre Dankbarkeit auszudrücken, bringt Jan Blumen für Anna mit.	Anna und Jan sind für ein romantisches Abendessen verabredet. Anna hat den ganzen Abend lang gekocht und alles vorbereitet. Jan erscheint nicht zur verabredeten Zeit und sagt erst eine halbe Stunde nach der vereinbarten Zeit ab.	Anna und Jan sind für ein romantisches Abendessen verabredet. Anna hat den ganzen Abend lang gekocht und alles vorbereitet. Jan muss länger arbeiten als geplant und sagt Anna rechtzeitig bescheid.	loyalty
163	Anna und Jan sind Freunde. Jan bietet Anna an während Annas einwöchigen Urlaubs auf ihre Katze aufzupassen, obwohl Jan dafür jeden Tag eine halbe Stunde mit dem Fahrrad zu Anna fahren muss.	Anna und Jan sind Freunde. Jan bietet Anna an während Annas einwöchigen Urlaubs auf ihre Katze aufzupassen. Während der Woche schaut Jan nicht einmal nach Annas Katze.	Anna und Jan sind Freunde. Jan bietet Anna an während Annas einwöchigen Urlaubs auf ihre Katze aufzupassen, da Annas Wohnung auf Jans Weg zur Arbeit liegt.	loyalty
164	Jan und Anna sind Freunde. Jan hat Anna versprochen, sie zu einem wichtigen Termin zu fahren, obwohl er selber kaum Zeit hat. Er holt Anna pünktlich von zuhause ab.	Jan und Anna sind Freunde. Jan hat Anna versprochen, sie zu einem wichtigen Termin zu fahren. Jan erscheint nicht zur verabredeten Zeit, weil er getrödelt hat.	Jan und Anna sind Freunde. Jan hat Anna versprochen, sie zu einem wichtigen Termin zu fahren. Jan holt Anna zu spät ab, weil er in einem langen Stau stand.	loyalty
165	Anna möchte sich Jans geräumiges Auto für den Umzug ausleihen. Zunächst sagt Jan ihr zu, bekommt aber kurzfristig Karten für ein Konzert geschenkt, das am Umzugstag stattfindet. Jan kauft extra ein Zugticket, damit Anna sein Auto für den Umzug benutzen kann.	Anna möchte sich Jans geräumiges Auto für den Umzug ausleihen. Zunächst sagt Jan ihr zu, bekommt aber kurzfristig Karten für ein Konzert geschenkt, das am Umzugstag stattfindet. Ohne Anna Bescheid zu geben, fährt Jan mit seinem Auto zum Konzert, sodass Anna den Umzug nicht machen kann.	Anna möchte sich Jans geräumiges Auto für den Umzug ausleihen. Zunächst sagt Jan ihr zu, bekommt aber kurzfristig Karten für ein Konzert geschenkt, das am Umzugstag stattfindet. Jan sagt Anna früh genug Bescheid, sodass Anna noch ein anderes Auto organisieren kann.	loyalty
166	Anna und Jan wohnen seit Beginn ihres Studiums in einer WG. Am Morgen ihrer letzten Prüfung verschläft Anna und verpasst dadurch den Bus. Jan fährt sie mit dem Auto zur Uni und nimmt	Anna und Jan wohnen seit Beginn ihres Studiums in einer WG. Am Morgen ihrer letzten Prüfung verschläft Anna und verpasst dadurch den Bus. Jan fährt mit dem Auto zur	Anna und Jan wohnen seit Beginn ihres Studiums in einer WG. Am Morgen ihrer letzten Prüfung verschläft Anna und verpasst dadurch den Bus. Jan fährt mit dem Auto zur	loyalty

Nr	positiv	negativ	neutral	foundation
	dabei seine eigene Verspätung in Kauf.	Arbeit, die auf dem Weg zur Uni liegt, nimmt Anna aber nicht mit, weil er findet, dass sie aus ihren Fehlern lernen muss.	Arbeit, die auf dem Weg zur Uni liegt und lässt Anna an der Uni raus, sodass Anna noch rechtzeitig zur Prüfung erscheint.	
167	Als Anna morgens in Eile ihr Fahrrad aus dem Keller holt, bemerkt sie einen Platten am Vorderrad. Jan leiht Anna sein Fahrrad, damit sie zum Gitarrenunterricht fahren kann, obwohl er es eigentlich selbst benutzen wollte.	Als Anna morgens in Eile ihr Fahrrad aus dem Keller holt, bemerkt sie einen Platten am Vorderrad. Anna bittet Jan ihr sein Fahrrad zu leihen, um zum Gitarrenunterricht fahren zu können, da Jan ohnehin mit dem Auto zur Arbeit fährt. Jan gibt Anna das Fahrrad nicht, weil er aus Prinzip sein Eigentum nicht verleiht.	Als Anna morgens in Eile ihr Fahrrad aus dem Keller holt, bemerkt sie einen Platten am Vorderrad. Jan leiht Anna sein Fahrrad, damit sie zum Gitarrenunterricht fahren kann, da er es an diesem Tag nicht braucht und mit dem Auto zur Arbeit fährt.	loyalty
168	Anna ist aus gesundheitlichen Gründen auf einer Diät und verzichtet weitestgehend auf Zucker. Als Anna und Jan gemeinsam essen gehen, verzichtet Jan extra auf ein Dessert, obwohl er noch Hunger hat, um Anna die Diät nicht zu erschweren.	Anna ist aus gesundheitlichen Gründen auf einer Diät und verzichtet weitestgehend auf Zucker. Als Anna und Jan gemeinsam essen gehen, bestellt er Annas Lieblingsdessert, das er dann genüsslich vor ihr isst, um ihr ihre Diät zu erschweren.	Anna ist aus gesundheitlichen Gründen auf einer Diät und verzichtet weitestgehend auf Zucker. Anna und Jan gehen gemeinsam essen. Als Anna Jan fragt, ob er noch ein Dessert essen möchte, verneint er, weil er satt ist.	loyalty
169	Jan und Anna schreiben beide am nächsten Tag gemeinsam eine Klausur in Strafrecht. Jan bietet Anna an, sie mit dem Auto mitzunehmen und fährt extra einen weiten Umweg, damit Anna nicht alleine morgens mit dem Fahrrad im Dunkeln fahren muss.	Jan und Anna schreiben beide am nächsten Tag gemeinsam eine Klausur in Strafrecht. Jan bietet Anna an, sie mit dem Auto mitzunehmen, holt sie aber nicht ab, damit Anna die Klausur nicht besteht.	Jan und Anna schreiben beide am nächsten Tag gemeinsam eine Klausur in Strafrecht. Jan bietet Anna an, sie mit dem Auto mitzunehmen, holt sie aber nicht ab, weil sein Auto nicht anspringt.	loyalty
170	Anna kauft gerade ein, als ihr von einem Dieb die Tasche entrissen wird. Jan sieht das, reagiert sofort und rennt dem Dieb hinterher. Er holt ihn ein und bringt Anna die Tasche zurück.	Anna kauft gerade ein, als ihr von einem Dieb die Tasche entrissen wird. Jan sieht das und könnte den Dieb stoppen, als er an ihm vorbeirennt, tut aber nichts, um Anna zu helfen.	Anna kauft gerade ein, als ihr von einem Dieb die Tasche entrissen wird. Jan sieht das und reagiert nicht schnell genug, als der Dieb an ihm vorbeiläuft, ruft dann aber laut, dass man den Dieb aufhalten solle.	loyalty
171	Jan und Anna benötigen beide das gleiche Medikament aus der Apotheke, das aber nur noch einmal vorhanden ist. Jan überlässt Anna das Medikament ohne zu zögern, obwohl er es selbst dringend benötigt.	Jan und Anna benötigen beide das gleiche Medikament aus der Apotheke, das aber nur noch einmal vorhanden ist. Jan besteht darauf, das Medikament zu bekommen.	Jan und Anna benötigen beide das gleiche Medikament aus der Apotheke, das aber nur noch einmal vorhanden ist. Jan überlässt Anna das Medikament, nachdem er in einer anderen Apotheke angerufen hat und in Erfahrung gebracht hat,	loyalty

Nr	positiv	negativ	neutral	foundation
			dass das Medikament noch vorrätig ist.	
172	Der Hund von Anna ist beim Spazierengehen im Wald davongelaufen. Als sie den Hund nicht wiederfinden kann, fragt sie Jan, ob er ihr bei der Suche helfen könne. Jan hilft die ganze Nacht bei der Suche nach dem Hund, obwohl er am nächsten Morgen Frühdienst im Krankenhaus hat.	Der Hund von Anna ist beim Spazierengehen im Wald davongelaufen. Als sie den Hund nicht wiederfinden kann, fragt sie Jan, ob er ihr bei der Suche helfen könne. Jan hilft Anna nicht beim Suchen, weil er keine Lust hat.	Der Hund von Anna ist beim Spazierengehen im Wald davongelaufen. Als sie den Hund nicht wiederfinden kann, fragt sie Jan, ob er ihr bei der Suche helfen könne. Jan hat keine Zeit, ihr bei der Suche zu helfen, wünscht ihr aber viel Erfolg.	loyalty
173	Jan und Anna studieren beide BWL und schreiben die gleiche Mathe-Klausur, vor der sie großen Respekt haben. Anna erkundigt sich bei Jan, ob sie sich seine Aufzeichnungen ausleihen dürfe, da sie etwas Wichtiges nicht verstanden habe. Jan kopiert Anna seine Aufzeichnungen und trifft sich mit ihr, um Anna beim Verstehen des Problems zu helfen, obwohl er selber die Zeit zum Lernen bräuchte.	Jan und Anna studieren beide BWL und schreiben die gleiche Mathe-Klausur, vor der sie großen Respekt haben. Anna erkundigt sich bei Jan, ob sie sich seine Aufzeichnungen ausleihen dürfe, da sie etwas Wichtiges nicht verstanden habe. Jan gibt Anna seine Aufzeichnungen nicht, damit er gegenüber Anna einen Vorteil in der Klausur hat.	Jan und Anna studieren beide BWL und schreiben die gleiche Mathe-Klausur, vor der sie großen Respekt haben. Anna erkundigt sich bei Jan, ob sie sich seine Aufzeichnungen ausleihen dürfe, da sie etwas Wichtiges nicht verstanden habe. Jan gibt Anna seine Aufzeichnungen und bekommt dafür Annas Aufzeichnungen einer anderen Vorlesung.	loyalty
174	Anna und Jan sind zum Abendessen in einem italienischen Restaurant verabredet, um den Beginn ihrer Ferien zu feiern. Jan bestellt für Anna mit, da sie sich wegen eines platten Fahrradreifens verspätet. Das Essen kommt jedoch, bevor Anna ankommt. Jan wartet mit dem Essen, bis Anna auch da ist, obwohl er großen Hunger hat.	Anna und Jan sind zum Abendessen in einem italienischen Restaurant verabredet, um den Beginn ihrer Ferien zu feiern. Anna verspätet sich, weil sie einen Platten hat. Jan möchte nicht länger warten, bestellt einfach für sich allein und fängt an zu essen.	Anna und Jan sind zum Abendessen in einem italienischen Restaurant verabredet, um den Beginn ihrer Ferien zu feiern. Anna verspätet sich, weil sie einen Platten hat. Jan bestellt für Anna schon einmal mit.	loyalty
175	Jan war gestern im Kino und hat sich den neuesten Blockbuster angeschaut, von dem bereits alle reden. Anna erzählt Jan, dass sie ihn unbedingt auch noch sehen möchte, aber niemanden findet, der sich den Film mit ihr ansehen möchte. Obwohl Jan den Film nicht mochte, schaut er ihn sich ein zweites Mal gemeinsam mit Anna im Kino an.	Jan war gestern im Kino und hat sich den neuesten Blockbuster angeschaut, von dem bereits alle reden. Anna erzählt Jan, dass sie ihn unbedingt auch noch sehen möchte, aber niemanden findet, der sich den Film mit ihr ansehen möchte. Jan erzählt Anna den Ausgang des Filmes, um die Spannung für Anna zu nehmen.	Jan war gestern im Kino und hat sich den neuesten Blockbuster angeschaut, von dem bereits alle reden. Anna erzählt Jan, dass sie ihn unbedingt auch noch sehen möchte, aber niemanden findet, der sich den Film mit ihr ansehen möchte. Da Jan den Film so gerne mochte und ihn ohnehin noch einmal sehen wollte, geht er mit Anna ins Kino.	loyalty
176	Jan und Anna wollen gemeinsam in den Urlaub	Jan und Anna wollen gemeinsam in den Urlaub	Jan und Anna wollen gemeinsam in den Urlaub	loyalty

APPENDIX A

Nr	positiv	negativ	neutral	foundation
	fahren. Dafür haben sie einen preislichen Rahmen festgelegt. Als Anna Jan erklärt, dass sie finanzielle Ausfälle hatte und weniger Geld für die Urlaubsplanung zur Verfügung hat als gedacht, übernimmt Jan die Differenz, weil er Anna eine Freude machen möchte.	fahren. Dafür haben sie einen preislichen Rahmen festgelegt. Als Anna Jan erklärt, dass sie finanzielle Ausfälle hatte und weniger Geld für die Urlaubsplanung zur Verfügung hat als gedacht, fährt Jan einfach mit einer anderen Freundin in den Urlaub.	fahren. Dafür haben sie einen preislichen Rahmen festgelegt. Als Anna Jan erklärt, dass sie finanzielle Ausfälle hatte und weniger Geld für die Urlaubsplanung zur Verfügung hat als gedacht, sucht Jan nach günstigeren Angeboten für die gemeinsame Reise.	
177	Jan und Anna studieren im letzten Semester Biologie an der Universität. Anna hält in einem Master-Seminar einen Vortrag zum Thema Genmanipulation. Es sind nur wenige Studierende zu dem Termin erschienen. Jan sitzt in dem Seminar und hört Anna aufmerksam bis zum Ende zu, obwohl er starke Kopfschmerzen hat und lieber nach Hause gehen würde.	Jan und Anna studieren im letzten Semester Biologie an der Universität. Anna hält in einem Master-Seminar einen Vortrag zum Thema Genmanipulation. Es sind nur wenige Studierende zu dem Termin erschienen. Jan sitzt in dem Seminar, redet die ganze Zeit laut mit seiner Nachbarin und spielt am Handy.	Jan und Anna studieren im letzten Semester Biologie an der Universität. Anna hält in einem Master-Seminar einen Vortrag zum Thema Genmanipulation. Es sind nur wenige Studierende zu dem Termin erschienen. Jan sitzt in dem Seminar, hört ihr aufmerksam zu und macht sich Notizen.	loyalty
178	Jan und Anna stehen hintereinander an einer langen Schlange an der Kasse. Jan sieht, dass Anna nur wenige Artikel in der Hand hält. Anna fragt Jan, ob er sie vorlassen könnte, weil sie es sehr eilig hat und ihren Bus noch erreichen möchte. Jan lässt Anna vor, obwohl er selbst wenig Zeit hat.	Jan und Anna stehen hintereinander an einer langen Schlange an der Kasse. Jan sieht, dass Anna nur wenige Artikel in der Hand hält. Anna fragt Jan, ob er sie vorlassen könnte, weil sie es sehr eilig hat und ihren Bus noch erreichen möchte. Jan lässt Anna nicht vor und legt die Artikel demonstrativ langsam auf das Band.	Jan und Anna stehen hintereinander an einer langen Schlange an der Kasse. Jan sieht, dass Anna nur wenige Artikel in der Hand hält. Anna fragt Jan, ob er sie vorlassen könnte, weil sie es sehr eilig hat und ihren Bus noch erreichen möchte. Jan lässt Anna vor.	loyalty
179	Anna und Jan spielen seit Jahren im selben Schachclub. Jan hat sich die Sammlerausgabe einer spannenden Serie auf Blu-ray gekauft, die erst kürzlich auf den Markt gekommen ist. Anna bittet ihn, sie sich ausleihen zu dürfen, sobald Jan sie durchgesehen hat. Jan leiht Anna die CD aus, obwohl er sie selber noch nicht angesehen hat.	Anna und Jan spielen seit Jahren im selben Schachclub. Jan hat sich die Sammlerausgabe einer spannenden Serie auf Blu-ray gekauft, die erst kürzlich auf den Markt gekommen ist. Anna bittet ihn, sie sich ausleihen zu dürfen, sobald Jan sie durchgesehen hat. Jan leiht Anna die Blu-ray CD nicht aus, obwohl sie bei ihm ungenutzt im Schrank steht.	Anna und Jan spielen seit Jahren im selben Schachclub. Jan hat sich die Sammlerausgabe einer spannenden Serie auf Blu-ray gekauft, die erst kürzlich auf den Markt gekommen ist. Anna bittet ihn, sie sich ausleihen zu dürfen, sobald Jan sie durchgesehen hat. Jan sichert es ihr zu.	loyalty
180	Jan und Anna singen gemeinsam im Kammerchor der Universität. Für die Vorbereitung des anstehenden Weihnachtskonzerts in einer großen Konzertkirche hat Jan	Jan und Anna singen gemeinsam im Kammerchor der Universität. Für die Vorbereitung des anstehenden Weihnachtskonzerts in	Jan und Anna singen gemeinsam im Kammerchor der Universität. Für die Vorbereitung des anstehenden Weihnachtskonzerts in	loyalty

Nr	positiv	negativ	neutral	foundation
	sich bereits alle Noten gekauft. Anna fragt Jan nach der Probe, ob sie sich die Noten bei ihm kopieren dürfe. Jan kopiert Anna die Noten und bringt sie ihr bei der nächsten Probe mit.	einer großen Konzertkirche hat Jan sich bereits alle Noten gekauft. Anna fragt Jan nach der Probe, ob sie sich die Noten bei ihm kopieren dürfe. Jan gibt Anna die Noten nicht, weil Jan findet, dass Anna sich die Noten genau wie er selber kaufen solle.	einer großen Konzertkirche hat Jan sich bereits alle Noten gekauft. Anna fragt Jan nach der Probe, ob sie sich die Noten kopieren dürfe. Jan leiht Anna die Noten übers Wochenende zum Kopieren, da er sie in der Zeit nicht braucht.	
181	Anna trägt eine Kiste aus dem Keller das Treppenhaus hoch. Sie hat keine Hand frei, um die Haustür zu öffnen. Jan, der auch gerade im Treppenhaus ist sieht, dass sie die Haustür nicht alleine öffnen kann und läuft schnell vor, um ihr zu helfen, öffnet ihr die Tür und hilft ihr, die Kiste bis zu ihrem Auto zu tragen.	Anna trägt eine Kiste aus dem Keller das Treppenhaus hoch. Sie hat keine Hand frei, um die Haustür zu öffnen. Jan, der auch gerade im Treppenhaus ist sieht, dass sie die Haustür nicht alleine öffnen kann. Jan zieht beim Rausgehen die Tür extra hinter sich zu.	Anna trägt eine Kiste aus dem Keller das Treppenhaus hoch. Sie hat keine Hand frei, um die Haustür zu öffnen. Jan, der auch gerade im Treppenhaus ist sieht, dass sie die Haustür nicht alleine öffnen kann. Da er auch gerade auf dem Weg nach draußen ist, hält er ihr die Tür beim Rausgehen offen.	loyalty
182	Jan und Anna sind befreundet und bewerben sich beide auf dieselbe Arbeitsstelle. Anna ist zurzeit arbeitslos und braucht dringend einen Job. Als Jan davon erfährt, dass sie sich auf dieselbe Stelle beworben haben, zieht er seine Bewerbung zurück, damit Anna die Stelle bekommt.	Jan und Anna sind befreundet und bewerben sich beide auf dieselbe Arbeitsstelle. Anna ist zurzeit arbeitslos und braucht dringend einen Job. Um bessere Chancen auf die Stelle zu haben, ruft Jan bei der Arbeitsstelle an und erzählt Lügen über Anna, um einen Vorteil gegenüber Anna bei der Bewerbung zu haben.	Jan und Anna sind befreundet und bewerben sich beide auf dieselbe Arbeitsstelle. Anna ist zurzeit arbeitslos und braucht dringend einen Job. Jan wünscht Anna viel Erfolg für ihr Bewerbungsgespräch.	loyalty
183	Anna möchte aufhören zu rauchen. Jan möchte Anna dabei unterstützen und kauft ihr extra Nikotinpflaster.	Anna möchte aufhören zu rauchen. Jan bietet Anna extra eine Zigarette an, um es ihr schwer zu machen, aufzuhören.	Anna möchte aufhören zu rauchen. Jan bietet Anna wie immer eine Zigarette an, weil er nicht weiß, dass Anna versucht aufzuhören.	loyalty
184	Jan stellt Anna zur Wahl der Gruppenleitung auf. Er verzichtet dabei auf seine eigene Kandidatur, obwohl er die Leitung gerne übernommen hätte, weil er findet, dass Anna geeigneter für den Posten ist.	Jan stellt Anna zur Wahl der Gruppenleitung auf, um sie bloßzustellen, weil er weiß, dass Anna sehr unbeliebt ist.	Jan stellt Anna zur Wahl der Gruppenleitung auf, weil er findet, dass sie gut für den Posten geeignet ist.	loyalty
185	Anna bittet Jan einen Brief für sie einzuwerfen, der wichtige Bewerbungsunterlagen enthält. Damit der Brief noch rechtzeitig bis Bewerbungsschluss ankommt, muss er mit der	Anna bittet Jan einen Brief für ihn einzuwerfen, der wichtige Bewerbungsunterlagen enthält. Damit der Brief noch rechtzeitig bis Bewerbungsschluss ankommt, muss er mit der	Anna bittet Jan einen Brief für sie einzuwerfen, der wichtige Bewerbungsunterlagen enthält. Damit der Brief noch rechtzeitig bis Bewerbungsschluss ankommt, muss er mit der	loyalty

Nr	positiv	negativ	neutral	foundation
	nächsten Leerung in 30 min verschickt werden. Jan fährt extra für Anna zum Briefkasten, weil er ein Auto hat und schneller ist als Anna, die nur ein Fahrrad besitzt.	nächsten Leerung in 30 min verschickt werden. Jan wirft den Brief in den Müll, statt ihn wie abgesprochen schnell zur Post zu bringen.	nächsten Leerung in 30 min verschickt werden. Jan wirft den Brief für Anna ein, da er auf seinem Arbeitsweg ohnehin an einem Briefkasten vorbeikommt.	
186	Anna und Jan sind befreundet. Anna ist momentan arbeitslos und bewirbt sich auf eine freie Stelle in der Firma, in der Jan arbeitet. Jan legt ein gutes Wort für Anna bei seinem Chef ein, damit Anna die Stelle bekommt.	Anna und Jan sind befreundet. Anna ist momentan arbeitslos und bewirbt sich auf eine freie Stelle in der Firma, in der Jan arbeitet. Jan macht Anna bei seinem Chef schlecht, damit Anna die Stelle nicht bekommt.	Anna und Jan sind befreundet. Anna ist momentan arbeitslos und bewirbt sich auf eine freie Stelle in der Firma, in der Jan arbeitet. Jan wünscht Anna viel Erfolg für das Bewerbungsgespräch.	loyalty
187	Anna schreibt nächste Woche eine wichtige Klausur im dritten Versuch, die darüber entscheidet, ob sie weiter studieren darf oder nicht. Jan hat die Klausur bereits im vorherigen Jahr mit Bestnote bestanden. Jan lernt eine Woche lang mit Anna und verschiebt dafür seinen Urlaub.	Anna schreibt nächste Woche eine wichtige Klausur im dritten Versuch, die darüber entscheidet, ob sie weiter studieren darf oder nicht. Jan hat die Klausur bereits im vorherigen Jahr mit Bestnote bestanden. Obwohl Jan Zeit hätte, hilft er Anna nicht beim Lernen und gibt ihr keine Tipps, weil er findet, dass sie die Klausur ohne andere Hilfe bestehen können muss.	Anna schreibt nächste Woche eine wichtige Klausur im dritten Versuch, die darüber entscheidet, ob sie weiter studieren darf oder nicht. Jan hat die Klausur bereits im vorherigen Jahr mit Bestnote bestanden und wünscht Anna viel Erfolg.	loyalty
188	Anna erzählt von ihrem Vortrag, vor dem sie sehr aufgeregt ist, da es hierbei um das Arbeitsprojekt geht, an dem sie seit Monaten gearbeitet hat. Obwohl Jan gerade selbst Stress wegen seiner Abschlussarbeit hat, hilft er Anna beim Proben ihres Vortrages.	Anna erzählt von ihrem Vortrag, vor dem sie sehr aufgeregt ist, da es hierbei um das Arbeitsprojekt geht, an dem sie seit Monaten gearbeitet hat. Jan versteckt ihre Stichpunkte für den Vortrag.	Anna erzählt Jan von ihrem Vortrag, vor dem sie sehr aufgeregt ist, da es hierbei um das Arbeitsprojekt geht, an dem sie seit Monaten gearbeitet hat. Jan sagt Anna, dass er ihren Vortrag spannend findet.	loyalty
189	Jan streitet sich mit Anna darüber, wer die Küche zu putzen hat. Jan weiß, dass Anna momentan viel Stress hat. Obwohl eigentlich Anna an der Reihe wäre, lenkt Jan ein und putzt die Küche.	Jan streitet sich mit Anna darüber, wer die Küche zu putzen hat. Jan nimmt die Lieblingstasse von Anna aus dem Regal und zerschmettert sie an der Wand, weil er mit Annas Vorschlag nicht einverstanden ist.	Jan streitet sich mit Anna darüber, wer die Küche zu putzen hat. Da beide die Küche schon eine Weile nicht mehr geputzt haben, schlägt Jan vor auszulosen, wer putzen muss.	loyalty
190	Anna und Jan schließen sich am Anfang des Semesters für die Bearbeitung eines Referats zusammen. Drei Tage vor der Präsentation beschließt Jan, dass er den Kurs schmeißen will. Trotzdem hält er das Referat gemeinsam mit Anna, da er	Anna und Jan schließen sich am Anfang des Semesters für die Bearbeitung eines Referates zusammen. Drei Tage vor der Präsentation beschließt Jan, dass er den Kurs schmeißen will und sagt Anna, dass sie das	Anna und Jan schließen sich am Anfang des Semesters für die Bearbeitung eines Referates zusammen. Drei Tage vor der Präsentation erkrankt Jan an der Grippe und gibt Anna kurzfristig	loyalty

Nr	positiv	negativ	neutral	foundation
	ihr so kurzfristig nicht absagen will.	Referat alleine machen muss.	Bescheid, dass er das Referat nicht halten kann.	
191	Anna wartet schon lange in der Schlange, um Karten für ihr Lieblingskonzert zu bekommen. Als Anna fast an der Reihe ist, bekommt der vor ihr stehende Jan die letzten verfügbaren Karten. Jan überlässt die Karten Anna, da er mitbekommen hat, dass es sich um Annas absolute Lieblingsband handelt.	Anna wartet schon lange in der Schlange, um Karten für ihr Lieblingskonzert zu bekommen. Als Anna fast an der Reihe ist, drängelt sich Jan vor und schnappt ihr die letzten Karten vor der Nase weg.	Anna wartet schon lange in der Schlange, um Karten für ihr Lieblingskonzert zu bekommen. Als Anna fast an der Reihe ist, bekommt der vor ihr stehende Jan die letzten verfügbaren Karten. Jan sagt Anna, dass es ihm leid tut und nimmt die Karten.	loyalty
192	Jan und Anna sind verheiratet und Eltern von einem gemeinsamen Kind. Die Mutter Anna steht kurz vor dem Ende ihrer Promotion. Ihr Mann Jan, der bereits eine gute Festanstellung hat, möchte die Elternzeit übernehmen, damit Anna ihre Promotion fertig stellen kann.	Jan und Anna sind verheiratet und Eltern von einem gemeinsamen Kind. Die Mutter Anna steht kurz vor dem Ende ihrer Promotion. Ihr Mann Jan, der bereits eine gute Festanstellung hat, weigert sich die Elternzeit zu übernehmen, da er lieber seine Karriere ausbauen möchte, als seine Frau bei der Promotion zu unterstützen.	Jan und Anna sind verheiratet und Eltern von einem gemeinsamen Kind. Die Mutter Anna steht kurz vor dem Ende ihrer Promotion. Ihr Mann Jan, der bereits eine gute Festanstellung hat, reduziert seine Stelle auf 50%, um Anna bei der Promotion und der Erziehung des gemeinsamen Kindes zu unterstützen.	loyalty
193	Jan ist Trainer einer Volleyballmannschaft und Anna ist seine beste Spielerin. Anna hat finanzielle Probleme und ein lukratives Angebot von einem anderen Team bekommen, in das sie deshalb gerne wechseln möchte. Jan hört ihr geduldig zu und entlässt sie früher aus dem Vertrag.	Jan ist Trainer einer Volleyballmannschaft und Anna ist seine beste Spielerin. Anna hat finanzielle Probleme und ein lukratives Angebot von einem anderen Team bekommen, in das sie deshalb gerne wechseln möchte. Jan hat kein Verständnis für Anna und beschimpft sie als Verräterin.	Jan ist Trainer einer Volleyballmannschaft und Anna ist seine beste Spielerin. Anna hat finanzielle Probleme und ein lukratives Angebot von einem anderen Team bekommen, in das sie deshalb gerne wechseln möchte. Jan hört ihr aufmerksam zu und rät ihr, sich den Wechsel noch einmal genau zu überlegen.	loyalty
194	Jan und Anna sind befreundet und haben sich beide auf dasselbe Stipendium beworben. Jan weiß, dass Anna dieses Stipendium dringend für ihre weitere Studienfinanzierung braucht. Als Jan die Zusage für das Stipendium bekommt, lehnt er es ab, damit Anna es stattdessen erhalten kann.	Jan und Anna sind befreundet und haben sich beide auf dasselbe Stipendium beworben. Jan weiß, dass Anna dieses Stipendium dringend für ihre weitere Studienfinanzierung braucht. Als Jan die Zusage für das Stipendium bekommt, nimmt er es an und sagt zu Anna, dass sie einfach nicht gut genug gewesen sei und er es mehr verdient hätte als sie.	Jan und Anna sind befreundet und haben sich beide auf dasselbe Stipendium beworben. Jan weiß, dass Anna dieses Stipendium dringend für ihre weitere Studienfinanzierung braucht. Als Jan die Zusage für das Stipendium bekommt, nimmt er es an und sagt zu Anna, dass es ihm sehr leidtue, dass sie es nicht bekommen hat.	loyalty

APPENDIX A

Nr	positiv	negativ	neutral	foundation
195	Anna und Jan arbeiten im selben Büro. Vor Ostern haben beide viel zu tun, da noch einige unerwartete Aufträge eingegangen sind. Da Anna mit ihrem Teil der Arbeit überfordert ist, hilft Jan ihr, obwohl er selber noch viel zu tun hat.	Anna und Jan arbeiten im selben Büro. Vor Ostern haben beide viel zu tun, da noch einige unerwartete Aufträge eingegangen sind. Da Anna mit ihrem Teil der Arbeit überfordert ist, bittet sie Jan um Hilfe. Jan unterstützt Anna jedoch nicht, weil er keine Lust dazu hat.	Anna und Jan arbeiten im selben Büro. Vor Ostern haben beide viel zu tun, da noch einige unerwartete Aufträge eingegangen sind. Jan fragt Anna, wie sie mit der Arbeit vorankommt.	loyalty

Table A2

Percentage of categorization for each version of all items into one of the moral foundations.

Item	Valence	Foundation	Care	Fairness	Loyalty	Authority	Purity	None
1	neg	care	54.29	40	0	0	4.29	1.43
1	neu	none	38.36	41.1	0	2.74	2.74	15.07
1	pos	care	68.75	23.75	2.5	3.75	1.25	0
2	neg	care	45.71	30	18.57	0	1.43	4.29
2	neu	none	58.9	12.33	10.96	0	1.37	16.44
2	pos	care	**68.75**	6.25	18.75	0	0	6.25
3	neg	care	35.71	38.57	20	0	1.43	4.29
3	neu	none	50.68	15.07	19.18	4.11	1.37	9.59
3	pos	care	48.75	13.75	31.25	2.5	2.5	1.25
4	neg	care	**84.51**	4.23	4.23	0	4.23	2.82
4	neu	none	94.29	2.86	0	1.43	0	1.43
4	pos	care	**100**	0	0	0	0	0
5	neg	care	**60.56**	9.86	7.04	5.63	7.04	9.86
5	neu	none	92.86	4.29	0	0	1.43	1.43
5	pos	care	**95.83**	0	0	0	1.39	2.78
6	neg	care	60.56	22.54	4.23	4.23	0	8.45
6	neu	none	47.14	12.86	4.29	0	0	35.71
6	pos	care	**100**	0	0	0	0	0
7	neg	care	**61.97**	7.04	9.86	5.63	1.41	14.08
7	neu	none	55.71	8.57	5.71	0	1.43	28.57

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Item	Valence	Foundation	Care	Fairness	Loyalty	Authority	Purity	None
7	pos	care	**83.33**	0	13.89	0	2.78	0
8	neg	care	**81.25**	8.75	1.25	0	3.75	5
8	neu	none	61.43	7.14	1.43	2.86	0	27.14
8	pos	care	**90.41**	5.48	2.74	0	1.37	0
9	neg	care	41.25	42.5	6.25	2.5	2.5	5
9	neu	none	27.14	10	1.43	2.86	0	58.57
9	pos	care	71.23	23.29	2.74	2.74	0	0
10	neg	care	46.25	38.75	2.5	2.5	5	5
10	neu	none	15.71	27.14	4.29	1.43	0	51.43
10	pos	care	63.01	28.77	4.11	1.37	1.37	1.37
11	neg	care	31.94	52.78	1.39	2.78	2.78	8.33
11	neu	none	27.94	11.76	0	2.94	0	57.35
11	pos	care	50	45.71	0	1.43	1.43	1.43
12	neg	care	**77.78**	12.5	2.78	1.39	4.17	1.39
12	neu	none	39.44	8.45	2.82	4.23	4.23	40.85
12	pos	care	**87.14**	8.57	0	2.86	1.43	0
13	neg	care	31.94	55.56	4.17	1.39	5.56	1.39
13	neu	none	35.21	19.72	2.82	1.41	2.82	38.03
13	pos	care	62.86	28.57	7.14	0	0	1.43
14	neg	care	34.72	50	5.56	2.78	5.56	1.39
14	neu	none	35.21	16.9	4.23	1.41	1.41	40.85
14	pos	care	58.57	38.57	2.86	0	0	0
15	neg	care	30.14	47.95	6.85	5.48	5.48	4.11
15	neu	none	38.75	36.25	8.75	2.5	0	13.75
15	pos	care	61.43	22.86	10	1.43	1.43	2.86
16	neg	care	36.99	43.84	1.37	6.85	6.85	4.11
16	neu	none	31.25	22.5	0	0	0	46.25
16	pos	care	57.14	35.71	4.29	0	0	2.86
17	neg	care	**75.34**	10.96	5.48	2.74	2.74	2.74
17	neu	none	72.5	13.75	3.75	1.25	0	8.75

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Item	Valence	Foundation	Care	Fairness	Loyalty	Authority	Purity	None
17	pos	care	**82.86**	15.71	0	0	0	1.43
18	neg	care	31.43	32.86	1.43	0	20	14.29
18	neu	none	11.25	10	0	1.25	1.25	**76.25**
18	pos	care	**83.82**	5.88	4.41	0	4.41	1.47
19	neg	care	51.43	22.86	11.43	2.86	0	11.43
19	neu	none	72.22	8.33	4.17	2.78	0	12.5
19	pos	care	**78.87**	2.82	8.45	2.82	0	7.04
20	neg	care	52.86	37.14	0	4.29	1.43	4.29
20	neu	none	45.83	44.44	1.39	5.56	1.39	1.39
20	pos	care	30.99	16.9	21.13	8.45	4.23	18.31
21	neg	care	50	34.29	2.86	2.86	1.43	8.57
21	neu	none	79.17	8.33	1.39	0	0	11.11
21	pos	care	**73.24**	5.63	4.23	1.41	2.82	12.68
22	neg	care	**87.14**	7.14	1.43	1.43	0	2.86
22	neu	none	78.38	8.11	2.7	8.11	0	2.7
22	pos	care	**87.5**	5	3.75	2.5	1.25	0
23	neg	care	25.71	60	8.57	1.43	0	4.29
23	neu	none	26.03	42.47	4.11	2.74	0	24.66
23	pos	care	31.25	55	3.75	0	2.5	7.5
24	neg	care	54.29	37.14	2.86	2.86	1.43	1.43
24	neu	none	60.27	35.62	1.37	0	1.37	1.37
24	pos	care	75	21.25	0	0	3.75	0
25	neg	care	**63.38**	14.08	2.82	4.23	2.82	12.68
25	neu	none	84.29	11.43	0	0	0	4.29
25	pos	care	**93.06**	1.39	0	4.17	0	1.39
26	neg	care	33.8	39.44	2.82	11.27	4.23	8.45
26	neu	none	24.29	30	4.29	0	1.43	40
26	pos	care	**70.83**	16.67	2.78	5.56	0	4.17
27	neg	care	50.7	25.35	8.45	0	5.63	9.86
27	neu	none	64.29	7.14	0	1.43	0	27.14

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Item	Valence	Foundation	Care	Fairness	Loyalty	Authority	Purity	None
27	pos	care	**94.44**	4.17	0	0	1.39	0
28	neg	care	**81.25**	8.75	3.75	1.25	5	0
28	neu	none	67.14	1.43	0	0	0	31.43
28	pos	care	**91.78**	1.37	0	2.74	0	4.11
29	neg	care	**73.75**	12.5	3.75	5	2.5	2.5
29	neu	none	20	18.57	0	0	1.43	**60**
29	pos	care	**64.38**	17.81	8.22	1.37	0	8.22
30	neg	care	**85**	5	0	1.25	5	3.75
30	neu	none	74.29	4.29	1.43	0	0	20
30	pos	care	**91.78**	4.11	4.11	0	0	0
31	neg	care	52.78	6.94	29.17	0	6.94	4.17
31	neu	none	78.87	5.63	4.23	2.82	1.41	7.04
31	pos	care	**88.57**	4.29	2.86	1.43	2.86	0
32	neg	care	43.06	20.83	30.56	0	4.17	1.39
32	neu	none	64.79	8.45	5.63	0	2.82	18.31
32	pos	care	**90**	1.43	5.71	1.43	0	1.43
33	neg	care	58.33	6.94	23.61	1.39	1.39	8.33
33	neu	none	42.25	5.63	5.63	5.63	0	40.85
33	pos	care	**87.14**	2.86	8.57	0	0	1.43
34	neg	care	**73.97**	10.96	1.37	4.11	8.22	1.37
34	neu	none	53.75	8.75	0	0	2.5	35
34	pos	care	**97.14**	0	0	0	1.43	1.43
35	neg	care	47.95	41.1	1.37	4.11	4.11	1.37
35	neu	none	17.5	6.25	0	2.5	1.25	**72.5**
35	pos	care	**75.71**	20	1.43	2.86	0	0
36	neg	care	63.01	5.48	20.55	2.74	5.48	2.74
36	neu	none	85	2.5	3.75	1.25	0	7.5
36	pos	care	**84.29**	0	14.29	0	0	1.43
37	neg	care	**82.86**	11.43	1.43	0	2.86	1.43
37	neu	none	30.56	1.39	0	0	0	68.06

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Item	Valence	Foundation	Care	Fairness	Loyalty	Authority	Purity	None
37	pos	care	**77.46**	12.68	0	2.82	2.82	4.23
38	neg	care	**74.29**	5.71	17.14	0	0	2.86
38	neu	none	34.72	2.78	5.56	2.78	2.78	51.39
38	pos	care	**91.55**	0	4.23	0	0	4.23
39	neg	care	41.43	34.29	15.71	1.43	0	7.14
39	neu	none	12.5	4.17	5.56	0	0	**77.78**
39	pos	care	49.3	18.31	16.9	7.04	0	8.45
40	neg	fairness	1.43	34.29	47.14	11.43	1.43	4.29
40	neu	none	16.44	10.96	5.48	0	0	**67.12**
40	pos	fairness	28.75	13.75	17.5	20	0	20
41	neg	fairness	1.43	**74.29**	18.57	2.86	1.43	1.43
41	neu	none	10.96	43.84	9.59	2.74	0	32.88
41	pos	fairness	15	53.75	8.75	3.75	1.25	17.5
42	neg	fairness	11.43	**68.57**	14.29	1.43	2.86	1.43
42	neu	none	4.11	8.22	4.11	0	0	**83.56**
42	pos	fairness	26.25	57.5	11.25	1.25	1.25	2.5
43	neg	fairness	8.45	**64.79**	15.49	1.41	5.63	4.23
43	neu	none	24.66	57.53	13.7	0	1.37	2.74
43	pos	fairness	29.17	56.94	11.11	1.39	1.39	0
44	neg	fairness	2.82	**66.2**	19.72	2.82	2.82	5.63
44	neu	none	1.43	5.71	2.86	0	0	**90**
44	pos	fairness	5.56	**75**	9.72	6.94	1.39	1.39
45	neg	fairness	9.86	56.34	26.76	1.41	0	5.63
45	neu	none	1.43	67.14	21.43	1.43	0	8.57
45	pos	fairness	70.83	12.5	12.5	0	0	4.17
46	neg	fairness	73.24	14.08	5.63	0	1.41	5.63
46	neu	none	77.14	11.43	0	1.43	0	10
46	pos	fairness	90.28	9.72	0	0	0	0
47	neg	fairness	33.75	32.5	21.25	3.75	1.25	7.5
47	neu	none	71.43	21.43	4.29	0	1.43	1.43

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Item	Valence	Foundation	Care	Fairness	Loyalty	Authority	Purity	None
47	pos	fairness	69.86	17.81	8.22	1.37	2.74	0
48	neg	fairness	30	42.5	15	1.25	2.5	8.75
48	neu	none	38.57	27.14	12.86	0	0	21.43
48	pos	fairness	78.08	10.96	2.74	0	2.74	5.48
49	neg	fairness	40	28.75	11.25	2.5	5	12.5
49	neu	none	55.71	30	1.43	1.43	0	11.43
49	pos	fairness	67.12	26.03	5.48	0	1.37	0
50	neg	fairness	27.78	40.28	2.78	15.28	2.78	11.11
50	neu	none	55.88	17.65	1.47	8.82	0	16.18
50	pos	fairness	31.51	15.07	2.74	28.77	2.74	19.18
51	neg	fairness	0	**70.83**	13.89	9.72	2.78	2.78
51	neu	none	1.41	11.27	2.82	4.23	1.41	**78.87**
51	pos	fairness	8.57	**68.57**	1.43	4.29	1.43	15.71
52	neg	fairness	1.39	30.56	56.94	6.94	2.78	1.39
52	neu	none	0	25.35	33.8	7.04	1.41	32.39
52	pos	fairness	77.14	7.14	8.57	1.43	0	5.71
53	neg	fairness	22.22	58.33	11.11	0	0	8.33
53	neu	none	49.3	12.68	5.63	4.23	0	28.17
53	pos	fairness	81.43	8.57	4.29	1.43	1.43	2.86
54	neg	fairness	1.37	71.23	21.92	1.37	2.74	1.37
54	neu	none	11.25	62.5	13.75	1.25	2.5	8.75
54	pos	fairness	10	57.14	17.14	5.71	1.43	8.57
55	neg	fairness	8.22	53.42	30.14	1.37	2.74	4.11
55	neu	none	50	33.75	3.75	1.25	3.75	7.5
55	pos	fairness	82.86	7.14	7.14	0	2.86	0
56	neg	fairness	10.96	57.53	28.77	2.74	0	0
56	neu	none	5	32.5	12.5	3.75	2.5	43.75
56	pos	fairness	35.71	35.71	8.57	2.86	0	17.14
57	neg	fairness	44.29	42.86	10	1.43	0	1.43
57	neu	none	9.72	4.17	0	1.39	0	**84.72**

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Item	Valence	Foundation	Care	Fairness	Loyalty	Authority	Purity	None
57	pos	fairness	56.73	25	11.54	0	0	6.73
58	neg	fairness	10	**67.14**	14.29	2.86	5.71	0
58	neu	none	55.56	37.5	2.78	1.39	1.39	1.39
58	pos	fairness	70.42	14.08	7.04	1.41	4.23	2.82
59	neg	fairness	41.43	45.71	2.86	4.29	2.86	2.86
59	neu	none	31.94	45.83	1.39	6.94	0	13.89
59	pos	fairness	54.93	21.13	2.82	5.63	2.82	12.68
60	neg	fairness	7.14	51.43	5.71	0	1.43	34.29
60	neu	none	22.22	56.94	1.39	0	1.39	18.06
60	pos	fairness	66.2	11.27	2.82	1.41	2.82	15.49
61	neg	fairness	51.4	29.91	12.15	2.8	0.93	2.8
61	neu	none	66.67	13.89	11.11	0	2.78	5.56
61	pos	fairness	67.5	11.25	12.5	2.5	0	6.25
62	neg	fairness	25.23	51.4	18.69	1.87	1.87	0.93
62	neu	none	66.67	16.67	11.11	0	0	5.56
62	pos	fairness	76.25	8.75	11.25	2.5	0	1.25
63	neg	fairness	1.43	34.29	58.57	2.86	1.43	1.43
63	neu	none	5.48	41.1	38.36	5.48	0	9.59
63	pos	fairness	2.5	42.5	35	6.25	0	13.75
64	neg	fairness	14.08	36.62	11.27	21.13	0	16.9
64	neu	none	22.86	50	10	4.29	2.86	10
64	pos	fairness	36.11	38.89	11.11	2.78	0	11.11
65	neg	fairness	15.49	49.3	21.13	5.63	1.41	7.04
65	neu	none	0	11.43	4.29	0	0	**84.29**
65	pos	fairness	36.11	6.94	4.17	1.39	0	51.39
66	neg	fairness	26.76	64.79	5.63	1.41	1.41	0
66	neu	none	1.43	7.14	1.43	0	0	**90**
66	pos	fairness	13.89	**63.89**	8.33	4.17	1.39	8.33
67	neg	fairness	22.5	62.5	5	5	1.25	3.75
67	neu	none	8.57	52.86	4.29	10	1.43	22.86

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Item	Valence	Foundation	Care	Fairness	Loyalty	Authority	Purity	None
67	pos	fairness	16.44	**71.23**	5.48	1.37	2.74	2.74
68	neg	fairness	22.5	41.25	10	8.75	3.75	13.75
68	neu	none	7.14	4.29	1.43	0	0	**87.14**
68	pos	fairness	38.36	35.62	8.22	6.85	2.74	8.22
69	neg	fairness	3.75	**73.75**	16.25	0	1.25	5
69	neu	none	30	41.43	8.57	4.29	0	15.71
69	pos	fairness	36.99	56.16	5.48	0	1.37	0
70	neg	fairness	1.39	54.17	40.28	0	2.78	1.39
70	neu	none	5.63	50.7	14.08	5.63	1.41	22.54
70	pos	fairness	7.14	57.14	24.29	2.86	0	8.57
71	neg	fairness	1.39	51.39	43.06	0	0	4.17
71	neu	none	9.86	23.94	23.94	2.82	0	39.44
71	pos	fairness	2.86	45.71	50	0	0	1.43
72	neg	fairness	8.33	**68.06**	19.44	1.39	1.39	1.39
72	neu	none	47.89	25.35	11.27	1.41	0	14.08
72	pos	fairness	40	45.71	14.29	0	0	0
73	neg	fairness	8.11	59.46	18.92	0	0	13.51
73	neu	none	30	16.25	3.75	3.75	1.25	45
73	pos	fairness	46.23	25.47	14.15	1.89	2.83	9.43
74	neg	fairness	9.59	52.05	28.77	2.74	5.48	1.37
74	neu	none	17.5	23.75	10	0	1.25	47.5
74	pos	fairness	60	15.71	18.57	2.86	0	2.86
75	neg	fairness	2.74	61.64	28.77	1.37	1.37	4.11
75	neu	none	13.75	45	8.75	0	0	32.5
75	pos	fairness	48.57	24.29	18.57	1.43	0	7.14
76	neg	fairness	0	**84.29**	7.14	1.43	2.86	4.29
76	neu	none	5.56	75	5.56	0	0	13.89
76	pos	fairness	65.79	10.53	15.79	0	0	7.89
77	neg	fairness	1.43	42.86	47.14	4.29	2.86	1.43
77	neu	none	43.06	2.78	1.39	1.39	0	51.39

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Item	Valence	Foundation	Care	Fairness	Loyalty	Authority	Purity	None
77	pos	fairness	40.85	15.49	2.82	4.23	4.23	32.39
78	neg	fairness	4.29	57.14	28.57	5.71	4.29	0
78	neu	none	4.17	2.78	4.17	2.78	0	**86.11**
78	pos	fairness	70.42	5.63	2.82	0	1.41	19.72
79	neg	authority	2.86	15.71	1.43	7.14	70	2.86
79	neu	none	4.11	27.4	1.37	6.85	10.96	49.32
79	pos	authority	2.5	7.5	1.25	13.75	53.75	21.25
80	neg	authority	5.71	31.43	1.43	12.86	0	48.57
80	neu	none	6.85	32.88	6.85	9.59	1.37	42.47
80	pos	authority	28.75	40	7.5	6.25	0	17.5
81	neg	authority	2.86	12.86	2.86	5.71	71.43	4.29
81	neu	none	6.85	20.55	2.74	6.85	53.42	9.59
81	pos	authority	5	8.75	2.5	5	72.5	6.25
82	neg	authority	8.22	58.9	2.74	12.33	1.37	16.44
82	neu	none	18.57	32.86	0	11.43	2.86	34.29
82	pos	authority	8.75	48.75	1.25	21.25	0	20
83	neg	authority	8.45	66.2	5.63	14.08	4.23	1.41
83	neu	none	4.29	61.43	8.57	10	0	15.71
83	pos	authority	4.17	62.5	12.5	9.72	1.39	9.72
84	neg	authority	5.63	61.97	2.82	16.9	7.04	5.63
84	neu	none	11.43	61.43	1.43	11.43	1.43	12.86
84	pos	authority	6.94	48.61	0	9.72	2.78	31.94
85	neg	authority	0	7.04	2.82	**80.28**	2.82	7.04
85	neu	none	1.43	2.86	0	27.14	0	68.57
85	pos	authority	1.39	0	1.39	**80.56**	0	16.67
86	neg	authority	27.5	46.25	0	18.75	6.25	1.25
86	neu	none	2.86	55.71	2.86	18.57	1.43	18.57
86	pos	authority	15.07	58.9	1.37	13.7	2.74	8.22
87	neg	authority	70	12.5	3.75	3.75	3.75	6.25
87	neu	none	88.57	8.57	0	0	1.43	1.43

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Item	Valence	Foundation	Care	Fairness	Loyalty	Authority	Purity	None
87	pos	authority	86.3	4.11	6.85	0	1.37	1.37
88	neg	authority	6.25	38.75	30	17.5	2.5	5
88	neu	none	1.43	32.86	14.29	25.71	0	25.71
88	pos	authority	38.36	13.7	28.77	10.96	1.37	6.85
89	neg	authority	15	42.5	33.75	5	1.25	2.5
89	neu	none	58.57	21.43	4.29	1.43	2.86	11.43
89	pos	authority	65.75	9.59	23.29	1.37	0	0
90	neg	authority	0	43.06	18.06	33.33	0	5.56
90	neu	none	1.41	14.08	9.86	9.86	0	**64.79**
90	pos	authority	0	7.14	1.43	**78.57**	0	12.86
91	neg	authority	1.39	31.94	5.56	59.72	1.39	0
91	neu	none	2.82	12.68	8.45	30.99	0	45.07
91	pos	authority	2.86	7.14	8.57	**70**	0	11.43
92	neg	authority	13.89	34.72	40.28	5.56	4.17	1.39
92	neu	none	8.45	23.94	12.68	1.41	0	53.52
92	pos	authority	25.71	22.86	35.71	8.57	2.86	4.29
93	neg	authority	13.7	47.95	10.96	24.66	0	2.74
93	neu	none	32.5	48.75	5	6.25	1.25	6.25
93	pos	authority	38.57	42.86	15.71	2.86	0	0
94	neg	authority	4.11	26.03	2.74	38.36	1.37	27.4
94	neu	none	2.5	15	5	23.75	0	53.75
94	pos	authority	12.86	62.86	8.57	12.86	0	2.86
95	neg	authority	10.96	58.9	5.48	15.07	1.37	8.22
95	neu	none	13.75	43.75	2.5	7.5	0	32.5
95	pos	authority	31.43	42.86	4.29	10	2.86	8.57
96	neg	authority	15.71	34.29	12.86	25.71	2.86	8.57
96	neu	none	48.75	28.75	3.75	11.25	2.5	5
96	pos	authority	61.43	20	7.14	5.71	0	5.71
97	neg	authority	35.71	35.71	12.86	12.86	2.86	0
97	neu	none	52.78	8.33	11.11	8.33	0	19.44

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Item	Valence	Foundation	Care	Fairness	Loyalty	Authority	Purity	None
97	pos	authority	76.06	4.23	12.68	1.41	1.41	4.23
98	neg	authority	15.71	65.71	11.43	4.29	0	2.86
98	neu	none	19.44	29.17	6.94	18.06	0	26.39
98	pos	authority	49.3	35.21	8.45	1.41	0	5.63
99	neg	authority	48.57	24.29	10	1.43	0	15.71
99	neu	none	4.17	13.89	6.94	0	0	**75**
99	pos	authority	74.65	2.82	15.49	1.41	2.82	2.82
100	neg	authority	32.86	40	12.86	12.86	0	1.43
100	neu	none	31.51	15.07	10.96	4.11	0	38.36
100	pos	authority	30	23.75	12.5	10	1.25	22.5
101	neg	authority	35.71	21.43	37.14	2.86	1.43	1.43
101	neu	none	31.51	21.92	26.03	4.11	0	16.44
101	pos	authority	38.75	18.75	25	3.75	1.25	12.5
102	neg	authority	52.86	8.57	18.57	0	0	20
102	neu	none	57.53	21.92	15.07	1.37	1.37	2.74
102	pos	authority	78.75	5	12.5	0	1.25	2.5
103	neg	authority	11.27	47.89	19.72	14.08	1.41	5.63
103	neu	none	34.29	41.43	12.86	2.86	1.43	7.14
103	pos	authority	23.61	55.56	11.11	4.17	1.39	4.17
104	neg	authority	0	8.45	5.63	**60.56**	5.63	19.72
104	neu	none	0	7.14	1.43	65.71	2.86	22.86
104	pos	authority	6.94	1.39	1.39	**73.61**	0	16.67
105	neg	authority	9.86	50.7	7.04	8.45	1.41	22.54
105	neu	none	10	40	8.57	2.86	0	38.57
105	pos	authority	37.5	44.44	6.94	5.56	0	5.56
106	neg	authority	3.75	26.25	7.5	56.25	1.25	5
106	neu	none	2.86	21.43	17.14	30	0	28.57
106	pos	authority	1.37	8.22	19.18	56.16	0	15.07
107	neg	authority	7.5	60	12.5	13.75	2.5	3.75
107	neu	none	55.71	32.86	2.86	4.29	1.43	2.86

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Item	Valence	Foundation	Care	Fairness	Loyalty	Authority	Purity	None
107	pos	authority	50.68	36.99	4.11	6.85	0	1.37
108	neg	authority	8.75	41.25	7.5	13.75	1.25	27.5
108	neu	none	31.43	45.71	7.14	10	0	5.71
108	pos	authority	12.33	57.53	13.7	9.59	0	6.85
109	neg	authority	6.94	70.83	1.39	12.5	4.17	4.17
109	neu	none	4.23	32.39	1.41	5.63	1.41	54.93
109	pos	authority	21.43	57.14	0	7.14	2.86	11.43
110	neg	authority	30.56	30.56	5.56	23.61	9.72	0
110	neu	none	23.94	32.39	8.45	11.27	7.04	16.9
110	pos	authority	62.86	18.57	5.71	7.14	5.71	0
111	neg	authority	4.17	34.72	6.94	40.28	0	13.89
111	neu	none	33.8	49.3	4.23	4.23	0	8.45
111	pos	authority	38.57	50	2.86	7.14	0	1.43
112	neg	authority	23.29	49.32	8.22	16.44	0	2.74
112	neu	none	8.75	30	5	18.75	0	37.5
112	pos	authority	20	45.71	5.71	17.14	0	11.43
113	neg	authority	8.22	49.32	1.37	35.62	0	5.48
113	neu	none	3.75	6.25	6.25	7.5	1.25	**75**
113	pos	authority	1.43	47.14	0	27.14	1.43	22.86
114	neg	authority	2.74	19.18	4.11	**72.6**	0	1.37
114	neu	none	18.75	8.75	2.5	23.75	0	46.25
114	pos	authority	5.71	21.43	4.29	60	1.43	7.14
115	neg	authority	31.43	22.86	10	14.29	20	1.43
115	neu	none	4.17	1.39	0	0	0	**94.44**
115	pos	authority	11.27	5.63	4.23	29.58	11.27	38.03
116	neg	authority	4.29	25.71	5.71	38.57	0	25.71
116	neu	none	11.11	20.83	2.78	58.33	0	6.94
116	pos	authority	7.04	14.08	2.82	**64.79**	4.23	7.04
117	neg	authority	11.43	71.43	10	7.14	0	0
117	neu	none	0	59.72	0	5.56	0	34.72

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Item	Valence	Foundation	Care	Fairness	Loyalty	Authority	Purity	None
117	pos	authority	14.08	30.99	7.04	14.08	0	33.8
118	neg	purity	70	7.14	2.86	1.43	11.43	7.14
118	neu	none	71.23	12.33	5.48	0	8.22	2.74
118	pos	purity	73.75	8.75	1.25	0	3.75	12.5
119	neg	purity	11.43	34.29	7.14	8.57	11.43	27.14
119	neu	none	15.07	10.96	5.48	4.11	1.37	**63.01**
119	pos	purity	48.75	26.25	7.5	6.25	1.25	10
120	neg	purity	11.43	34.29	12.86	1.43	34.29	5.71
120	neu	none	17.81	5.48	4.11	0	0	**72.6**
120	pos	purity	76.25	8.75	8.75	0	1.25	5
121	neg	purity	72.6	12.33	0	1.37	5.48	8.22
121	neu	none	78.08	9.59	0	1.37	1.37	9.59
121	pos	purity	90	5	0	2.5	1.25	1.25
122	neg	purity	9.86	49.3	14.08	5.63	15.49	5.63
122	neu	none	4.29	17.14	0	2.86	1.43	**74.29**
122	pos	purity	31.94	30.56	2.78	6.94	15.28	12.5
123	neg	purity	49.3	28.17	9.86	1.41	4.23	7.04
123	neu	none	17.14	22.86	0	0	4.29	55.71
123	pos	purity	58.33	11.11	0	1.39	9.72	19.44
124	neg	purity	19.72	30.99	16.9	5.63	12.68	14.08
124	neu	none	10	1.43	1.43	0	1.43	**85.71**
124	pos	purity	52.78	13.89	4.17	1.39	9.72	18.06
125	neg	purity	72.5	16.25	3.75	0	6.25	1.25
125	neu	none	45.71	5.71	4.29	1.43	0	42.86
125	pos	purity	78.08	15.07	1.37	1.37	2.74	1.37
126	neg	purity	13.75	20	40	3.75	11.25	11.25
126	neu	none	78.57	8.57	5.71	0	0	7.14
126	pos	purity	71.23	9.59	10.96	2.74	0	5.48
127	neg	purity	17.5	55	0	7.5	16.25	3.75
127	neu	none	24.29	30	5.71	0	1.43	38.57

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Item	Valence	Foundation	Care	Fairness	Loyalty	Authority	Purity	None
127	pos	purity	64.38	26.03	0	2.74	4.11	2.74
128	neg	purity	5	35	5	7.5	5	42.5
128	neu	none	11.27	15.49	4.23	7.04	4.23	57.75
128	pos	purity	34.25	35.62	2.74	6.85	10.96	9.59
129	neg	purity	54.17	23.61	15.28	1.39	1.39	4.17
129	neu	none	28.17	4.23	2.82	2.82	2.82	59.15
129	pos	purity	72.86	12.86	4.29	2.86	0	7.14
130	neg	purity	11.11	48.61	15.28	5.56	15.28	4.17
130	neu	none	43.66	33.8	2.82	4.23	9.86	5.63
130	pos	purity	44.29	30	12.86	2.86	7.14	2.86
131	neg	purity	26.39	27.78	36.11	4.17	4.17	1.39
131	neu	none	1.41	2.82	1.41	2.82	4.23	**87.32**
131	pos	purity	52.86	17.14	12.86	4.29	5.71	7.14
132	neg	purity	51.38	26.61	6.42	3.67	3.67	8.26
132	neu	none	77.27	22.73	0	0	0	0
132	pos	purity	88.57	4.29	4.29	0	1.43	1.43
133	neg	purity	46.58	31.51	0	1.37	16.44	4.11
133	neu	none	12.5	40	1.25	2.5	1.25	42.5
133	pos	purity	81.43	12.86	1.43	0	2.86	1.43
134	neg	purity	57.53	27.4	1.37	1.37	10.96	1.37
134	neu	none	86.25	2.5	1.25	0	0	10
134	pos	purity	80	1.43	4.29	0	0	14.29
135	neg	purity	8.22	32.88	27.4	0	30.14	1.37
135	neu	none	11.11	9.72	5.56	1.39	66.67	5.56
135	pos	purity	15.07	1.37	2.74	6.85	**69.86**	4.11
136	neg	purity	0	20	5.71	4.29	**68.57**	1.43
136	neu	none	18.06	8.33	1.39	4.17	33.33	34.72
136	pos	purity	26.76	12.68	4.23	8.45	46.48	1.41
137	neg	purity	5.71	24.29	5.71	2.86	61.43	0
137	neu	none	29.17	11.11	2.78	6.94	48.61	1.39

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Item	Valence	Foundation	Care	Fairness	Loyalty	Authority	Purity	None
137	pos	purity	33.8	9.86	8.45	7.04	39.44	1.41
138	neg	purity	24.29	25.71	10	15.71	18.57	5.71
138	neu	none	2.78	16.67	6.94	26.39	9.72	37.5
138	pos	purity	25.35	26.76	8.45	8.45	8.45	22.54
139	pos	purity	63.89	19.44	2.78	2.78	8.33	2.78
139	neg	purity	52.86	31.43	0	5.71	7.14	2.86
139	neu	none	36.99	19.18	2.74	15.07	4.11	21.92
139	pos	purity	75	22.73	0	0	2.27	0
140	pos	purity	5.56	44.44	8.33	16.67	13.89	11.11
140	neg	purity	12.86	22.86	8.57	15.71	20	20
140	neu	none	15.07	21.92	13.7	8.22	8.22	32.88
140	pos	purity	22.73	40.91	2.27	15.91	9.09	9.09
141	pos	purity	80.56	11.11	0	2.78	0	5.56
141	neg	purity	64.29	18.57	8.57	1.43	2.86	4.29
141	neu	none	80.82	10.96	0	1.37	0	6.85
141	pos	purity	84.09	9.09	2.27	4.55	0	0
142	pos	purity	2.78	72.22	0	0	2.78	22.22
142	neg	purity	0	67.61	4.23	12.68	2.82	12.68
142	neu	none	0	8.57	2.86	1.43	1.43	**85.71**
142	pos	purity	0	75	8.33	2.78	2.78	11.11
143	pos	purity	61.11	27.78	2.78	5.56	0	2.78
143	neg	purity	4.23	42.25	14.08	4.23	4.23	30.99
143	neu	none	17.14	50	11.43	1.43	2.86	17.14
143	pos	purity	55.56	30.56	8.33	0	2.78	2.78
144	pos	purity	38.89	22.22	5.56	16.67	2.78	13.89
144	neg	purity	5.63	33.8	32.39	5.63	7.04	15.49
144	neu	none	2.86	34.29	14.29	2.86	0	45.71
144	pos	purity	19.44	19.44	30.56	5.56	0	25
145	neg	purity	8.33	8.33	2.78	22.22	52.78	5.56
145	neg	purity	13.64	4.55	2.27	27.27	47.73	4.55

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Item	Valence	Foundation	Care	Fairness	Loyalty	Authority	Purity	None
145	neu	none	10	7.14	0	5.71	34.29	42.86
145	pos	purity	15.07	2.74	5.48	17.81	56.16	2.74
146	neg	purity	44.44	25	5.56	2.78	16.67	5.56
146	neg	purity	50	27.27	4.55	4.55	11.36	2.27
146	neu	none	31.43	15.71	4.29	1.43	4.29	42.86
146	pos	purity	61.64	20.55	0	4.11	8.22	5.48
147	neg	purity	44.44	8.33	11.11	5.56	8.33	22.22
147	neg	purity	59.09	9.09	9.09	2.27	2.27	18.18
147	neu	none	82.86	7.14	2.86	0	0	7.14
147	pos	purity	86.3	1.37	5.48	0	4.11	2.74
148	neg	purity	8.33	47.22	22.22	5.56	11.11	5.56
148	neg	purity	2.78	58.33	8.33	8.33	16.67	5.56
148	neu	none	30.99	35.21	7.04	5.63	1.41	19.72
148	pos	purity	45.71	30	22.86	0	1.43	0
149	neg	purity	55.56	16.67	0	2.78	8.33	16.67
149	neg	purity	80.56	8.33	5.56	0	2.78	2.78
149	neu	none	78.87	7.04	1.41	1.41	2.82	8.45
149	pos	purity	90	4.29	1.43	0	2.86	1.43
150	neg	purity	33.33	30.56	0	5.56	5.56	25
150	neg	purity	30.56	47.22	0	0	2.78	19.44
150	neu	none	45.07	16.9	1.41	7.04	1.41	28.17
150	pos	purity	94.29	2.86	1.43	0	1.43	0
151	neu	none	0	8.33	0	8.33	2.78	**80.56**
151	neg	purity	10.96	61.64	0	5.48	15.07	6.85
151	neu	none	0	13.64	4.55	4.55	0	77.27
151	pos	purity	18.57	34.29	4.29	2.86	1.43	38.57
152	neu	none	52.78	16.67	2.78	2.78	2.78	22.22
152	neg	purity	64.38	19.18	6.85	1.37	2.74	5.48
152	neu	none	72.73	2.27	4.55	2.27	0	18.18
152	pos	purity	85.71	8.57	4.29	1.43	0	0

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Item	Valence	Foundation	Care	Fairness	Loyalty	Authority	Purity	None
153	neu	none	58.33	5.56	5.56	5.56	2.78	22.22
153	neg	purity	50.68	24.66	2.74	5.48	12.33	4.11
153	neu	none	81.82	11.36	0	0	4.55	2.27
153	pos	purity	94.29	2.86	0	0	2.86	0
154	neu	none	38.89	22.22	5.56	5.56	5.56	22.22
154	neg	purity	20	55.71	0	2.86	10	11.43
154	neu	none	41.67	41.67	5.56	8.33	0	2.78
154	pos	purity	47.89	19.72	4.23	7.04	7.04	14.08
155	neu	none	77.78	2.78	0	0	5.56	13.89
155	neg	purity	72.86	10	8.57	0	2.86	5.71
155	neu	none	86.11	2.78	0	0	0	11.11
155	pos	purity	80.28	4.23	7.04	1.41	1.41	5.63
156	neu	none	86.11	0	2.78	0	0	11.11
156	neg	purity	64.29	4.29	5.71	0	1.43	24.29
156	neu	none	77.78	5.56	0	0	0	16.67
156	pos	purity	90.14	0	5.63	1.41	1.41	1.41
157	neg	loyalty	21.43	40	24.29	5.71	0	8.57
157	neu	none	43.84	31.51	13.7	1.37	1.37	8.22
157	pos	loyalty	40	22.5	28.75	1.25	1.25	6.25
158	neg	loyalty	52.86	17.14	20	2.86	0	7.14
158	neu	none	75.34	13.7	5.48	0	0	5.48
158	pos	loyalty	52.5	17.5	27.5	0	0	2.5
159	neg	loyalty	4.29	51.43	42.86	1.43	0	0
159	neu	none	6.85	56.16	31.51	0	1.37	4.11
159	pos	loyalty	5	50	36.25	6.25	0	2.5
160	neg	loyalty	36.76	33.82	7.35	1.47	1.47	19.12
160	neu	none	5.48	58.9	15.07	9.59	0	10.96
160	pos	loyalty	61.25	17.5	15	2.5	0	3.75
161	neg	loyalty	1.41	81.69	2.82	8.45	0	5.63
161	neu	none	1.43	34.29	0	1.43	0	62.86

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Item	Valence	Foundation	Care	Fairness	Loyalty	Authority	Purity	None
161	pos	loyalty	26.39	63.89	5.56	1.39	0	2.78
162	neg	loyalty	12.68	57.75	11.27	12.68	0	5.63
162	neu	none	10	70	8.57	1.43	0	10
162	pos	loyalty	52.78	27.78	2.78	2.78	0	13.89
163	neg	loyalty	39.44	15.49	36.62	2.82	2.82	2.82
163	neu	none	74.29	15.71	8.57	0	0	1.43
163	pos	loyalty	77.78	2.78	15.28	0	1.39	2.78
164	neg	loyalty	22.5	28.75	27.5	11.25	1.25	8.75
164	neu	none	11.43	7.14	8.57	1.43	0	**71.43**
164	pos	loyalty	47.95	12.33	35.62	0	0	4.11
165	neg	loyalty	3.75	45	45	0	2.5	3.75
165	neu	none	11.43	41.43	14.29	4.29	0	28.57
165	pos	loyalty	34.25	13.7	45.21	0	1.37	5.48
166	neg	loyalty	40	25	27.5	1.25	2.5	3.75
166	neu	none	75.71	12.86	7.14	0	1.43	2.86
166	pos	loyalty	72.6	9.59	15.07	0	1.37	1.37
167	neg	loyalty	33.75	36.25	16.25	0	0	13.75
167	neu	none	70	20	5.71	2.86	1.43	0
167	pos	loyalty	71.43	14.29	10	1.43	0	2.86
168	neg	loyalty	38.89	38.89	15.28	2.78	2.78	1.39
168	neu	none	22.54	8.45	5.63	0	1.41	61.97
168	pos	loyalty	55.71	17.14	21.43	1.43	0	4.29
169	neg	loyalty	13.89	51.39	33.33	0	1.39	0
169	neu	none	5.63	7.04	7.04	1.41	0	**78.87**
169	pos	loyalty	87.14	5.71	5.71	0	1.43	0
170	neg	loyalty	33.33	29.17	19.44	2.78	1.39	13.89
170	neu	none	26.76	42.25	9.86	4.23	0	16.9
170	pos	loyalty	62.86	27.14	5.71	0	2.86	1.43
171	neg	loyalty	19.18	41.1	6.85	2.74	0	30.14
171	neu	none	68.75	20	5	0	2.5	3.75

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Item	Valence	Foundation	Care	Fairness	Loyalty	Authority	Purity	None
171	pos	loyalty	81.43	10	2.86	1.43	0	4.29
172	neg	loyalty	43.84	20.55	23.29	0	1.37	10.96
172	neu	none	18.75	15	7.5	1.25	0	57.5
172	pos	loyalty	77.14	4.29	15.71	0	0	2.86
173	neg	loyalty	16.44	46.58	31.51	0	0	5.48
173	neu	none	21.25	56.25	15	2.5	1.25	3.75
173	pos	loyalty	64.29	20	10	0	1.43	4.29
174	neg	loyalty	8.22	28.77	35.62	4.11	0	23.29
174	neu	none	43.06	11.11	4.17	2.78	0	38.89
174	pos	loyalty	27.14	30	25.71	5.71	0	11.43
175	neg	loyalty	14.29	50	11.43	1.43	1.43	21.43
175	neu	none	52.78	6.94	13.89	0	0	26.39
175	pos	loyalty	60.56	4.23	21.13	1.41	1.41	11.27
176	neg	loyalty	4.29	27.14	58.57	1.43	1.43	7.14
176	neu	none	43.06	40.28	9.72	0	0	6.94
176	pos	loyalty	66.2	15.49	8.45	0	5.63	4.23
177	neg	loyalty	1.43	45.71	11.43	37.14	0	4.29
177	neu	none	6.94	38.89	9.72	9.72	0	34.72
177	pos	loyalty	32.39	26.76	22.54	5.63	2.82	9.86
178	neg	loyalty	18.57	68.57	2.86	5.71	0	4.29
178	neu	none	47.95	35.62	5.48	1.37	1.37	8.22
178	pos	loyalty	41.25	38.75	5	5	2.5	7.5
179	neg	loyalty	20	34.29	11.43	0	0	34.29
179	neu	none	32.88	17.81	15.07	2.74	0	31.51
179	pos	loyalty	50	12.5	6.25	1.25	1.25	28.75
180	neg	loyalty	15.71	32.86	14.29	4.29	0	32.86
180	neu	none	28.77	41.1	16.44	2.74	2.74	8.22
180	pos	loyalty	37.5	30	26.25	1.25	1.25	3.75
181	neg	loyalty	29.58	50.7	1.41	5.63	2.82	9.86
181	neu	none	52.86	38.57	0	1.43	2.86	4.29

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Item	Valence	Foundation	Care	Fairness	Loyalty	Authority	Purity	None
181	pos	loyalty	70.83	25	1.39	1.39	0	1.39
182	neg	loyalty	8.45	43.66	38.03	2.82	5.63	1.41
182	neu	none	18.57	44.29	12.86	0	0	24.29
182	pos	loyalty	56.94	15.28	25	0	0	2.78
183	neg	loyalty	40.85	28.17	9.86	2.82	9.86	8.45
183	neu	none	8.57	5.71	5.71	0	0	**80**
183	pos	loyalty	97.22	0	1.39	0	0	1.39
184	neg	loyalty	20	42.5	20	7.5	5	5
184	neu	none	7.14	38.57	11.43	14.29	0	28.57
184	pos	loyalty	9.59	46.58	21.92	15.07	0	6.85
185	neg	loyalty	12.5	35	42.5	3.75	5	1.25
185	neu	none	50	24.29	18.57	1.43	0	5.71
185	pos	loyalty	63.01	9.59	23.29	1.37	1.37	1.37
186	neg	loyalty	11.25	36.25	46.25	2.5	2.5	1.25
186	neu	none	31.43	27.14	11.43	1.43	0	28.57
186	pos	loyalty	52.05	13.7	28.77	0	0	5.48
187	neg	loyalty	37.5	25	20.83	5.56	1.39	9.72
187	neu	none	28.17	21.13	0	1.41	1.41	47.89
187	pos	loyalty	71.43	7.14	20	1.43	0	0
188	neg	loyalty	19.44	48.61	27.78	1.39	0	2.78
188	neu	none	50.7	18.31	15.49	0	1.41	14.08
188	pos	loyalty	64.29	11.43	22.86	1.43	0	0
189	neg	loyalty	23.61	55.56	2.78	6.94	4.17	6.94
189	neu	none	2.82	50.7	2.82	1.41	0	42.25
189	pos	loyalty	60	27.14	4.29	4.29	0	4.29

Note. Foundation describe the intended foundation, for which the items were developed. Items that met the criteria are underlined in grey.

APPENDIX A

Table A3

Items in ascending order of their selectivity based on the valence rating.

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
190	pos	m	6.37	5.98	6.77	6.32	0.05	0.36
190	neg	f	1.61	1.36	1.86	1.72	-0.11	0.36
190	pos	f	6.51	6.3	6.73	6.32	0.19	0.36
190	neg	m	1.49	1.23	1.75	1.72	-0.24	0.36
190	neu	m	4.02	3.73	4.32	4.02	0	0.36
190	neu	f	3.86	3.59	4.13	4.02	-0.16	0.36
164	pos	m	6.36	6.05	6.67	6.32	0.04	0.41
164	neu	f	3.89	3.63	4.14	4.02	-0.14	0.41
164	neg	f	1.95	1.71	2.2	1.72	0.23	0.41
164	neg	m	2	1.68	2.32	1.72	0.28	0.41
164	neu	m	3.91	3.53	4.3	4.02	-0.11	0.41
164	pos	f	6.41	6.05	6.76	6.32	0.08	0.41
191	neg	m	1.43	1.22	1.64	1.72	-0.29	0.57
191	pos	m	6.57	6.27	6.88	6.32	0.25	0.57
191	neg	f	1.39	1.15	1.63	1.72	-0.33	0.57
191	pos	f	6.49	6.07	6.9	6.32	0.16	0.57
191	neu	f	4.19	3.94	4.45	4.02	0.17	0.57
191	neu	m	3.93	3.72	4.15	4.02	-0.09	0.57
78	neg	f	1.61	1.2	2.02	1.72	-0.11	0.57
78	neu	f	3.89	3.64	4.13	4.02	-0.13	0.57
78	pos	m	6.08	5.71	6.44	6.32	-0.24	0.57
78	neg	m	1.56	1.31	1.81	1.72	-0.16	0.57
78	neu	m	3.92	3.75	4.08	4.02	-0.11	0.57
78	pos	f	5.88	5.38	6.37	6.32	-0.44	0.57
194	neu	m	3.72	3.39	4.05	4.02	-0.3	0.58
194	neu	f	3.94	3.63	4.26	4.02	-0.08	0.58
194	neg	m	1.82	1.47	2.18	1.72	0.1	0.58
194	pos	m	6.24	5.82	6.65	6.32	-0.09	0.58
194	neg	f	1.86	1.44	2.28	1.72	0.14	0.58

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
194	pos	f	5.88	5.3	6.46	6.32	-0.44	0.58
10	neg	f	1.41	1.19	1.62	1.72	-0.31	0.59
10	neu	m	3.91	3.58	4.25	4.02	-0.11	0.59
10	neu	f	4.09	3.84	4.33	4.02	0.06	0.59
10	pos	f	6.3	5.98	6.62	6.32	-0.03	0.59
10	pos	m	5.94	5.51	6.38	6.32	-0.38	0.59
10	neg	m	1.42	1.1	1.73	1.72	-0.31	0.59
193	neg	f	2.08	1.65	2.51	1.72	0.36	0.6
193	neu	f	4.17	3.87	4.46	4.02	0.14	0.6
193	pos	m	6.18	5.79	6.58	6.32	-0.14	0.6
193	pos	f	6.12	5.63	6.61	6.32	-0.2	0.6
193	neu	m	4.19	3.85	4.54	4.02	0.17	0.6
193	neg	m	2.06	1.74	2.38	1.72	0.34	0.6
44	neu	f	3.89	3.76	4.02	4.02	-0.13	0.68
44	neu	m	3.65	3.4	3.89	4.02	-0.38	0.68
44	neg	f	1.7	1.27	2.12	1.72	-0.03	0.68
44	pos	f	6.61	6.35	6.87	6.32	0.29	0.68
44	neg	m	1.37	1.1	1.64	1.72	-0.35	0.68
44	pos	m	6.64	6.37	6.91	6.32	0.32	0.68
161	pos	m	6.36	6.07	6.65	6.32	0.04	0.69
161	neg	m	1.89	1.64	2.15	1.72	0.17	0.69
161	pos	f	6.28	6	6.56	6.32	-0.05	0.69
161	neu	f	4.36	4.08	4.64	4.02	0.34	0.69
161	neg	f	1.94	1.59	2.29	1.72	0.22	0.69
161	neu	m	4.56	4.26	4.86	4.02	0.54	0.69
146	neu	f	4.46	4.04	4.87	4.02	0.43	0.78
146	pos	f	6.39	5.97	6.8	6.32	0.07	0.78
146	neg	f	1.33	1.06	1.6	1.72	-0.39	0.78
146	neu	m	4	3.58	4.42	4.02	-0.02	0.78
146	pos	m	6.49	6.17	6.81	6.32	0.16	0.78
146	neg	m	1.23	1.06	1.39	1.72	-0.49	0.78
172	pos	m	6.71	6.47	6.96	6.32	0.39	0.8

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
172	neg	m	2.11	1.77	2.45	1.72	0.39	0.8
172	pos	f	6.4	5.98	6.82	6.32	0.08	0.8
172	neu	m	3.83	3.57	4.1	4.02	-0.19	0.8
172	neg	f	2.14	1.83	2.44	1.72	0.41	0.8
172	neu	f	3.68	3.4	3.97	4.02	-0.34	0.8
9	neu	f	4.37	4.09	4.65	4.02	0.35	0.8
9	pos	f	6.76	6.56	6.95	6.32	0.43	0.8
9	neg	f	1.86	1.61	2.12	1.72	0.14	0.8
9	pos	m	6.86	6.72	7	6.32	0.54	0.8
9	neg	m	1.72	1.34	2.1	1.72	0	0.8
9	neu	m	4.17	3.84	4.51	4.02	0.15	0.8
18	neg	m	1.5	1.21	1.79	1.72	-0.22	0.83
18	neg	f	1.65	1.3	2	1.72	-0.08	0.83
18	pos	m	6.64	6.27	7.01	6.32	0.31	0.83
18	pos	f	7	7	7	6.32	0.68	0.83
18	neu	m	4.08	3.92	4.25	4.02	0.06	0.83
18	neu	f	4.3	4.03	4.56	4.02	0.27	0.83
56	neu	f	4.05	3.69	4.41	4.02	0.02	0.84
56	neg	f	1.59	1.19	2	1.72	-0.13	0.84
56	neg	m	1.25	1.09	1.41	1.72	-0.47	0.84
56	pos	m	5.83	5.31	6.35	6.32	-0.49	0.84
56	neu	m	3.72	3.3	4.15	4.02	-0.3	0.84
56	pos	f	5.97	5.5	6.44	6.32	-0.35	0.84
7	pos	m	6.75	6.5	7	6.32	0.43	0.87
7	pos	f	6.64	6.38	6.9	6.32	0.32	0.87
7	neg	m	2.24	1.82	2.65	1.72	0.51	0.87
7	neg	f	2.12	1.76	2.48	1.72	0.4	0.87
7	neu	f	4.06	3.64	4.47	4.02	0.03	0.87
7	neu	m	4.24	3.82	4.65	4.02	0.21	0.87
165	neg	m	1.64	1.18	2.1	1.72	-0.08	0.88
165	neg	f	1.3	1.14	1.45	1.72	-0.43	0.88
165	pos	f	6.62	6.31	6.93	6.32	0.3	0.88

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
165	pos	m	6.53	6.22	6.84	6.32	0.2	0.88
165	neu	f	4.37	3.95	4.8	4.02	0.35	0.88
165	neu	m	4.6	4.14	5.06	4.02	0.58	0.88
42	neg	f	1.11	0.94	1.29	1.72	-0.61	0.89
42	neu	m	4.11	3.93	4.29	4.02	0.09	0.89
42	neg	m	1.17	0.84	1.51	1.72	-0.55	0.89
42	pos	m	6.5	6.11	6.89	6.32	0.18	0.89
42	pos	f	6.59	6.25	6.93	6.32	0.27	0.89
42	neu	f	4.08	3.96	4.2	4.02	0.06	0.89
38	pos	m	6.74	6.44	7.03	6.32	0.41	0.9
38	neg	m	1.79	1.44	2.15	1.72	0.07	0.9
38	neu	m	4.33	4.01	4.66	4.02	0.31	0.9
38	neg	f	1.72	1.34	2.1	1.72	0	0.9
38	pos	f	6.55	6.11	6.98	6.32	0.22	0.9
38	neu	f	4.72	4.36	5.09	4.02	0.7	0.9
57	neg	f	1.24	1.05	1.42	1.72	-0.49	0.95
57	pos	f	5.99	5.66	6.31	6.32	-0.34	0.95
57	neu	f	3.92	3.77	4.06	4.02	-0.11	0.95
57	neg	m	1.36	1	1.72	1.72	-0.36	0.95
57	pos	m	6.39	5.99	6.79	6.32	0.07	0.95
57	neu	m	3.39	3.18	3.6	4.02	-0.63	0.95
122	pos	f	6.39	6.08	6.69	6.32	0.07	0.97
122	neg	m	1.89	1.51	2.28	1.72	0.17	0.97
122	neu	m	3.38	3.12	3.64	4.02	-0.64	0.97
122	neu	f	3.47	3.24	3.7	4.02	-0.55	0.97
122	pos	m	6.31	6	6.61	6.32	-0.02	0.97
122	neg	f	2.15	1.71	2.6	1.72	0.43	0.97
183	neg	f	1.61	1.27	1.94	1.72	-0.12	0.97
183	neu	f	3.59	3.27	3.91	4.02	-0.43	0.97
183	pos	f	5.81	5.52	6.1	6.32	-0.52	0.97
183	pos	m	5.94	5.67	6.21	6.32	-0.38	0.97
183	neg	m	1.39	1.19	1.6	1.72	-0.33	0.97

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
183	neu	m	3.56	3.33	3.78	4.02	-0.47	0.97
34	neg	m	1.35	1.12	1.58	1.72	-0.37	0.97
34	pos	m	6.54	6.22	6.87	6.32	0.22	0.97
34	neu	f	4.39	3.98	4.8	4.02	0.37	0.97
34	neg	f	1.44	1.22	1.67	1.72	-0.28	0.97
34	neu	m	4.75	4.41	5.09	4.02	0.73	0.97
34	pos	f	6.43	6.15	6.71	6.32	0.11	0.97
37	neg	f	1.33	0.98	1.69	1.72	-0.39	1.02
37	neu	f	3.56	3.33	3.78	4.02	-0.47	1.02
37	neu	m	3.75	3.49	4.01	4.02	-0.27	1.02
37	pos	f	6.52	6.04	6.99	6.32	0.19	1.02
37	neg	m	1.12	0.94	1.3	1.72	-0.6	1.02
37	pos	m	6.76	6.58	6.95	6.32	0.44	1.02
142	neg	f	2.5	2.08	2.92	1.72	0.78	1.04
142	neu	m	4	3.77	4.23	4.02	-0.02	1.04
142	neu	f	4.26	4.03	4.5	4.02	0.24	1.04
142	pos	m	6.11	5.74	6.48	6.32	-0.21	1.04
142	neg	m	2.15	1.77	2.53	1.72	0.43	1.04
142	pos	f	5.89	5.51	6.27	6.32	-0.43	1.04
168	neu	f	4.24	3.93	4.55	4.02	0.22	1.04
168	neg	f	1.64	1.3	1.98	1.72	-0.08	1.04
168	neu	m	4.92	4.48	5.37	4.02	0.9	1.04
168	neg	m	1.78	1.44	2.12	1.72	0.06	1.04
168	pos	f	5.88	5.59	6.18	6.32	-0.44	1.04
168	pos	m	6.19	5.87	6.51	6.32	-0.13	1.04
68	pos	m	6.57	6.3	6.84	6.32	0.24	1.06
68	neu	m	3.66	3.42	3.9	4.02	-0.37	1.06
68	neg	m	2.2	1.84	2.57	1.72	0.48	1.06
68	neu	f	3.34	3.07	3.62	4.02	-0.68	1.06
68	neg	f	2.06	1.64	2.47	1.72	0.33	1.06
68	pos	f	5.97	5.58	6.37	6.32	-0.35	1.06
114	pos	m	6.03	5.68	6.37	6.32	-0.29	1.08

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
114	neg	m	1.65	1.32	1.98	1.72	-0.07	1.08
114	neg	f	1.72	1.48	1.96	1.72	0	1.08
114	pos	f	5.91	5.57	6.26	6.32	-0.41	1.08
114	neu	f	4.5	4.11	4.89	4.02	0.48	1.08
114	neu	m	4.84	4.52	5.16	4.02	0.82	1.08
14	neu	m	4.61	4.2	5.01	4.02	0.58	1.08
14	neg	f	1.28	1.08	1.48	1.72	-0.44	1.08
14	pos	m	6.47	6.1	6.84	6.32	0.15	1.08
14	neu	f	4.73	4.26	5.2	4.02	0.7	1.08
14	pos	f	6.59	6.37	6.81	6.32	0.26	1.08
14	neg	m	1.5	1.25	1.75	1.72	-0.22	1.08
109	pos	f	6.25	5.84	6.66	6.32	-0.07	1.13
109	neg	f	1.92	1.64	2.19	1.72	0.19	1.13
109	neu	f	4.55	4.23	4.87	4.02	0.53	1.13
109	pos	m	5.91	5.61	6.21	6.32	-0.41	1.13
109	neg	m	1.42	1.18	1.66	1.72	-0.31	1.13
109	neu	m	4.85	4.29	5.4	4.02	0.83	1.13
110	pos	m	6.85	6.68	7.02	6.32	0.53	1.13
110	neu	m	3.88	3.3	4.46	4.02	-0.14	1.13
110	neu	f	4.55	4.05	5.05	4.02	0.53	1.13
110	pos	f	6.67	6.31	7.02	6.32	0.34	1.13
110	neg	f	1.08	0.99	1.17	1.72	-0.64	1.13
110	neg	m	1.31	1.07	1.54	1.72	-0.42	1.13
129	neu	m	3.16	2.91	3.41	4.02	-0.86	1.13
129	neg	f	1.39	1.18	1.6	1.72	-0.33	1.13
129	pos	m	6.39	6.09	6.68	6.32	0.07	1.13
129	pos	f	6.26	6	6.53	6.32	-0.06	1.13
129	neg	m	1.58	1.34	1.82	1.72	-0.14	1.13
129	neu	f	3.39	3.05	3.73	4.02	-0.63	1.13
33	neg	f	1.5	1.1	1.9	1.72	-0.22	1.14
33	neg	m	1.22	1	1.44	1.72	-0.5	1.14
33	pos	m	6.32	5.91	6.73	6.32	0	1.14

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
33	neu	f	4.95	4.5	5.4	4.02	0.92	1.14
33	neu	m	4.39	3.98	4.81	4.02	0.37	1.14
33	pos	f	6.42	6	6.83	6.32	0.09	1.14
145	neu	f	4.46	4.1	4.81	4.02	0.43	1.15
145	pos	m	6.59	6.34	6.85	6.32	0.27	1.15
145	neu	m	4.69	4.29	5.09	4.02	0.66	1.15
145	neg	f	2.14	1.86	2.42	1.72	0.42	1.15
145	neg	m	2.39	2.15	2.63	1.72	0.66	1.15
145	pos	f	6.19	5.88	6.51	6.32	-0.13	1.15
51	neu	m	4.11	3.94	4.27	4.02	0.08	1.15
51	pos	m	5.67	5.29	6.04	6.32	-0.66	1.15
51	neg	m	1.17	1	1.33	1.72	-0.56	1.15
51	pos	f	5.88	5.58	6.19	6.32	-0.44	1.15
51	neg	f	1.11	0.94	1.28	1.72	-0.61	1.15
51	neu	f	4.15	4	4.3	4.02	0.13	1.15
131	pos	m	6.53	6.24	6.81	6.32	0.2	1.17
131	neu	f	3.82	3.56	4.08	4.02	-0.2	1.17
131	pos	f	5.71	5.32	6.09	6.32	-0.62	1.17
131	neg	f	1.08	0.99	1.17	1.72	-0.64	1.17
131	neu	m	3.92	3.63	4.21	4.02	-0.1	1.17
131	neg	m	1.03	0.97	1.08	1.72	-0.69	1.17
189	neu	m	4.64	4.28	5	4.02	0.61	1.18
189	pos	m	6.15	5.86	6.44	6.32	-0.18	1.18
189	pos	f	5.86	5.46	6.26	6.32	-0.46	1.18
189	neg	m	1.33	1.13	1.54	1.72	-0.39	1.18
189	neg	f	1.53	1.27	1.78	1.72	-0.19	1.18
189	neu	f	4.79	4.48	5.1	4.02	0.77	1.18
195	neg	m	2.32	2.03	2.62	1.72	0.6	1.23
195	neu	f	4.42	4.18	4.66	4.02	0.39	1.23
195	neg	f	2.56	2.19	2.92	1.72	0.83	1.23
195	neu	m	4.53	4.25	4.8	4.02	0.5	1.23
195	pos	f	6.12	5.68	6.56	6.32	-0.2	1.23

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
195	pos	m	6.32	6	6.63	6.32	-0.01	1.23
28	pos	f	6.31	5.99	6.62	6.32	-0.02	1.23
28	neg	f	1.78	1.21	2.34	1.72	0.06	1.23
28	neu	m	4.54	4.18	4.91	4.02	0.52	1.23
28	neu	f	5.03	4.62	5.43	4.02	1.01	1.23
28	pos	m	6.24	5.91	6.58	6.32	-0.08	1.23
28	neg	m	1.25	1.05	1.45	1.72	-0.47	1.23
16	pos	f	6.54	6.3	6.79	6.32	0.22	1.24
16	neg	m	1.19	1.02	1.37	1.72	-0.53	1.24
16	neg	f	1.22	1.06	1.37	1.72	-0.51	1.24
16	neu	m	4.64	4.33	4.95	4.02	0.62	1.24
16	pos	m	6.6	6.38	6.82	6.32	0.28	1.24
16	neu	f	4.73	4.44	5.01	4.02	0.7	1.24
35	neg	f	1.28	0.94	1.61	1.72	-0.44	1.25
35	pos	f	6.8	6.64	6.96	6.32	0.48	1.25
35	neu	m	3.45	3.23	3.68	4.02	-0.57	1.25
35	neg	m	1.24	1.05	1.44	1.72	-0.48	1.25
35	neu	f	3.36	3.03	3.69	4.02	-0.66	1.25
35	pos	m	6.71	6.51	6.92	6.32	0.39	1.25
66	pos	f	5.64	5.26	6.02	6.32	-0.68	1.25
66	pos	m	5.78	5.36	6.2	6.32	-0.55	1.25
66	neg	f	1.29	0.94	1.64	1.72	-0.43	1.25
66	neg	m	1.36	0.97	1.75	1.72	-0.36	1.25
66	neu	f	3.5	3.21	3.79	4.02	-0.52	1.25
66	neu	m	3.56	3.27	3.84	4.02	-0.47	1.25
8	pos	m	6.92	6.83	7.01	6.32	0.59	1.28
8	neu	m	4.14	3.65	4.64	4.02	0.12	1.28
8	pos	f	6.86	6.73	7	6.32	0.54	1.28
8	neu	f	4.69	4.28	5.09	4.02	0.66	1.28
8	neg	f	1.02	0.98	1.07	1.72	-0.7	1.28
8	neg	m	1.5	1	2	1.72	-0.22	1.28
40	neu	m	4.35	4.04	4.67	4.02	0.33	1.3

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
40	pos	f	5.59	5.22	5.96	6.32	-0.73	1.3
40	neg	f	1.91	1.58	2.25	1.72	0.19	1.3
40	pos	m	5.47	5.07	5.87	6.32	-0.85	1.3
40	neu	f	4.56	4.2	4.91	4.02	0.53	1.3
40	neg	m	1.83	1.49	2.16	1.72	0.11	1.3
120	pos	f	6.14	5.77	6.51	6.32	-0.19	1.31
120	neg	m	1.6	1.18	2.02	1.72	-0.12	1.31
120	neu	f	4.89	4.52	5.26	4.02	0.87	1.31
120	pos	m	6.25	5.9	6.6	6.32	-0.07	1.31
120	neu	m	4.86	4.49	5.24	4.02	0.84	1.31
120	neg	f	1.29	1.06	1.51	1.72	-0.44	1.31
29	pos	f	5.61	5.23	6	6.32	-0.71	1.32
29	neu	m	3.26	2.99	3.53	4.02	-0.77	1.32
29	neg	m	1.05	0.96	1.13	1.72	-0.68	1.32
29	neg	f	1.5	1.09	1.91	1.72	-0.22	1.32
29	pos	m	6	5.62	6.38	6.32	-0.32	1.32
29	neu	f	3.86	3.61	4.1	4.02	-0.17	1.32
99	pos	f	6.53	6.31	6.74	6.32	0.2	1.32
99	pos	m	6.24	5.72	6.76	6.32	-0.08	1.32
99	neg	f	2.62	2.28	2.96	1.72	0.9	1.32
99	neg	m	2.17	1.86	2.47	1.72	0.44	1.32
99	neu	f	4.36	4.1	4.62	4.02	0.34	1.32
99	neu	m	4.78	4.45	5.11	4.02	0.75	1.32
13	neu	f	4.88	4.39	5.37	4.02	0.86	1.34
13	neu	m	4.71	4.27	5.15	4.02	0.69	1.34
13	neg	f	1.31	1.1	1.51	1.72	-0.42	1.34
13	pos	m	6.83	6.71	6.96	6.32	0.51	1.34
13	pos	f	6.59	6.4	6.78	6.32	0.26	1.34
13	neg	m	1.42	1.19	1.64	1.72	-0.31	1.34
26	neg	m	2.24	1.96	2.53	1.72	0.52	1.35
26	pos	f	6.83	6.71	6.96	6.32	0.51	1.35
26	pos	m	6.78	6.62	6.94	6.32	0.45	1.35

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
26	neg	f	2.11	1.77	2.44	1.72	0.38	1.35
26	neu	f	3.56	3.31	3.81	4.02	-0.46	1.35
26	neu	m	3.17	2.89	3.44	4.02	-0.86	1.35
12	pos	f	7	7	7	6.32	0.68	1.42
12	neg	f	1.31	0.95	1.66	1.72	-0.42	1.42
12	neg	m	1.11	0.98	1.24	1.72	-0.61	1.42
12	neu	f	4.82	4.35	5.29	4.02	0.8	1.42
12	neu	m	4.42	3.96	4.89	4.02	0.4	1.42
12	pos	m	6.81	6.48	7.14	6.32	0.48	1.42
127	neu	m	5.06	4.67	5.44	4.02	1.03	1.42
127	pos	m	6.36	6.02	6.7	6.32	0.04	1.42
127	neg	f	1.52	1.26	1.79	1.72	-0.2	1.42
127	pos	f	5.89	5.46	6.32	6.32	-0.43	1.42
127	neu	f	4.66	4.2	5.11	4.02	0.63	1.42
127	neg	m	1.17	0.98	1.35	1.72	-0.56	1.42
169	neg	m	1.06	0.98	1.13	1.72	-0.67	1.43
169	neg	f	1	1	1	1.72	-0.72	1.43
169	pos	m	6.5	6.13	6.87	6.32	0.18	1.43
169	neu	f	3.24	2.87	3.61	4.02	-0.78	1.43
169	pos	f	6.38	6.18	6.59	6.32	0.06	1.43
169	neu	m	3.37	3.05	3.69	4.02	-0.65	1.43
63	neu	m	4.08	3.44	4.72	4.02	0.06	1.43
63	pos	f	5.56	5.08	6.03	6.32	-0.77	1.43
63	neg	f	1.14	0.98	1.31	1.72	-0.58	1.43
63	neg	m	1.03	0.97	1.08	1.72	-0.69	1.43
63	neu	f	3.38	2.87	3.88	4.02	-0.64	1.43
63	pos	m	5.86	5.47	6.26	6.32	-0.46	1.43
133	pos	m	6.91	6.79	7.04	6.32	0.59	1.47
133	neg	m	1.17	1	1.33	1.72	-0.56	1.47
133	pos	f	6.66	6.39	6.92	6.32	0.33	1.47
133	neg	f	1.08	0.96	1.2	1.72	-0.64	1.47
133	neu	m	4.78	4.46	5.09	4.02	0.75	1.47

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
133	neu	f	4.66	4.41	4.91	4.02	0.64	1.47
187	pos	f	6.72	6.38	7.07	6.32	0.4	1.47
187	pos	m	6.97	6.91	7.03	6.32	0.65	1.47
187	neu	m	4.58	4.21	4.94	4.02	0.55	1.47
187	neg	f	2.22	1.95	2.49	1.72	0.5	1.47
187	neu	f	4.71	4.34	5.08	4.02	0.69	1.47
187	neg	m	2.47	1.95	3	1.72	0.75	1.47
98	neg	m	1.75	1.48	2.02	1.72	0.03	1.48
98	neg	f	2.03	1.71	2.34	1.72	0.31	1.48
98	pos	m	6.27	5.81	6.73	6.32	-0.05	1.48
98	pos	f	6.63	6.43	6.83	6.32	0.31	1.48
98	neu	m	5.08	4.66	5.51	4.02	1.06	1.48
98	neu	f	3.08	2.86	3.31	4.02	-0.94	1.48
123	pos	f	6.28	5.92	6.63	6.32	-0.05	1.51
123	neg	m	1.05	0.95	1.16	1.72	-0.67	1.51
123	pos	m	6.39	6.08	6.69	6.32	0.07	1.51
123	neu	f	4.97	4.54	5.4	4.02	0.95	1.51
123	neu	m	4.82	4.44	5.21	4.02	0.8	1.51
123	neg	f	1.18	0.97	1.4	1.72	-0.54	1.51
88	neu	f	3.86	3.46	4.25	4.02	-0.17	1.52
88	neg	f	1.68	1.45	1.91	1.72	-0.04	1.52
88	neg	m	1.81	1.41	2.2	1.72	0.08	1.52
88	pos	m	5.25	4.73	5.77	6.32	-1.07	1.52
88	neu	m	4.03	3.57	4.49	4.02	0.01	1.52
88	pos	f	5.27	4.71	5.83	6.32	-1.05	1.52
11	neg	m	1.89	1.6	2.18	1.72	0.17	1.54
11	pos	f	5.91	5.55	6.28	6.32	-0.41	1.54
11	pos	m	6.17	5.8	6.53	6.32	-0.16	1.54
11	neg	f	2.19	1.88	2.51	1.72	0.47	1.54
11	neu	f	3.58	3.35	3.8	4.02	-0.45	1.54
11	neu	m	2.71	2.39	3.04	4.02	-1.31	1.54
39	neg	m	2.59	2.29	2.89	1.72	0.87	1.56

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
39	pos	f	5.64	5.1	6.17	6.32	-0.69	1.56
39	neu	f	3.39	3.14	3.64	4.02	-0.63	1.56
39	neg	f	2.47	2.12	2.83	1.72	0.75	1.56
39	pos	m	6.5	6.23	6.77	6.32	0.18	1.56
39	neu	m	3.56	3.28	3.83	4.02	-0.47	1.56
1	pos	f	6.52	6.23	6.81	6.32	0.2	1.57
1	neg	f	1.2	0.98	1.42	1.72	-0.52	1.57
1	neu	m	4.49	4	4.98	4.02	0.46	1.57
1	pos	m	6.17	5.69	6.64	6.32	-0.16	1.57
1	neg	m	1.03	0.97	1.08	1.72	-0.69	1.57
1	neu	f	5.22	4.75	5.69	4.02	1.2	1.57
182	neg	f	1.32	0.98	1.66	1.72	-0.41	1.59
182	pos	m	6.5	6.2	6.8	6.32	0.18	1.59
182	pos	f	6.03	5.56	6.5	6.32	-0.3	1.59
182	neu	f	4.94	4.63	5.25	4.02	0.92	1.59
182	neu	m	5.11	4.73	5.49	4.02	1.09	1.59
182	neg	m	1.27	0.94	1.61	1.72	-0.45	1.59
23	neu	m	5.14	4.77	5.51	4.02	1.12	1.65
23	neg	m	1.63	1.37	1.88	1.72	-0.09	1.65
23	pos	m	6.23	5.98	6.47	6.32	-0.1	1.65
23	neu	f	5.22	4.84	5.59	4.02	1.19	1.65
23	neg	f	1.8	1.52	2.08	1.72	0.08	1.65
23	pos	f	6.19	5.81	6.58	6.32	-0.13	1.65
74	pos	f	6.51	6.23	6.8	6.32	0.19	1.65
74	neu	f	5	4.57	5.43	4.02	0.98	1.65
74	neu	m	4.86	4.41	5.32	4.02	0.84	1.65
74	neg	m	1.05	0.98	1.13	1.72	-0.67	1.65
74	pos	m	6.54	6.25	6.84	6.32	0.22	1.65
74	neg	f	1	1	1	1.72	-0.72	1.65
95	pos	f	6.74	6.56	6.93	6.32	0.42	1.67
95	neu	m	4.89	4.37	5.41	4.02	0.87	1.67
95	neg	m	2.08	1.81	2.36	1.72	0.36	1.67

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
95	pos	m	6.31	6.02	6.61	6.32	-0.01	1.67
95	neg	f	2.19	1.85	2.53	1.72	0.47	1.67
95	neu	f	5.25	4.84	5.66	4.02	1.23	1.67
27	neg	m	2.39	2.09	2.7	1.72	0.67	1.68
27	pos	f	6.67	6.48	6.86	6.32	0.34	1.68
27	neg	f	2.13	1.87	2.39	1.72	0.41	1.68
27	neu	m	5.17	4.85	5.48	4.02	1.14	1.68
27	pos	m	6.56	6.34	6.77	6.32	0.23	1.68
27	neu	f	4.88	4.6	5.17	4.02	0.86	1.68
151	neg	m	1.19	1.04	1.34	1.72	-0.53	1.74
151	neu	f	4.03	3.81	4.24	4.02	0	1.74
151	pos	m	5.2	4.77	5.63	6.32	-1.12	1.74
151	neg	f	1.44	1.17	1.72	1.72	-0.28	1.74
151	pos	f	5.14	4.68	5.61	6.32	-1.18	1.74
151	neu	m	4.18	4	4.37	4.02	0.16	1.74
153	pos	m	6.94	6.83	7.05	6.32	0.62	1.74
153	neu	m	5.18	4.83	5.54	4.02	1.16	1.74
153	neg	f	1.56	1.28	1.83	1.72	-0.17	1.74
153	neg	m	1.68	1.25	2.11	1.72	-0.05	1.74
153	pos	f	7	7	7	6.32	0.68	1.74
153	neu	f	4.92	4.53	5.3	4.02	0.89	1.74
155	pos	f	6.09	5.51	6.67	6.32	-0.23	1.77
155	neu	m	5.44	5.07	5.81	4.02	1.42	1.77
155	neg	m	1.71	1.39	2.02	1.72	-0.02	1.77
155	neg	f	2.14	1.74	2.54	1.72	0.42	1.77
155	pos	m	6.61	6.39	6.82	6.32	0.28	1.77
155	neu	f	4.92	4.57	5.26	4.02	0.89	1.77
124	neu	f	4.06	3.98	4.13	4.02	0.03	1.79
124	neg	m	2.16	1.77	2.55	1.72	0.44	1.79
124	neu	m	4.12	3.96	4.28	4.02	0.09	1.79
124	neg	f	2.45	2.05	2.86	1.72	0.73	1.79
124	pos	m	5.44	5.11	5.78	6.32	-0.88	1.79

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
124	pos	f	5.03	4.66	5.4	6.32	-1.3	1.79
139	pos	m	6.68	6.47	6.89	6.32	0.36	1.86
139	neg	f	1.51	1.27	1.76	1.72	-0.21	1.86
139	neu	f	2.73	2.38	3.08	4.02	-1.29	1.86
139	neu	m	2.78	2.39	3.16	4.02	-1.25	1.86
139	neg	m	1.69	1.29	2.09	1.72	-0.04	1.86
139	pos	f	6.56	6.29	6.82	6.32	0.23	1.86
70	neg	f	1.44	1.22	1.67	1.72	-0.28	1.86
70	pos	m	5.91	5.58	6.25	6.32	-0.41	1.86
70	neu	f	5.32	4.88	5.75	4.02	1.29	1.86
70	neg	m	1.42	1.18	1.66	1.72	-0.31	1.86
70	pos	f	5.89	5.46	6.32	6.32	-0.43	1.86
70	neu	m	5.15	4.67	5.63	4.02	1.13	1.86
77	pos	f	5.03	4.54	5.52	6.32	-1.29	1.87
77	neg	f	1.81	1.37	2.25	1.72	0.08	1.87
77	neu	f	4.67	4.34	4.99	4.02	0.64	1.87
77	neu	m	4.81	4.49	5.12	4.02	0.78	1.87
77	neg	m	1.44	1.2	1.68	1.72	-0.28	1.87
77	pos	m	5.47	5.06	5.88	6.32	-0.85	1.87
52	pos	f	5.79	5.48	6.11	6.32	-0.53	1.9
52	neg	f	1.53	1.27	1.78	1.72	-0.19	1.9
52	pos	m	5.47	5.11	5.83	6.32	-0.85	1.9
52	neu	m	3	2.64	3.36	4.02	-1.02	1.9
52	neg	m	1.33	1.14	1.52	1.72	-0.39	1.9
52	neu	f	2.85	2.49	3.21	4.02	-1.17	1.9
67	pos	m	6.41	6.15	6.66	6.32	0.08	1.9
67	neu	f	5.37	4.99	5.76	4.02	1.35	1.9
67	pos	f	6.47	6.2	6.75	6.32	0.15	1.9
67	neg	m	1.25	1.08	1.42	1.72	-0.47	1.9
67	neg	f	1.44	1.19	1.7	1.72	-0.28	1.9
67	neu	m	5.23	4.88	5.58	4.02	1.21	1.9
41	neg	f	1.46	1.24	1.67	1.72	-0.27	1.93

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
41	neu	m	5.32	4.9	5.75	4.02	1.3	1.93
41	pos	f	5.91	5.59	6.23	6.32	-0.41	1.93
41	pos	m	5.47	5.04	5.9	6.32	-0.85	1.93
41	neg	m	1.46	1.16	1.75	1.72	-0.27	1.93
41	neu	f	5.03	4.65	5.41	4.02	1	1.93
91	pos	m	5.39	5.04	5.74	6.32	-0.93	1.95
91	neu	m	5.05	4.65	5.45	4.02	1.03	1.95
91	pos	f	5.26	4.87	5.66	6.32	-1.06	1.95
91	neg	f	1.72	1.43	2.01	1.72	0	1.95
91	neu	f	4.82	4.42	5.21	4.02	0.8	1.95
91	neg	m	2.08	1.83	2.33	1.72	0.36	1.95
6	pos	f	6.86	6.75	6.98	6.32	0.54	1.99
6	neg	m	1.34	1.14	1.54	1.72	-0.38	1.99
6	neu	m	5.41	4.96	5.87	4.02	1.39	1.99
6	neu	f	5.17	4.8	5.53	4.02	1.14	1.99
6	pos	m	6.86	6.75	6.98	6.32	0.54	1.99
6	neg	f	1.73	1.32	2.14	1.72	0.01	1.99
138	neu	m	3.17	2.85	3.48	4.02	-0.86	2
138	pos	m	5.39	4.85	5.94	6.32	-0.93	2
138	neu	f	3.03	2.6	3.45	4.02	-1	2
138	neg	m	2.25	1.81	2.69	1.72	0.53	2
138	pos	f	5.37	4.93	5.81	6.32	-0.96	2
138	neg	f	2.18	1.82	2.53	1.72	0.45	2
90	neu	f	4.79	4.35	5.23	4.02	0.77	2.01
90	neg	f	1.94	1.63	2.26	1.72	0.22	2.01
90	neu	m	4.63	4.27	5	4.02	0.61	2.01
90	neg	m	1.56	1.23	1.88	1.72	-0.17	2.01
90	pos	m	5.08	4.74	5.43	6.32	-1.24	2.01
90	pos	f	5.12	4.8	5.44	6.32	-1.21	2.01
15	pos	m	6.63	6.41	6.84	6.32	0.31	2.03
15	neu	f	5.5	5.17	5.83	4.02	1.48	2.03
15	neu	m	5.28	4.87	5.68	4.02	1.25	2.03

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
15	neg	f	1.89	1.65	2.13	1.72	0.17	2.03
15	pos	f	6.49	6.21	6.76	6.32	0.16	2.03
15	neg	m	2.19	1.89	2.5	1.72	0.47	2.03
115	neg	m	2.26	1.94	2.59	1.72	0.54	2.04
115	pos	m	5.16	4.8	5.52	6.32	-1.17	2.04
115	pos	f	4.76	4.29	5.23	6.32	-1.57	2.04
115	neu	f	3.86	3.68	4.04	4.02	-0.16	2.04
115	neu	m	3.97	3.92	4.03	4.02	-0.05	2.04
115	neg	f	1.86	1.46	2.26	1.72	0.14	2.04
186	pos	m	6.32	6.02	6.63	6.32	0	2.07
186	neu	f	5.34	5.03	5.65	4.02	1.32	2.07
186	neu	m	5.46	5.11	5.8	4.02	1.43	2.07
186	neg	f	1.31	1.05	1.56	1.72	-0.42	2.07
186	pos	f	6.33	6.1	6.57	6.32	0.01	2.07
186	neg	m	1.18	1.04	1.33	1.72	-0.54	2.07
136	pos	f	6.61	6.34	6.87	6.32	0.28	2.09
136	neu	f	5.11	4.73	5.49	4.02	1.09	2.09
136	neu	m	5.78	5.39	6.16	4.02	1.75	2.09
136	neg	f	1.65	1.36	1.93	1.72	-0.08	2.09
136	neg	m	1.64	1.26	2.02	1.72	-0.08	2.09
136	pos	m	6.24	5.77	6.72	6.32	-0.08	2.09
152	neg	f	1.89	1.59	2.19	1.72	0.17	2.1
152	neg	m	1.68	1.34	2.02	1.72	-0.05	2.1
152	neu	m	5.25	4.91	5.59	4.02	1.23	2.1
152	pos	f	7	7	7	6.32	0.68	2.1
152	neu	f	5.42	4.97	5.86	4.02	1.39	2.1
152	pos	m	7	7	7	6.32	0.68	2.1
174	pos	f	5.63	5.26	6	6.32	-0.69	2.1
174	pos	m	5.89	5.56	6.21	6.32	-0.44	2.1
174	neu	m	4.64	4.18	5.1	4.02	0.62	2.1
174	neg	f	2.97	2.67	3.27	1.72	1.25	2.1
174	neg	m	2.83	2.53	3.14	1.72	1.11	2.1

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
174	neu	f	4.78	4.45	5.11	4.02	0.75	2.1
86	pos	m	6.28	5.84	6.72	6.32	-0.05	2.1
86	neu	m	5.37	5.04	5.7	4.02	1.35	2.1
86	neu	f	5.46	5.04	5.87	4.02	1.43	2.1
86	neg	f	1.16	1.02	1.3	1.72	-0.56	2.1
86	neg	m	1.28	0.89	1.67	1.72	-0.44	2.1
86	pos	f	6.32	5.92	6.73	6.32	0	2.1
143	neg	f	2.63	2.17	3.09	1.72	0.91	2.11
143	pos	m	6.28	5.97	6.59	6.32	-0.05	2.11
143	pos	f	6.61	6.39	6.84	6.32	0.29	2.11
143	neg	m	2.42	2.01	2.84	1.72	0.7	2.11
143	neu	m	2.81	2.41	3.2	4.02	-1.22	2.11
143	neu	f	2.76	2.4	3.13	4.02	-1.26	2.11
113	pos	m	5	4.62	5.38	6.32	-1.32	2.12
113	neg	m	1.81	1.47	2.15	1.72	0.09	2.12
113	neu	m	3.89	3.74	4.03	4.02	-0.14	2.12
113	pos	f	4.8	4.36	5.24	6.32	-1.52	2.12
113	neu	f	4.03	3.72	4.34	4.02	0	2.12
113	neg	f	2.36	2.12	2.6	1.72	0.64	2.12
159	pos	m	6.33	5.85	6.82	6.32	0.01	2.12
159	pos	f	6.77	6.59	6.95	6.32	0.45	2.12
159	neu	f	5.67	5.21	6.12	4.02	1.64	2.12
159	neg	m	1.6	1.32	1.88	1.72	-0.12	2.12
159	neu	m	5.27	4.69	5.85	4.02	1.25	2.12
159	neg	f	1.63	1.37	1.88	1.72	-0.09	2.12
65	pos	m	4.97	4.6	5.34	6.32	-1.35	2.15
65	neu	f	4.15	4	4.29	4.02	0.12	2.15
65	pos	f	4.78	4.35	5.21	6.32	-1.55	2.15
65	neg	m	2.12	1.76	2.48	1.72	0.4	2.15
65	neu	m	3.97	3.92	4.03	4.02	-0.05	2.15
65	neg	f	2.18	1.91	2.46	1.72	0.46	2.15
75	neg	m	1.81	1.52	2.1	1.72	0.09	2.16

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
75	neu	f	5.39	4.97	5.8	4.02	1.37	2.16
75	pos	f	6.14	5.76	6.52	6.32	-0.18	2.16
75	neu	m	5.64	5.29	5.99	4.02	1.61	2.16
75	neg	f	2.11	1.8	2.42	1.72	0.39	2.16
75	pos	m	6.26	5.84	6.67	6.32	-0.07	2.16
162	pos	m	5.67	5.33	6.01	6.32	-0.66	2.17
162	neg	m	1.82	1.42	2.21	1.72	0.09	2.17
162	neu	m	5.18	4.78	5.57	4.02	1.15	2.17
162	neg	f	1.58	1.28	1.87	1.72	-0.15	2.17
162	neu	f	5.69	5.26	6.13	4.02	1.67	2.17
162	pos	f	5.97	5.66	6.29	6.32	-0.35	2.17
106	neg	f	2.31	1.91	2.7	1.72	0.58	2.18
106	neu	m	5.03	4.64	5.42	4.02	1.01	2.18
106	pos	f	5.36	5.07	5.65	6.32	-0.96	2.18
106	neg	m	1.84	1.52	2.16	1.72	0.12	2.18
106	pos	m	5.49	5.07	5.9	6.32	-0.84	2.18
106	neu	f	5.34	5.03	5.65	4.02	1.32	2.18
100	neg	f	1.43	1.17	1.69	1.72	-0.29	2.21
100	neg	m	1.46	1.19	1.73	1.72	-0.27	2.21
100	neu	m	5.06	4.71	5.4	4.02	1.03	2.21
100	pos	m	5.45	5.06	5.84	6.32	-0.87	2.21
100	pos	f	5.08	4.65	5.51	6.32	-1.24	2.21
100	neu	f	5.19	4.73	5.64	4.02	1.17	2.21
76	neu	m	5.64	5.22	6.05	4.02	1.62	2.22
76	neu	f	5.31	4.9	5.71	4.02	1.28	2.22
76	neg	f	2.28	1.91	2.64	1.72	0.56	2.22
76	neg	m	2.26	2.01	2.52	1.72	0.54	2.22
76	pos	m	6.08	5.65	6.51	6.32	-0.24	2.22
69	pos	m	6.62	6.42	6.83	6.32	0.3	2.25
69	neg	m	1.95	1.68	2.22	1.72	0.23	2.25
69	neu	m	5.6	5.26	5.94	4.02	1.58	2.25
69	neu	f	5.54	5.2	5.89	4.02	1.52	2.25

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
69	neg	f	1.92	1.64	2.19	1.72	0.19	2.25
69	pos	f	6.58	6.21	6.96	6.32	0.26	2.25
53	pos	m	5.94	5.6	6.28	6.32	-0.38	2.26
53	pos	f	5.85	5.5	6.21	6.32	-0.47	2.26
53	neg	f	2.14	1.82	2.46	1.72	0.42	2.26
53	neg	m	2.17	1.89	2.44	1.72	0.44	2.26
53	neu	m	5.63	5.26	6	4.02	1.61	2.26
53	neu	f	5.36	4.81	5.92	4.02	1.34	2.26
94	neg	m	3.31	2.99	3.63	1.72	1.58	2.26
94	neg	f	3.32	3.01	3.64	1.72	1.6	2.26
94	pos	f	6.37	6.09	6.65	6.32	0.05	2.26
94	pos	m	6.49	6.25	6.72	6.32	0.16	2.26
94	neu	m	4.06	3.79	4.33	4.02	0.03	2.26
94	neu	f	4.16	3.84	4.48	4.02	0.14	2.26
32	pos	f	6.31	5.89	6.72	6.32	-0.02	2.28
32	neg	m	1.06	0.98	1.13	1.72	-0.67	2.28
32	neg	f	1.31	1.12	1.49	1.72	-0.42	2.28
32	pos	m	6.5	6.18	6.82	6.32	0.18	2.28
32	neu	f	5.66	5.32	6	4.02	1.64	2.28
32	neu	m	5.39	5	5.78	4.02	1.37	2.28
105	pos	m	6.56	6.3	6.81	6.32	0.23	2.3
105	neg	m	2.61	2.19	3.02	1.72	0.88	2.3
105	neg	f	2.5	2.01	2.99	1.72	0.78	2.3
105	neu	m	5.39	4.86	5.92	4.02	1.37	2.3
105	pos	f	6.53	6.2	6.85	6.32	0.2	2.3
105	neu	f	5.41	4.83	5.99	4.02	1.39	2.3
149	neu	m	5.45	5.04	5.86	4.02	1.43	2.3
149	neu	f	5.74	5.38	6.09	4.02	1.71	2.3
149	neg	m	1.44	1.2	1.68	1.72	-0.28	2.3
149	neg	f	1.83	1.53	2.14	1.72	0.11	2.3
149	pos	f	6.44	6.07	6.81	6.32	0.12	2.3
149	pos	m	6.76	6.6	6.93	6.32	0.44	2.3

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
84	pos	m	5.81	5.43	6.18	6.32	-0.52	2.31
84	neu	f	5.56	5.16	5.95	4.02	1.53	2.31
84	pos	f	6	5.68	6.32	6.32	-0.32	2.31
84	neg	m	1.42	1.08	1.76	1.72	-0.3	2.31
84	neg	f	1.3	1.09	1.52	1.72	-0.42	2.31
84	neu	m	5.56	5.23	5.89	4.02	1.54	2.31
30	neg	f	1.39	1.02	1.76	1.72	-0.33	2.32
30	pos	m	6.76	6.41	7.11	6.32	0.43	2.32
30	neg	m	1.14	0.99	1.29	1.72	-0.59	2.32
30	pos	f	6.75	6.45	7.05	6.32	0.43	2.32
30	neu	f	5.29	4.87	5.7	4.02	1.26	2.32
30	neu	m	5.74	5.4	6.09	4.02	1.72	2.32
177	neg	f	1.91	1.62	2.2	1.72	0.19	2.34
177	pos	m	5.55	5.04	6.05	6.32	-0.78	2.34
177	neu	f	5.31	4.92	5.69	4.02	1.28	2.34
177	neg	m	1.61	1.3	1.93	1.72	-0.11	2.34
177	pos	f	5.58	5.16	5.99	6.32	-0.74	2.34
177	neu	m	5.64	5.28	6	4.02	1.62	2.34
156	neu	m	4.94	4.51	5.38	4.02	0.92	2.35
156	neu	f	5.22	4.86	5.58	4.02	1.2	2.35
156	neg	m	2.97	2.69	3.25	1.72	1.25	2.35
156	neg	f	2.94	2.59	3.3	1.72	1.22	2.35
156	pos	f	5.91	5.37	6.44	6.32	-0.41	2.35
156	pos	m	6.37	6	6.74	6.32	0.04	2.35
150	neg	m	3.14	2.82	3.46	1.72	1.42	2.38
150	neg	f	3.14	2.82	3.46	1.72	1.42	2.38
150	neu	m	4.7	4.27	5.13	4.02	0.67	2.38
150	neu	f	5.11	4.72	5.49	4.02	1.08	2.38
150	pos	m	6.38	6.12	6.64	6.32	0.06	2.38
150	pos	f	6.36	5.99	6.74	6.32	0.04	2.38
184	neu	m	5.54	5.15	5.93	4.02	1.52	2.38
184	neu	f	5.74	5.36	6.12	4.02	1.72	2.38

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
184	pos	f	5.81	5.32	6.29	6.32	-0.52	2.38
184	neg	m	1.39	1.17	1.6	1.72	-0.34	2.38
184	neg	f	1.72	1.28	2.17	1.72	0	2.38
184	pos	m	6.27	5.91	6.63	6.32	-0.05	2.38
170	pos	f	6.88	6.7	7.06	6.32	0.56	2.39
170	neu	m	5.74	5.43	6.05	4.02	1.71	2.39
170	neg	m	2.06	1.65	2.46	1.72	0.33	2.39
170	neu	f	5.33	4.89	5.77	4.02	1.31	2.39
170	neg	f	2.39	1.96	2.82	1.72	0.67	2.39
170	pos	m	6.78	6.45	7.11	6.32	0.45	2.39
117	neu	m	5.72	5.26	6.19	4.02	1.7	2.41
117	pos	f	5.7	5.13	6.26	6.32	-0.63	2.41
117	pos	m	6.18	5.82	6.55	6.32	-0.14	2.41
117	neg	m	1.15	1.03	1.27	1.72	-0.58	2.41
117	neu	f	5.42	5	5.83	4.02	1.39	2.41
117	neg	f	1.25	0.91	1.59	1.72	-0.47	2.41
119	neg	m	2.91	2.37	3.46	1.72	1.19	2.42
119	pos	m	5.92	5.46	6.37	6.32	-0.41	2.42
119	neg	f	3.57	3.15	3.99	1.72	1.85	2.42
119	pos	f	5.86	5.52	6.2	6.32	-0.46	2.42
119	neu	f	4.22	3.9	4.55	4.02	0.2	2.42
119	neu	m	4.81	4.47	5.15	4.02	0.79	2.42
144	neu	f	4.29	3.9	4.69	4.02	0.27	2.44
144	pos	f	4.61	4.13	5.09	6.32	-1.71	2.44
144	neg	f	1.89	1.45	2.34	1.72	0.17	2.44
144	neu	m	4.42	3.98	4.85	4.02	0.39	2.44
144	pos	m	4.67	4.35	4.98	6.32	-1.66	2.44
144	neg	m	1.82	1.43	2.2	1.72	0.1	2.44
79	pos	m	5	4.48	5.52	6.32	-1.32	2.46
79	neu	f	4.53	4.18	4.87	4.02	0.5	2.46
79	neu	m	4.81	4.45	5.17	4.02	0.79	2.46
79	neg	m	1.66	1.36	1.96	1.72	-0.07	2.46

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
79	pos	f	4.48	4.06	4.9	6.32	-1.85	2.46
79	neg	f	1.74	1.47	2.01	1.72	0.02	2.46
48	neg	m	1.83	1.52	2.15	1.72	0.11	2.49
48	neu	m	5.8	5.45	6.15	4.02	1.78	2.49
48	neu	f	5.74	5.41	6.08	4.02	1.72	2.49
48	pos	f	6.27	5.83	6.71	6.32	-0.05	2.49
48	neg	f	1.48	1.21	1.74	1.72	-0.24	2.49
48	pos	m	6.36	6.05	6.67	6.32	0.04	2.49
72	neg	m	1.22	1.08	1.36	1.72	-0.5	2.5
72	neg	f	1.31	1.13	1.48	1.72	-0.42	2.5
72	neu	f	5.71	5.31	6.11	4.02	1.69	2.5
72	neu	m	5.73	5.27	6.19	4.02	1.7	2.5
72	pos	f	6.5	6.12	6.88	6.32	0.18	2.5
72	pos	m	6.47	6.23	6.71	6.32	0.15	2.5
82	pos	f	5.3	4.94	5.65	6.32	-1.03	2.51
82	neu	f	5.25	4.86	5.64	4.02	1.23	2.51
82	neg	f	2.49	2.2	2.77	1.72	0.76	2.51
82	neu	m	5	4.71	5.29	4.02	0.98	2.51
82	pos	m	5	4.67	5.33	6.32	-1.32	2.51
82	neg	m	2.39	2.11	2.68	1.72	0.67	2.51
101	neg	m	1.34	1.1	1.58	1.72	-0.38	2.53
101	pos	m	5.82	5.43	6.2	6.32	-0.51	2.53
101	neg	f	1.46	1.21	1.7	1.72	-0.27	2.53
101	neu	m	5.44	5.04	5.85	4.02	1.42	2.53
101	pos	f	5.36	4.91	5.81	6.32	-0.96	2.53
101	neu	f	5.76	5.29	6.23	4.02	1.73	2.53
85	neg	f	2.12	1.75	2.49	1.72	0.4	2.54
85	neu	f	3.69	3.46	3.93	4.02	-0.33	2.54
85	pos	f	4.86	4.51	5.21	6.32	-1.46	2.54
85	neu	m	3.68	3.45	3.91	4.02	-0.35	2.54
85	pos	m	4.44	4.18	4.71	6.32	-1.88	2.54
85	neg	m	2.37	2.04	2.69	1.72	0.65	2.54

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
125	neu	m	2.29	1.89	2.68	4.02	-1.74	2.55
125	pos	m	6.5	6.16	6.84	6.32	0.18	2.55
125	pos	f	6.51	6.21	6.81	6.32	0.19	2.55
125	neu	f	2.37	1.94	2.8	4.02	-1.65	2.55
125	neg	m	1.31	0.93	1.68	1.72	-0.42	2.55
125	neg	f	1	1	1	1.72	-0.72	2.55
140	neu	m	5.42	4.99	5.84	4.02	1.39	2.56
140	pos	m	5.98	5.66	6.29	6.32	-0.35	2.56
140	neg	m	2.83	2.59	3.06	1.72	1.11	2.56
140	pos	f	5.89	5.52	6.26	6.32	-0.43	2.56
140	neg	f	2.8	2.46	3.14	1.72	1.08	2.56
140	neu	f	5.41	4.95	5.86	4.02	1.38	2.56
83	neg	m	1.84	1.39	2.29	1.72	0.12	2.57
83	pos	f	6.06	5.68	6.43	6.32	-0.27	2.57
83	neu	f	5.81	5.39	6.22	4.02	1.78	2.57
83	pos	m	6.03	5.7	6.35	6.32	-0.3	2.57
83	neg	f	1.61	1.31	1.9	1.72	-0.12	2.57
83	neu	m	5.82	5.45	6.2	4.02	1.8	2.57
128	neu	m	4.61	4.19	5.02	4.02	0.58	2.59
128	neg	f	3.52	3.23	3.82	1.72	1.8	2.59
128	pos	f	6.05	5.69	6.42	6.32	-0.27	2.59
128	pos	m	6.25	5.83	6.67	6.32	-0.07	2.59
128	neu	f	4.61	4.13	5.08	4.02	0.58	2.59
128	neg	m	3.36	2.95	3.77	1.72	1.64	2.59
17	pos	m	6.91	6.75	7.08	6.32	0.59	2.59
17	neg	m	1.11	0.98	1.24	1.72	-0.61	2.59
17	neu	f	5.75	5.42	6.08	4.02	1.73	2.59
17	neg	f	1.65	1.31	1.99	1.72	-0.07	2.59
17	pos	f	7	7	7	6.32	0.68	2.59
17	neu	m	5.61	5.17	6.05	4.02	1.59	2.59
71	neg	m	1.42	1.2	1.63	1.72	-0.31	2.6
71	pos	m	6.26	6	6.53	6.32	-0.06	2.6

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
71	neg	f	1.56	1.3	1.81	1.72	-0.17	2.6
71	pos	f	6.08	5.62	6.55	6.32	-0.24	2.6
71	neu	f	1.55	1.31	1.79	4.02	-2.47	2.6
71	neu	m	3.33	3.05	3.61	4.02	-0.69	2.6
36	neg	f	1.67	1.33	2.01	1.72	-0.06	2.65
36	neg	m	1.49	1.26	1.71	1.72	-0.24	2.65
36	neu	f	5.81	5.37	6.24	4.02	1.78	2.65
36	neu	m	5.93	5.65	6.21	4.02	1.91	2.65
36	pos	f	6.6	6.23	6.97	6.32	0.28	2.65
36	pos	m	6.6	6.32	6.88	6.32	0.28	2.65
188	pos	f	6.47	6.11	6.83	6.32	0.15	2.69
188	neg	f	1.25	1.07	1.43	1.72	-0.47	2.69
188	neu	m	5.7	5.23	6.17	4.02	1.67	2.69
188	neu	f	5.95	5.63	6.27	4.02	1.92	2.69
188	pos	m	6.47	6.22	6.72	6.32	0.15	2.69
188	neg	m	1.06	0.98	1.13	1.72	-0.67	2.69
148	neu	f	6.03	5.65	6.4	4.02	2	2.72
148	neu	m	5.73	5.15	6.3	4.02	1.7	2.72
148	pos	f	6.5	6.13	6.87	6.32	0.18	2.72
148	neg	f	1.33	1.09	1.58	1.72	-0.39	2.72
148	neg	m	1.17	1	1.33	1.72	-0.56	2.72
148	pos	m	6.32	6.03	6.62	6.32	0	2.72
2	pos	f	6.8	6.61	6.98	6.32	0.47	2.73
2	neu	f	6	5.71	6.29	4.02	1.98	2.73
2	neg	f	1.54	1.15	1.94	1.72	-0.18	2.73
2	neu	m	5.81	5.46	6.16	4.02	1.79	2.73
2	neg	m	1.51	1.26	1.77	1.72	-0.21	2.73
2	pos	m	6.56	6.18	6.93	6.32	0.23	2.73
73	neu	f	5.28	4.86	5.7	4.02	1.25	2.73
73	neu	m	5.11	4.82	5.41	4.02	1.09	2.73
73	neg	m	2.38	2.03	2.73	1.72	0.66	2.73
73	pos	f	4.27	3.78	4.76	6.32	-2.06	2.73

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
73	pos	m	6.23	5.91	6.55	6.32	-0.09	2.73
134	neu	m	5.78	5.42	6.14	4.02	1.75	2.77
134	neu	f	5.98	5.69	6.27	4.02	1.95	2.77
134	neg	m	1.11	1.01	1.22	1.72	-0.61	2.77
134	pos	f	5.97	5.69	6.26	6.32	-0.35	2.77
134	pos	m	5.8	5.46	6.14	6.32	-0.52	2.77
134	neg	f	1.57	1.23	1.9	1.72	-0.15	2.77
19	pos	f	6.39	6.13	6.66	6.32	0.07	2.77
19	neu	m	5.64	5.23	6.05	4.02	1.62	2.77
19	neg	f	2.88	2.52	3.24	1.72	1.16	2.77
19	neu	f	5.92	5.56	6.27	4.02	1.89	2.77
19	neg	m	2.08	1.68	2.48	1.72	0.36	2.77
19	pos	m	6.3	5.87	6.73	6.32	-0.02	2.77
59	neg	f	1.88	1.58	2.19	1.72	0.16	2.8
59	pos	f	5.74	5.36	6.11	6.32	-0.59	2.8
59	neg	m	1.72	1.33	2.12	1.72	0	2.8
59	neu	f	5.86	5.49	6.23	4.02	1.84	2.8
59	pos	m	6.09	5.66	6.52	6.32	-0.23	2.8
59	neu	m	6.03	5.68	6.37	4.02	2	2.8
45	neg	f	1.33	1.05	1.61	1.72	-0.39	2.85
45	neg	m	1.47	1.14	1.81	1.72	-0.25	2.85
45	pos	m	6.42	6.06	6.78	6.32	0.09	2.85
45	pos	f	6.33	5.92	6.75	6.32	0.01	2.85
45	neu	m	6.15	5.75	6.55	4.02	2.12	2.85
45	neu	f	5.86	5.4	6.32	4.02	1.84	2.85
80	pos	m	5.81	5.41	6.2	6.32	-0.52	2.85
80	pos	f	6.09	5.69	6.49	6.32	-0.23	2.85
80	neu	f	4.17	3.8	4.53	4.02	0.14	2.85
80	neg	f	3.57	3.24	3.91	1.72	1.85	2.85
80	neg	m	3.8	3.38	4.22	1.72	2.08	2.85
80	neu	m	3.84	3.59	4.08	4.02	-0.19	2.85
175	neg	f	2.62	2.3	2.94	1.72	0.9	2.87

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
175	neu	m	5.69	5.38	6.01	4.02	1.67	2.87
175	neg	m	2.39	2.01	2.77	1.72	0.67	2.87
175	neu	f	5.94	5.64	6.25	4.02	1.92	2.87
175	pos	m	5.67	5.23	6.11	6.32	-0.66	2.87
175	pos	f	6.03	5.68	6.37	6.32	-0.3	2.87
31	neg	m	1.39	1.14	1.64	1.72	-0.33	2.88
31	neu	m	5.85	5.47	6.23	4.02	1.83	2.88
31	neu	f	6.18	5.86	6.51	4.02	2.16	2.88
31	pos	m	6.53	6.05	7.01	6.32	0.21	2.88
31	neg	f	1.56	1.26	1.85	1.72	-0.17	2.88
31	pos	f	6.69	6.35	7.04	6.32	0.37	2.88
46	neg	m	1.61	1.37	1.85	1.72	-0.12	2.88
46	neu	m	6	5.68	6.32	4.02	1.98	2.88
46	pos	m	6.69	6.52	6.87	6.32	0.37	2.88
46	neg	f	2.06	1.69	2.43	1.72	0.34	2.88
46	neu	f	6.03	5.68	6.37	4.02	2	2.88
46	pos	f	6.64	6.42	6.86	6.32	0.32	2.88
154	neg	f	2.47	2.03	2.92	1.72	0.75	2.92
154	neg	m	2.29	1.94	2.65	1.72	0.57	2.92
154	neu	f	5.31	4.89	5.72	4.02	1.28	2.92
154	pos	m	6.11	5.7	6.51	6.32	-0.22	2.92
154	neu	m	6.17	5.85	6.48	4.02	2.14	2.92
154	pos	f	5.15	4.62	5.68	6.32	-1.17	2.92
64	pos	m	6.69	6.49	6.9	6.32	0.37	2.92
64	neg	f	2.66	2.21	3.11	1.72	0.94	2.92
64	pos	f	6.19	5.83	6.56	6.32	-0.13	2.92
64	neg	m	2.3	1.92	2.69	1.72	0.58	2.92
64	neu	f	5.88	5.55	6.21	4.02	1.86	2.92
64	neu	m	5.94	5.48	6.41	4.02	1.92	2.92
3	pos	f	6.64	6.39	6.88	6.32	0.31	2.93
3	pos	m	6.58	6.26	6.91	6.32	0.26	2.93
3	neg	m	1.83	1.36	2.3	1.72	0.11	2.93

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
3	neu	m	5.97	5.54	6.41	4.02	1.95	2.93
3	neg	f	1.74	1.44	2.05	1.72	0.02	2.93
3	neu	f	6.17	5.82	6.51	4.02	2.14	2.93
54	neu	m	6.03	5.63	6.42	4.02	2	2.93
54	neu	f	6.11	5.81	6.41	4.02	2.09	2.93
54	neg	f	1.92	1.62	2.22	1.72	0.2	2.93
54	pos	m	6.54	6.28	6.8	6.32	0.22	2.93
54	pos	f	6.03	5.64	6.42	6.32	-0.29	2.93
54	neg	m	1.56	1.33	1.78	1.72	-0.17	2.93
121	neu	f	5.92	5.47	6.36	4.02	1.89	2.95
121	neg	m	1.34	1.01	1.67	1.72	-0.38	2.95
121	pos	f	6.86	6.71	7.01	6.32	0.54	2.95
121	neu	m	6.16	5.85	6.47	4.02	2.14	2.95
121	pos	m	6.56	6.12	6.99	6.32	0.23	2.95
121	neg	f	1.51	1.23	1.8	1.72	-0.21	2.95
81	neu	f	6.11	5.77	6.45	4.02	2.09	2.95
81	pos	m	6.5	6.22	6.78	6.32	0.18	2.95
81	pos	f	6.02	5.59	6.45	6.32	-0.3	2.95
81	neg	m	2.26	1.89	2.62	1.72	0.53	2.95
81	neg	f	1.8	1.55	2.05	1.72	0.08	2.95
81	neu	m	6	5.54	6.46	4.02	1.98	2.95
87	neu	f	6.09	5.8	6.37	4.02	2.06	3
87	neg	f	1.75	1.36	2.14	1.72	0.03	3
87	neg	m	2.06	1.49	2.62	1.72	0.33	3
87	neu	m	6.17	5.82	6.53	4.02	2.15	3
87	pos	f	6.46	6.05	6.87	6.32	0.14	3
87	pos	m	6.44	6.16	6.73	6.32	0.12	3
179	neg	m	2.77	2.49	3.05	1.72	1.05	3.01
179	neg	f	2.8	2.49	3.11	1.72	1.08	3.01
179	neu	f	5.54	5.16	5.92	4.02	1.52	3.01
179	neu	m	5.67	5.32	6.02	4.02	1.64	3.01
179	pos	m	5.77	5.4	6.15	6.32	-0.55	3.01

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
179	pos	f	5.11	4.68	5.54	6.32	-1.21	3.01
60	pos	m	5.94	5.46	6.42	6.32	-0.38	3.04
60	neu	f	5.56	5.17	5.94	4.02	1.53	3.04
60	neg	f	3.18	2.9	3.46	1.72	1.45	3.04
60	neg	m	3.06	2.72	3.4	1.72	1.33	3.04
60	pos	f	5.68	5.25	6.12	6.32	-0.64	3.04
60	neu	m	5.58	5.26	5.91	4.02	1.56	3.04
111	neg	f	3.03	2.73	3.32	1.72	1.31	3.05
111	pos	m	6.35	6.12	6.59	6.32	0.03	3.05
111	neu	f	5.95	5.6	6.29	4.02	1.92	3.05
111	neg	m	2.56	2.2	2.91	1.72	0.83	3.05
111	neu	m	5.82	5.36	6.27	4.02	1.8	3.05
111	pos	f	6.33	5.95	6.72	6.32	0.01	3.05
62	neg	m	1.4	1.16	1.64	1.72	-0.32	3.06
62	neu	m	6.19	5.89	6.5	4.02	2.17	3.06
62	neg	f	3.85	3.25	4.45	1.72	2.12	3.06
62	pos	f	6.19	5.7	6.69	6.32	-0.13	3.06
62	pos	m	6.34	5.96	6.72	6.32	0.02	3.06
135	neg	m	1.28	1.09	1.46	1.72	-0.44	3.08
135	neu	f	5.78	5.3	6.25	4.02	1.75	3.08
135	pos	f	5.95	5.52	6.38	6.32	-0.38	3.08
135	neu	m	6.42	6.12	6.71	4.02	2.39	3.08
135	neg	f	1.16	1	1.32	1.72	-0.56	3.08
135	pos	m	6.14	5.76	6.52	6.32	-0.18	3.08
21	neg	f	2.24	1.91	2.56	1.72	0.51	3.08
21	neu	m	5.97	5.66	6.28	4.02	1.95	3.08
21	neg	m	2.25	1.87	2.63	1.72	0.53	3.08
21	pos	m	5.61	5.2	6.01	6.32	-0.72	3.08
21	pos	f	5.42	4.93	5.91	6.32	-0.9	3.08
21	neu	f	5.97	5.58	6.37	4.02	1.95	3.08
4	pos	f	6.81	6.65	6.96	6.32	0.48	3.09
4	neg	f	1.67	1.36	1.97	1.72	-0.06	3.09

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
4	neu	f	6.08	5.81	6.36	4.02	2.06	3.09
4	neu	m	6.21	5.93	6.48	4.02	2.18	3.09
4	neg	m	1.63	1.37	1.89	1.72	-0.09	3.09
4	pos	m	6.89	6.76	7.02	6.32	0.57	3.09
160	neg	m	2.51	2.19	2.84	1.72	0.79	3.1
160	neg	f	2.7	2.37	3.02	1.72	0.97	3.1
160	pos	m	6.31	5.96	6.65	6.32	-0.02	3.1
160	neu	m	6.24	5.88	6.6	4.02	2.22	3.1
160	pos	f	6.32	6.01	6.63	6.32	-0.01	3.1
160	neu	f	5.78	5.38	6.18	4.02	1.75	3.1
97	neu	f	6.14	5.8	6.48	4.02	2.12	3.11
97	neg	f	1.29	1.05	1.54	1.72	-0.43	3.11
97	pos	f	6.66	6.46	6.86	6.32	0.33	3.11
97	neu	m	6.17	5.81	6.52	4.02	2.14	3.11
97	pos	m	6.55	6.18	6.91	6.32	0.22	3.11
97	neg	m	1.19	1.04	1.35	1.72	-0.53	3.11
49	neg	m	1.94	1.65	2.24	1.72	0.22	3.12
49	neu	f	5.97	5.63	6.32	4.02	1.95	3.12
49	pos	f	6.65	6.43	6.87	6.32	0.33	3.12
49	neg	f	2.09	1.82	2.36	1.72	0.37	3.12
49	neu	m	6.37	5.99	6.75	4.02	2.35	3.12
49	pos	m	6.72	6.55	6.89	6.32	0.4	3.12
132	pos	f	6.49	6.15	6.82	6.32	0.16	3.13
132	neu	f	6.27	6.05	6.5	4.02	2.25	3.13
132	pos	m	6.74	6.58	6.91	6.32	0.42	3.13
132	neg	m	3.82	3.26	4.38	1.72	2.1	3.13
132	neg	f	2.05	1.73	2.38	1.72	0.33	3.13
178	neg	f	1.77	1.5	2.04	1.72	0.05	3.16
178	neu	f	6.3	6.02	6.57	4.02	2.27	3.16
178	pos	m	6.23	5.94	6.52	6.32	-0.1	3.16
178	pos	f	6.06	5.64	6.47	6.32	-0.27	3.16
178	neg	m	1.8	1.55	2.05	1.72	0.08	3.16

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
178	neu	m	6.19	5.91	6.47	4.02	2.17	3.16
181	neu	f	6.29	5.99	6.6	4.02	2.27	3.2
181	neg	m	1.36	1.11	1.62	1.72	-0.36	3.2
181	pos	m	6.81	6.65	6.96	6.32	0.48	3.2
181	pos	f	6.64	6.45	6.83	6.32	0.32	3.2
181	neu	m	6.17	5.76	6.58	4.02	2.14	3.2
181	neg	f	1.61	1.35	1.86	1.72	-0.12	3.2
92	neu	f	4.82	4.29	5.35	4.02	0.8	3.21
92	pos	f	4.06	3.49	4.63	6.32	-2.26	3.21
92	pos	m	4.39	3.71	5.07	6.32	-1.93	3.21
92	neg	f	1.58	1.23	1.94	1.72	-0.14	3.21
92	neu	m	4.87	4.41	5.33	4.02	0.85	3.21
92	neg	m	1.53	1.23	1.82	1.72	-0.19	3.21
116	pos	m	5.82	5.48	6.15	6.32	-0.51	3.22
116	neg	f	2.92	2.65	3.18	1.72	1.19	3.22
116	pos	f	4.64	4.09	5.18	6.32	-1.69	3.22
116	neu	m	5.58	5.24	5.93	4.02	1.56	3.22
116	neg	m	3	2.66	3.34	1.72	1.28	3.22
116	neu	f	5.36	5.01	5.71	4.02	1.34	3.22
126	neg	m	2.11	1.79	2.43	1.72	0.39	3.23
126	pos	m	6.22	5.96	6.48	6.32	-0.1	3.23
126	neg	f	2.14	1.88	2.4	1.72	0.41	3.23
126	neu	m	6.23	5.93	6.53	4.02	2.21	3.23
126	neu	f	6.29	5.99	6.58	4.02	2.26	3.23
126	pos	f	6	5.56	6.44	6.32	-0.32	3.23
173	neu	m	6.14	5.73	6.55	4.02	2.12	3.23
173	neg	f	2.05	1.72	2.38	1.72	0.33	3.23
173	pos	m	6.63	6.39	6.87	6.32	0.31	3.23
173	pos	f	6.4	6.06	6.74	6.32	0.08	3.23
173	neu	f	6.39	6.06	6.71	4.02	2.36	3.23
173	neg	m	2.14	1.83	2.45	1.72	0.42	3.23
22	pos	f	6.58	6.32	6.85	6.32	0.26	3.27

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
22	neg	f	1.29	1.01	1.56	1.72	-0.44	3.27
22	neu	m	6.28	5.86	6.7	4.02	2.25	3.27
22	pos	m	6.7	6.43	6.98	6.32	0.38	3.27
22	neu	f	6.24	5.94	6.55	4.02	2.22	3.27
22	neg	m	1.17	0.97	1.38	1.72	-0.55	3.27
96	pos	f	5.83	5.38	6.27	6.32	-0.49	3.27
96	pos	m	6.17	5.82	6.53	6.32	-0.15	3.27
96	neu	f	5.93	5.66	6.21	4.02	1.91	3.27
96	neg	f	3.12	2.73	3.5	1.72	1.4	3.27
96	neg	m	2.61	2.32	2.91	1.72	0.89	3.27
96	neu	m	6.03	5.72	6.34	4.02	2	3.27
50	pos	m	5.25	4.91	5.59	6.32	-1.07	3.29
50	neg	m	2.22	1.86	2.58	1.72	0.5	3.29
50	neu	m	5.94	5.6	6.28	4.02	1.92	3.29
50	neg	f	2.53	2.19	2.86	1.72	0.81	3.29
50	neu	f	5.21	4.83	5.59	4.02	1.19	3.29
50	pos	f	4.41	4.06	4.75	6.32	-1.92	3.29
24	neu	m	6.36	6.12	6.6	4.02	2.34	3.3
24	neu	f	6.27	6.02	6.52	4.02	2.25	3.3
24	pos	m	6.82	6.67	6.96	6.32	0.49	3.3
24	neg	f	1.63	1.36	1.9	1.72	-0.09	3.3
24	neg	m	1.71	1.45	1.98	1.72	-0.01	3.3
24	pos	f	6.67	6.36	6.97	6.32	0.34	3.3
130	neg	f	1.56	1.23	1.88	1.72	-0.17	3.31
130	pos	f	6.26	5.83	6.7	6.32	-0.06	3.31
130	neu	m	6.34	6.02	6.67	4.02	2.32	3.31
130	pos	m	6.53	6.15	6.91	6.32	0.2	3.31
130	neu	f	6.36	6.01	6.71	4.02	2.34	3.31
130	neg	m	1.58	1.31	1.86	1.72	-0.14	3.31
102	neg	m	2.4	2.04	2.76	1.72	0.68	3.37
102	pos	m	6.39	6.02	6.75	6.32	0.06	3.37
102	neu	m	6.36	6.12	6.6	4.02	2.34	3.37

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
102	neu	f	6.16	5.7	6.63	4.02	2.14	3.37
102	neg	f	2.57	2.13	3.01	1.72	0.85	3.37
102	pos	f	5.97	5.52	6.42	6.32	-0.35	3.37
108	neg	m	2.95	2.65	3.26	1.72	1.23	3.37
108	neg	f	3.11	2.7	3.52	1.72	1.39	3.37
108	neu	f	5.97	5.57	6.38	4.02	1.95	3.37
108	pos	f	6.19	5.78	6.61	6.32	-0.13	3.37
108	pos	m	6.11	5.67	6.55	6.32	-0.22	3.37
108	neu	m	6.03	5.66	6.4	4.02	2.01	3.37
180	neg	m	2.94	2.59	3.29	1.72	1.22	3.38
180	neu	f	6.03	5.69	6.36	4.02	2	3.38
180	neg	f	3.06	2.75	3.37	1.72	1.33	3.38
180	pos	f	6.31	6.03	6.59	6.32	-0.02	3.38
180	neu	m	6.06	5.67	6.45	4.02	2.03	3.38
180	pos	m	6.3	5.99	6.6	6.32	-0.03	3.38
176	neg	f	2.44	2.11	2.77	1.72	0.72	3.4
176	neu	f	6.36	6.08	6.64	4.02	2.34	3.4
176	neg	m	1.92	1.52	2.32	1.72	0.19	3.4
176	pos	f	6.34	6.01	6.67	6.32	0.02	3.4
176	neu	m	6.36	6.11	6.61	4.02	2.34	3.4
176	pos	m	6.06	5.56	6.56	6.32	-0.26	3.4
103	pos	m	6.58	6.27	6.9	6.32	0.26	3.42
103	neg	f	1.82	1.45	2.18	1.72	0.09	3.42
103	neu	m	6.31	5.99	6.62	4.02	2.28	3.42
103	pos	f	6.83	6.71	6.96	6.32	0.51	3.42
103	neg	m	1.7	1.41	1.99	1.72	-0.03	3.42
103	neu	f	6.5	6.26	6.74	4.02	2.48	3.42
55	neu	f	6.41	6.16	6.66	4.02	2.39	3.42
55	neu	m	6.42	6.17	6.67	4.02	2.39	3.42
55	pos	m	6.77	6.57	6.97	6.32	0.45	3.42
55	neg	f	1.97	1.68	2.26	1.72	0.25	3.42
55	neg	m	1.75	1.49	2.01	1.72	0.03	3.42

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	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
55	pos	f	6.46	6.11	6.8	6.32	0.13	3.42
163	neu	m	6.32	6.05	6.59	4.02	2.3	3.43
163	neg	f	1.24	1.05	1.43	1.72	-0.48	3.43
163	neg	m	1.21	0.99	1.43	1.72	-0.51	3.43
163	neu	f	6.42	6.14	6.69	4.02	2.39	3.43
163	pos	f	6.67	6.4	6.94	6.32	0.34	3.43
163	pos	m	6.72	6.43	7.01	6.32	0.4	3.43
107	neg	m	1.7	1.43	1.98	1.72	-0.02	3.44
107	neu	f	6.6	6.36	6.84	4.02	2.58	3.44
107	neu	m	6.29	6.01	6.56	4.02	2.26	3.44
107	neg	f	1.89	1.5	2.28	1.72	0.17	3.44
107	pos	f	6.25	6.02	6.48	6.32	-0.07	3.44
107	pos	m	6.43	6.17	6.69	6.32	0.11	3.44
141	neg	f	1.6	1.31	1.89	1.72	-0.12	3.44
141	neu	f	6.51	6.23	6.79	4.02	2.49	3.44
141	pos	f	6.36	5.98	6.74	6.32	0.04	3.44
141	neu	m	6.33	5.99	6.67	4.02	2.31	3.44
141	pos	m	6.66	6.43	6.89	6.32	0.34	3.44
141	neg	m	1.31	1.14	1.49	1.72	-0.41	3.44
147	neg	m	2.39	1.99	2.79	1.72	0.66	3.45
147	neu	f	6.2	5.95	6.45	4.02	2.18	3.45
147	neu	m	6.34	6.01	6.67	4.02	2.32	3.45
147	neg	f	2.78	2.4	3.15	1.72	1.06	3.45
147	pos	f	6.36	6.05	6.67	6.32	0.04	3.45
147	pos	m	6.81	6.66	6.96	6.32	0.49	3.45
89	neg	f	1.52	1.26	1.78	1.72	-0.2	3.49
89	neg	m	2.03	1.48	2.57	1.72	0.31	3.49
89	pos	m	6.11	5.61	6.62	6.32	-0.21	3.49
89	neu	m	6.46	6.14	6.77	4.02	2.43	3.49
89	neu	f	6.49	6.15	6.82	4.02	2.46	3.49
89	pos	f	6.22	5.86	6.57	6.32	-0.11	3.49
104	neg	f	3.13	2.81	3.46	1.72	1.41	3.54

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	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
104	neu	m	4.61	4.27	4.95	4.02	0.59	3.54
104	pos	f	4.14	3.71	4.57	6.32	-2.18	3.54
104	pos	m	4.78	4.38	5.18	6.32	-1.55	3.54
104	neu	f	4.97	4.61	5.33	4.02	0.95	3.54
104	neg	m	3.18	2.89	3.47	1.72	1.46	3.54
25	neu	f	6.29	6	6.59	4.02	2.27	3.57
25	neg	m	2.55	2.12	2.97	1.72	0.82	3.57
25	neu	m	6.58	6.33	6.83	4.02	2.56	3.57
25	pos	f	6.19	5.87	6.51	6.32	-0.13	3.57
25	neg	f	2.26	1.94	2.58	1.72	0.54	3.57
25	pos	m	6.5	6.21	6.79	6.32	0.18	3.57
61	pos	m	6.64	6.41	6.86	6.32	0.31	3.57
61	neg	m	1.31	1.12	1.51	1.72	-0.41	3.57
61	neu	m	6.61	6.42	6.81	4.02	2.59	3.57
61	neg	f	4.12	3.5	4.75	1.72	2.4	3.57
61	pos	f	6.47	6.14	6.81	6.32	0.15	3.57
137	neg	m	1.64	1.25	2.03	1.72	-0.08	3.59
137	neg	f	1.71	1.42	1.99	1.72	-0.02	3.59
137	pos	m	6.61	6.24	6.97	6.32	0.28	3.59
137	pos	f	6.68	6.47	6.89	6.32	0.36	3.59
137	neu	m	6.61	6.36	6.86	4.02	2.59	3.59
137	neu	f	6.47	6.21	6.74	4.02	2.45	3.59
185	neg	f	1.5	1.05	1.95	1.72	-0.22	3.6
185	neu	m	6.4	6.11	6.69	4.02	2.38	3.6
185	pos	f	6.86	6.72	7	6.32	0.54	3.6
185	neg	m	1.09	0.91	1.27	1.72	-0.63	3.6
185	neu	f	6.54	6.27	6.81	4.02	2.52	3.6
185	pos	m	6.76	6.56	6.95	6.32	0.43	3.6
192	neg	m	1.59	1.27	1.92	1.72	-0.13	3.61
192	pos	m	6.69	6.48	6.89	6.32	0.36	3.61
192	pos	f	6.57	6.31	6.83	6.32	0.25	3.61
192	neg	f	2.61	2.27	2.95	1.72	0.89	3.61

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	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
192	neu	m	6.82	6.66	6.98	4.02	2.8	3.61
192	neu	f	6.08	5.73	6.44	4.02	2.06	3.61
118	neu	m	6.62	6.35	6.89	4.02	2.6	3.63
118	neu	f	6.44	6.16	6.73	4.02	2.42	3.63
118	neg	f	1.63	1.4	1.86	1.72	-0.09	3.63
118	neg	m	1.31	1.12	1.51	1.72	-0.41	3.63
118	pos	f	5.98	5.63	6.32	6.32	-0.35	3.63
118	pos	m	5.83	5.41	6.26	6.32	-0.49	3.63
167	neu	m	6.66	6.45	6.87	4.02	2.63	3.65
167	pos	f	6.24	5.9	6.57	6.32	-0.09	3.65
167	neg	m	2.31	2	2.61	1.72	0.58	3.65
167	pos	m	6.36	6	6.72	6.32	0.04	3.65
167	neu	f	6.4	6.14	6.66	4.02	2.38	3.65
167	neg	f	2.32	2.03	2.6	1.72	0.6	3.65
93	pos	f	6.63	6.29	6.97	6.32	0.31	3.69
93	pos	m	6.63	6.39	6.87	6.32	0.31	3.69
93	neu	f	6.57	6.35	6.78	4.02	2.55	3.69
93	neu	m	6.61	6.34	6.88	4.02	2.59	3.69
93	neg	m	1.39	1.15	1.63	1.72	-0.33	3.69
93	neg	f	1.32	1.1	1.55	1.72	-0.4	3.69
43	neg	f	1.12	1.01	1.23	1.72	-0.6	3.7
43	pos	f	6.67	6.45	6.89	6.32	0.34	3.7
43	neg	m	1.18	1.04	1.33	1.72	-0.54	3.7
43	neu	f	6.42	6.11	6.72	4.02	2.39	3.7
43	pos	m	6.89	6.78	6.99	6.32	0.57	3.7
43	neu	m	6.65	6.48	6.82	4.02	2.63	3.7
171	pos	f	6.03	5.56	6.5	6.32	-0.29	3.9
171	neu	f	6.48	6.24	6.71	4.02	2.45	3.9
171	neg	m	3.03	2.69	3.36	1.72	1.31	3.9
171	pos	m	6.34	5.9	6.78	6.32	0.02	3.9
171	neu	m	6.42	6.15	6.68	4.02	2.39	3.9
171	neg	f	3.03	2.67	3.39	1.72	1.3	3.9

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	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
166	neu	f	6.77	6.61	6.93	4.02	2.75	3.93
166	neu	m	6.8	6.64	6.96	4.02	2.78	3.93
166	neg	m	1.67	1.31	2.02	1.72	-0.06	3.93
166	neg	f	1.73	1.47	1.99	1.72	0.01	3.93
166	pos	f	6.65	6.39	6.9	6.32	0.33	3.93
166	pos	m	6.5	6.15	6.85	6.32	0.18	3.93
58	neg	f	1.26	1.07	1.46	1.72	-0.46	3.97
58	pos	f	6.63	6.31	6.96	6.32	0.31	3.97
58	neg	m	1.44	0.98	1.91	1.72	-0.28	3.97
58	neu	f	6.94	6.87	7.02	4.02	2.92	3.97
58	neu	m	6.64	6.42	6.86	4.02	2.62	3.97
58	pos	m	6.15	5.63	6.67	6.32	-0.17	3.97
5	neu	m	6.85	6.73	6.97	4.02	2.83	3.98
5	neg	f	1.61	1.23	1.98	1.72	-0.12	3.98
5	pos	f	6.94	6.87	7.02	6.32	0.62	3.98
5	neg	m	1.63	1.17	2.1	1.72	-0.09	3.98
5	pos	m	7	7	7	6.32	0.68	3.98
5	neu	f	6.67	6.33	7.01	4.02	2.64	3.98
47	neu	f	6.77	6.61	6.93	4.02	2.75	4.03
47	pos	m	6.69	6.45	6.94	6.32	0.37	4.03
47	neg	m	2.11	1.71	2.52	1.72	0.39	4.03
47	neu	m	6.89	6.75	7.02	4.02	2.86	4.03
47	neg	f	1.68	1.42	1.94	1.72	-0.04	4.03
47	pos	f	6.73	6.47	6.99	6.32	0.41	4.03
20	neg	f	1.76	1.47	2.06	1.72	0.04	5.04
20	pos	m	6.61	6.2	7.01	6.32	0.28	5.04
20	pos	f	2.89	2.58	3.21	6.32	-3.43	5.04
20	neg	m	1.86	1.37	2.36	1.72	0.14	5.04
20	neu	m	6.64	6.45	6.83	4.02	2.62	5.04
20	neu	f	6.61	6.39	6.84	4.02	2.59	5.04
112	neg	f	6.31	6.04	6.57	1.72	4.58	5.06
112	pos	f	5.97	5.63	6.32	6.32	-0.35	5.06

APPENDIX A

	Valence	Gender Agent	Mean Valence	Lower	Upper	Center	Distance	Mean Distance
112	pos	m	6.51	6.26	6.77	6.32	0.19	5.06
112	neu	m	5.52	5.13	5.91	4.02	1.5	5.06
112	neu	f	5.36	4.95	5.77	4.02	1.34	5.06
112	neg	m	2.38	2.11	2.65	1.72	0.66	5.06
157	neg	m	2.26	1.87	2.65	1.72	0.53	5.16
157	pos	m	6.17	5.77	6.56	6.32	-0.16	5.16
157	neu	f	6.25	5.94	6.56	4.02	2.23	5.16
157	neu	m	6.14	5.81	6.46	4.02	2.11	5.16
157	pos	f	2.23	1.99	2.46	6.32	-4.1	5.16
157	neg	f	2.06	1.75	2.37	1.72	0.33	5.16
158	neu	m	6.43	6.19	6.68	4.02	2.41	5.42
158	pos	m	6.31	5.89	6.72	6.32	-0.02	5.42
158	neg	f	1.91	1.64	2.19	1.72	0.19	5.42
158	neg	m	1.94	1.55	2.34	1.72	0.22	5.42
158	pos	f	2.16	1.93	2.39	6.32	-4.16	5.42
158	neu	f	6.5	6.27	6.73	4.02	2.48	5.42
158	neu	f	6.5	6.27	6.73	4.02	2.48	5.43
158	pos	m	6.31	5.89	6.72	6.32	-0.02	5.43
158	pos	f	2.16	1.93	2.39	6.32	-4.16	5.43

Appendix B

Table B1

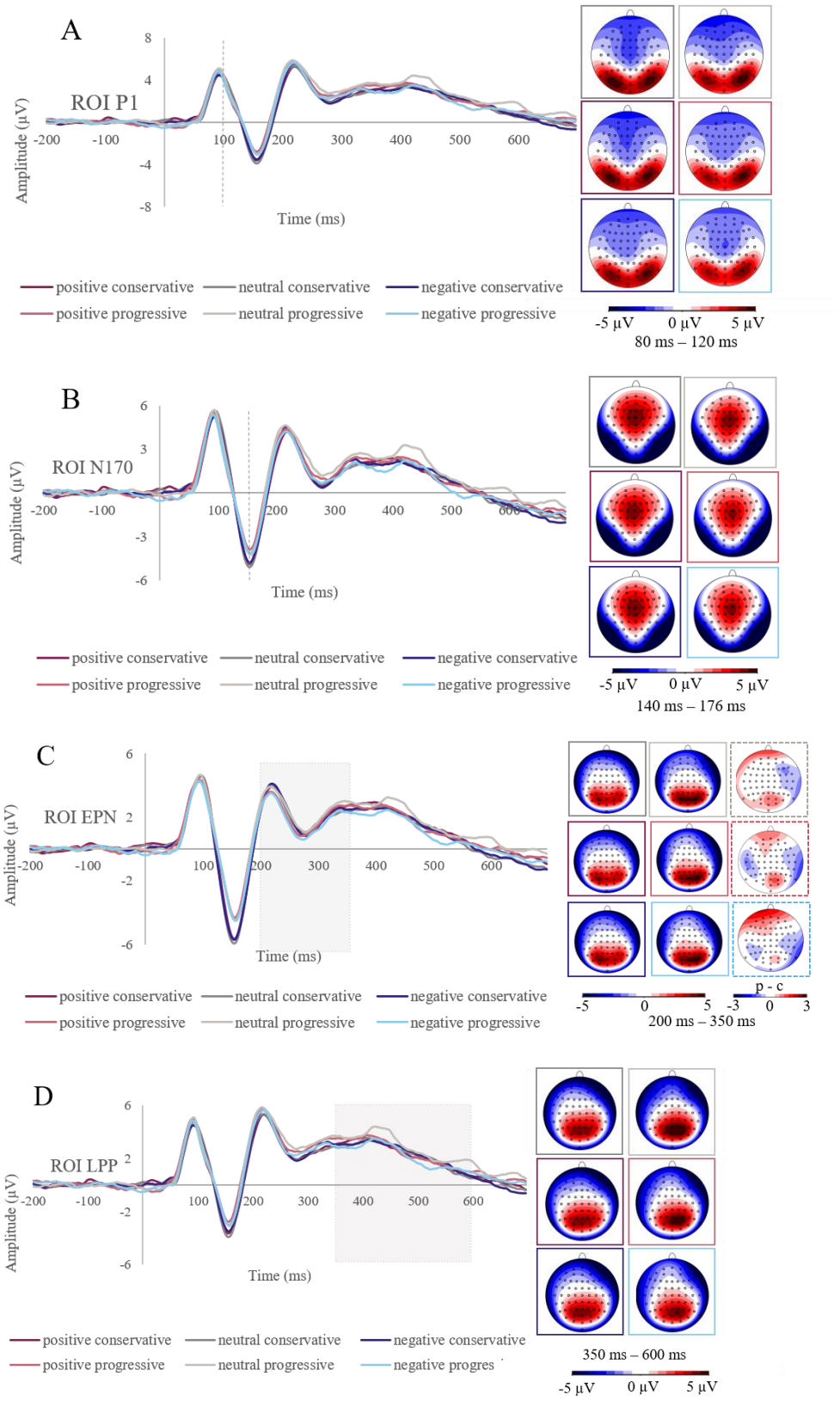
Results of the GLMMs for the P100, N170, and EPN before association with a scenario

	P100					N170					EPN				
Predictors	*Estimates*	*CI*	*SE*	*z*	*p*	*Estimates*	*CI*	*SE*	*z*	*p*	*Estimates*	*CI*	*SE*	*z*	*p*
(Intercept)	6.05	4.38 – 7.72	0.85	7.09	(1)	-7.40	-8.69 – -6.11	0.66	-11.25	(1)	2.24	1.08 – 3.41	0.59	3.78	(1)
[neg]	-0.24	-0.70 – 0.22	0.23	-1.03	.301	-0.07	-0.47 – 0.33	0.20	-0.33	.742	0.03	-0.41 – 0.48	0.23	0.15	.879
[pos]	-0.14	-0.60 – 0.32	0.23	-0.59	.554	0.16	-0.24 – 0.56	0.20	0.78	.437	0.08	-0.36 – 0.53	0.23	0.37	.714
[progressive]	-0.35	-2.72 – 2.02	1.21	-0.29	.771	1.25	-0.57 – 3.07	0.93	1.34	.179	0.23	-1.42 – 1.88	0.84	0.28	.782
[neg] *[progressive]	0.41	-0.24 – 1.06	0.33	1.24	.216	-0.02	-0.59 – 0.54	0.29	-0.08	.935	-0.61	-1.24 – 0.02	0.32	-1.90	.057
[pos] *[progressive]	0.47	-0.18 – 1.12	0.33	1.42	.156	-0.11	-0.68 – 0.45	0.29	-0.39	.697	-0.43	-1.05 – 0.20	0.32	-1.33	.184

(1) not shown because of being of very limited interpretability

Figure B1

Mean amplitudes and topographies time-locked to the first presentation of the unassociated face for the (A) P100, (B) N170, (C) EPN, and (D) LPP



Appendix C

Table C1

Sociodemographic characteristics of the participants that were included in the analyses

	Germany (N=551)	Italy (N=269)	Total (N=820)
Age (Years)			
Mean (SD)	31.0 (11.9)	35.5 (12.4)	32.5 (12.3)
Median [Min, Max]	27.0 [18.0, 79.0]	30.0 [18.0, 78.0]	28.0 [18.0, 79.0]
Gender			
Male	150 (27.2%)	77 (28.6%)	227 (27.7%)
Female	398 (72.2%)	192 (71.4%)	590 (72.0%)
Other	3 (0.5%)	0 (0%)	3 (0.4%)
Occupation			
Student	223 (40.5%)	64 (23.8%)	287 (35.0%)
Edu/Res	94 (17.1%)	56 (20.8%)	150 (18.3%)
Art/Entert./Sport/Media	21 (3.8%)	5 (1.9%)	26 (3.2%)
Health care	41 (7.4%)	43 (16.0%)	84 (10.2%)
Military	0 (0%)	0 (0%)	0 (0%)
Comm./Social serv./Politics	42 (7.6%)	7 (2.6%)	49 (6.0%)
Finance/Business	12 (2.2%)	10 (3.7%)	22 (2.7%)
Industry	21 (3.8%)	9 (3.3%)	30 (3.7%)
Services	27 (4.9%)	13 (4.8%)	40 (4.9%)
Transport	3 (0.5%)	2 (0.7%)	5 (0.6%)
Cleaning	1 (0.2%)	2 (0.7%)	3 (0.4%)
Other	56 (10.2%)	47 (17.5%)	103 (12.6%)
Unemployed	10 (1.8%)	11 (4.1%)	21 (2.6%)
Highest educational level			
None	1 (0.2%)	0 (0%)	1 (0.1%)

APPENDIX C

Table C1

Sociodemographic characteristics of the participants that were included in the analyses

	Germany (N=551)	Italy (N=269)	Total (N=820)
Primary	2 (0.4%)	2 (0.7%)	4 (0.5%)
Secondary	262 (47.5%)	52 (19.3%)	314 (38.3%)
Bachelor	142 (25.8%)	48 (17.8%)	190 (23.2%)
Master	89 (16.2%)	121 (45.0%)	210 (25.6%)
PhD	20 (3.6%)	43 (16.0%)	63 (7.7%)
Other	35 (6.4%)	3 (1.1%)	38 (4.6%)
Pre-existing condition			
Yes	104 (18.9%)	32 (11.9%)	136 (16.6%)
No	447 (81.1%)	237 (88.1%)	684 (83.4%)
Infection status			
Self	0 (0%)	1 (0.4%)	1 (0.1%)
Known person	31 (5.6%)	34 (12.6%)	65 (7.9%)
No	520 (94.4%)	234 (87.0%)	754 (92.0%)
Religiousness			
Mean (SD)	21.8 (29.3)	31.1 (32.6)	24.9 (30.8)
Median [Min, Max]	5.00 [1.00, 100]	18.0 [1.00, 100]	8.00 [1.00, 100]

APPENDIX C

Table C2

Summary of moral scenarios of the GLMMs

	Old GP					Stockpiling					Market Regulation					Price Gouging				
Predictors	*Estimates*	*std. Error*	*CI*	*z value*	*p*	*Estimates*	*std. Error*	*CI*	*z value*	*p*	*Estimates*	*std. Error*	*CI*	*z value*	*p*	*Estimates*	*std. Error*	*CI*	*z value*	*p*
intercept	0.82	0.06	0.68 – 0.92		[1]	-1.39	0.05	-1.49 – -1.28		[1]	1.11	0.06	0.99 – 1.22		[1]	-2.00	0.06	-2.12 – -1.89		[1]
country (Italy)[2]	-0.38	0.12	-0.59 – -0.13	-3.21	0.001	0.02	0.10	-0.17 – 0.22	0.18	0.860	-0.78	0.11	-0.97 – -0.58	-7.33	<0.001	-0.14	0.10	-0.34 – 0.05	-1.36	0.173
assessment period (T2)[3]	0.20	0.07	0.08 – 0.33	3.10	0.002	0.05	0.06	-0.07 – 0.16	0.80	0.425	-0.59	0.07	-0.71 – -0.45	-8.97	<0.001	0.30	0.06	0.19 – 0.42	5.15	<0.001
assessment period (T3)[3]	0.02	0.07	-0.11 – 0.15	0.27	0.786	0.05	0.06	-0.07 – 0.17	0.88	0.381	-0.59	0.07	-0.71 – -0.46	-8.89	<0.001	0.29	0.06	0.17 – 0.40	4.82	<0.001
age[4]	0.00	0.06	-0.11 – 0.12	-0.01	0.995	0.14	0.05	0.04 – 0.22	2.82	0.005	0.27	0.05	0.16 – 0.36	4.92	<0.001	-0.10	0.05	-0.21 – -0.01	-2.00	0.046
fear[5]	0.17	0.06	0.06 – 0.26	2.98	0.003	0.07	0.05	-0.02 – 0.17	1.42	0.157	-0.05	0.05	-0.15 – 0.06	-0.90	0.371	-0.04	0.05	-0.14 – 0.05	-0.91	0.363
country (Italy)*assessment period (T2)	0.11	0.12	-0.12 – 0.35	0.94	0.349	0.04	0.10	-0.16 – 0.25	0.38	0.701	-0.19	0.12	-0.44 – 0.04	-1.63	0.103	-0.02	0.11	-0.24 – 0.19	-0.22	0.824
country (Italy)*assessment period (T3)	0.35	0.12	0.11 – 0.56	2.87	0.004	0.15	0.10	-0.06 – 0.35	1.44	0.151	0.01	0.12	-0.21 – 0.24	0.12	0.903	-0.01	0.11	-0.23 – 0.21	-0.11	0.912
assessment period (T2)*age	0.08	0.06	-0.02 – 0.19	1.48	0.139	0.02	0.05	-0.07 – 0.12	0.36	0.720	-0.16	0.05	-0.26 – -0.05	-2.96	0.003	0.03	0.05	-0.08 – 0.14	0.58	0.561
assessment period (T3)*age	0.04	0.06	-0.07 – 0.14	0.66	0.513	0.08	0.05	-0.01 – 0.18	1.74	0.082	-0.20	0.06	-0.30 – -0.08	-3.54	<0.001	-0.03	0.05	-0.13 – 0.08	-0.57	0.568
country (Italy)*age	-0.30	0.09	-0.47 – -0.12	-3.27	0.001	-0.05	0.07	-0.18 – 0.10	-0.64	0.522	0.02	0.08	-0.13 – 0.17	0.27	0.785	0.10	0.08	-0.05 – 0.25	1.38	0.169
assessment period (T2)*fear	-0.04	0.06	-0.16 – 0.07	-0.71	0.477	0.01	0.05	-0.10 – 0.11	0.25	0.805	-0.05	0.06	-0.16 – 0.05	-0.87	0.382	0.05	0.05	-0.05 – 0.15	1.01	0.313
assessment period (T3)*fear	0.01	0.06	-0.10 – 0.12	0.17	0.866	0.12	0.05	0.01 – 0.21	2.25	0.024	0.01	0.06	-0.10 – 0.12	0.18	0.854	0.07	0.05	-0.04 – 0.16	1.26	0.206
country (Italy)*fear	0.00	0.07	-0.12 – 0.15	0.02	0.984	0.05	0.06	-0.07 – 0.17	0.87	0.383	0.18	0.07	0.06 – 0.32	2.55	0.011	-0.08	0.06	-0.19 – 0.04	-1.31	0.191

[1] not shown because of being of very limited interpretability
[2] comparison with the reference level (Germany)
[3] comparisons with the reference level (T1)
[4] log- and z-transformed to mean of zero and a standard deviation of one
[5] z-transformed to mean of zero and a standard deviation of one

APPENDIX C

Table C2 ***(cont.)***

Summary of moral scenarios of the GLMMs

	Triage					Target of Prevention Measures					Strictness of Measures				
Predictors	*Estimates*	*std. Error*	*CI*	*z value*	*p*	*Estimates*	*std. Error*	*CI*	*z value*	*p*	*Estimates*	*std. Error*	*CI*	*z value*	*p*
intercept	0.95	0.06	0.82 – 1.07		[1]	1.02	0.06	0.88 – 1.12		[1]	-0.44	0.05	-0.54 – -0.33		[1]
country (Italy)[2]	-0.87	0.12	-1.09 – -0.63	-7.50	<0.001	-0.16	0.11	-0.38 – 0.06	-1.40	0.161	0.32	0.10	0.12 – 0.51	3.32	0.001
assessment period (T2)[3]	-0.65	0.07	-0.78 – -0.52	-9.82	<0.001										
assessment period (T3)[3]	-0.64	0.07	-0.77 – -0.52	-9.64	<0.001	-0.01	0.06	-0.14 – 0.10	-0.24	0.813	0.12	0.06	0.01 – 0.24	2.03	0.042
age[4]	-0.01	0.06	-0.12 – 0.10	-0.17	0.867	0.07	0.06	-0.05 – 0.19	1.18	0.240	0.13	0.05	0.03 – 0.23	2.55	0.011
fear[5]	0.02	0.05	-0.09 – 0.13	0.38	0.708	0.31	0.06	0.19 – 0.41	5.53	<0.001	-0.37	0.05	-0.46 – -0.28	-7.59	<0.001
country (Italy)*assessment period (T2)	0.82	0.12	0.58 – 1.05	6.91	<0.001										
country (Italy)*assessment period (T3)	0.65	0.12	0.41 – 0.87	5.41	<0.001	-0.08	0.11	-0.30 – 0.13	-0.68	0.496	-0.01	0.10	-0.20 – 0.19	-0.09	0.925
assessment period (T2)*age	-0.02	0.06	-0.13 – 0.08	-0.35	0.724										
assessment period (T3)*age	0.09	0.05	-0.01 – 0.20	1.68	0.093	-0.03	0.05	-0.12 – 0.08	-0.47	0.636	-0.03	0.05	-0.13 – 0.06	-0.66	0.509
country (Italy)*age	0.05	0.09	-0.13 – 0.22	0.52	0.602	0.06	0.10	-0.12 – 0.25	0.64	0.524	-0.21	0.08	-0.37 – -0.05	-2.57	0.010
assessment period (T2)*fear	0.09	0.06	-0.03 – 0.20	1.56	0.118										
assessment period (T3)*fear	0.03	0.06	-0.09 – 0.15	0.47	0.635	-0.04	0.05	-0.15 – 0.06	-0.78	0.437	-0.02	0.05	-0.11 – 0.08	-0.41	0.684
country (Italy)*fear	-0.01	0.07	-0.15 – 0.13	-0.15	0.882	-0.04	0.08	-0.18 – 0.13	-0.46	0.646	0.21	0.07	0.07 – 0.34	2.94	0.003

[1] not shown because of being of very limited interpretability
[2] comparison with the reference level (Germany)
[3] comparisons with the reference level (T1)
[4] log- and z-transformed to mean of zero and a standard deviation of one
[5] z-transformed to mean of zero and a standard deviation of one

APPENDIX C

Table C3

Summary of moral scenarios for the reduced GLMMs

	Old GP					Stockpiling					Price Gouging					Triage				
Predictors	*Estimates*	*std. Error*	*CI*	*z value*	*p*	*Estimates*	*std. Error*	*CI*	*z value*	*p*	*Estimates*	*std. Error*	*CI*	*z value*	*p*	*Estimates*	*std. Error*	*CI*	*z value*	*p*
intercept	0.82	0.06	0.69 – 0.94		[1]	-1.40	0.05	-1.49 – -1.30		[1]	-2.01	0.06	-2.11 – -1.90		[1]	0.96	0.06	0.81 – 1.07		[1]
country (Italy)[2]	-0.39	0.11	-0.60 – -0.17	-3.42	0.001	0.08	0.07	-0.06 – 0.22	1.18	0.239	-0.15	0.08	-0.29 – 0.01	-1.95	0.051	-0.89	0.11	-1.11 – -0.68	-8.03	<0.001
assessment period (T2)[3]	0.19	0.06	0.06 – 0.31	2.98	0.003	0.06	0.05	-0.03 – 0.14	1.16	0.246	0.31	0.05	0.21 – 0.40	6.34	<0.001	-0.65	0.06	-0.77 – -0.51	-9.94	<0.001
assessment period (T3)[3]	0.01	0.06	-0.12 – 0.14	0.15	0.881	0.10	0.05	0.01 – 0.19	2.06	0.040	0.29	0.05	0.20 – 0.38	5.99	<0.001	-0.66	0.07	-0.79 – -0.53	-10.02	<0.001
age[4]	0.04	0.05	-0.06 – 0.13	0.75	0.454	0.16	0.03	0.09 – 0.22	4.72	<0.001	-0.07	0.04	-0.14 – 0.00	-2.08	0.037	0.03	0.04	-0.05 – 0.11	0.68	0.496
fear[5]	0.15	0.04	0.08 – 0.22	4.44	<0.001	0.07	0.04	-0.01 – 0.15	1.70	0.090	-0.03	0.03	-0.08 – 0.03	-0.93	0.351	0.05	0.03	-0.01 – 0.12	1.62	0.106

Note: no reduced model was fitted for the moral scenario Market Regulation since all predictors were in at least one significant interaction.

[1] not shown because of being of very limited interpretability
[2] comparison with the reference level (Germany)
[3] comparisons with the reference level (T1)
[4] log- and z-transformed to mean of zero and a standard deviation of one
[5] z-transformed to mean of zero and a standard deviation of one

Table C3 (cont.)

Summary of moral scenarios for the reduced GLMMs

	Target of Prevention Measures					Strictness of Measures				
Predictors	*Estimates*	*std. Error*	*CI*	*z value*	*p*	*Estimates*	*std. Error*	*CI*	*z value*	*p*
intercept	1.04	0.06	0.91 – 1.14		[1]	-0.44	0.05	-0.53 – -0.34		[1]
country (Italy)[2]	-0.19	0.10	-0.38 – 0.00	-1.95	0.051	0.32	0.08	0.15 – 0.47	3.91	<0.001
assessment period (T2)[3]										
assessment period (T3)[3]	-0.04	0.05	-0.14 – 0.06	-0.75	0.451	0.12	0.05	0.02 – 0.21	2.43	0.015
age[4]	0.08	0.04	-0.01 – 0.15	1.73	0.084	0.12	0.04	0.03 – 0.20	2.54	0.011
fear[5]	0.28	0.04	0.19 – 0.34	7.10	<0.001	-0.38	0.04	-0.46 – -0.30	-9.12	<0.001

[1] not shown because of being of very limited interpretability
[2] comparison with the reference level (Germany)
[3] comparisons with the reference level (T1)
[4] log- and z-transformed to mean of zero and a standard deviation of one
[5] z-transformed to mean of zero and a standard deviation of one

APPENDIX C

Table C4

Summary of the results of the additional models

	Sit. Assessment - Health					Sit. Assessment - Economy					Sit. Assessment - Personal					Behavior Changes				
Predictors	*Estimates*	*std. Error*	*CI*	*t value*	*p*	*Estimates*	*std. Error*	*CI*	*t value*	*p*	*Estimates*	*std. Error*	*CI*	*t value*	*p*	*Estimates*	*std. Error*	*CI*	*t value*	*p*
intercept	61.82	0.83	60.18 – 63.44		[1]	31.6	0.97	29.73 – 33.65		[1]	47.68	0.86	45.95 – 49.40		[1]	65.35	0.94	63.59 – 67.05		[1]
country (Italy)[2]	-0.63	1.49	-3.65 – 2.03	-0.42	0.673	-8.94	1.73	-12.32 – -5.79	-5.14	<0.001	-3.92	1.53	-6.85 – -0.76	-2.55	0.011	4.54	1.68	1.44 – 7.59	2.69	0.007
assessment period (T3)[3]	2.78	0.96	0.90 – 4.71	2.87	0.004	9.77	1.19	7.41 – 12.07	8.22	<0.001	5.60	1.04	3.60 – 7.64	5.35	<0.001	-13.34	1.02	-15.35 – -11.56	-13.00	<0.001
age[4]	0.44	0.79	-1.10 – 1.99	0.56	0.578	0.22	0.91	-1.57 – 2.11	0.24	0.810	-0.31	0.81	-1.88 – 1.24	-0.38	0.706	4.98	0.90	3.21 – 6.66	5.54	<0.001
fear[5]	1.87	0.76	0.41 – 3.34	2.44	0.015	2.69	0.90	0.97 – 4.43	2.99	0.003	-0.34	0.79	-1.84 – 1.11	-0.43	0.670	3.36	0.85	1.66 – 4.95	3.94	<0.001
country (Italy)*assessment period (T3)	3.64	1.71	0.32 – 6.81	2.12	0.034	-2.90	2.10	-6.91 – 1.30	-1.38	0.169	2.60	1.85	-1.14 – 5.94	1.40	0.162	5.25	1.82	1.74 – 8.60	2.88	0.004
assessment period (T3)*age	-1.33	0.80	-2.98 – 0.18	-1.65	0.099	-2.34	0.99	-4.38 – -0.46	-2.36	0.019	-2.35	0.87	-4.09 – -0.58	-2.69	0.007	0.59	0.85	-1.02 – 2.16	0.69	0.492
country (Italy)*age	-1.35	1.22	-3.60 – 1.24	-1.10	0.272	0.77	1.38	-2.18 – 3.16	0.56	0.578	-0.24	1.22	-2.63 – 1.98	-0.20	0.844	-2.46	1.42	-5.15 – 0.40	-1.72	0.085
assessment period (T3)*fear	-1.45	0.82	-3.04 – 0.22	-1.77	0.077	-1.21	1.00	-3.25 – 0.74	-1.21	0.227	-0.56	0.88	-2.23 – 1.15	-0.64	0.524	-2.56	0.87	-4.25 – -0.89	-2.93	0.004
country (Italy)*fear	-2.20	1.11	-4.31 – 0.10	-1.98	0.048	-1.81	1.28	-4.45 – 0.75	-1.41	0.159	0.08	1.13	-2.13 – 2.31	0.07	0.941	2.23	1.25	-0.28 – 4.55	1.77	0.077
age*fear	1.47	0.53	0.53 – 2.55	2.79	0.005	0.96	0.61	-0.26 – 2.20	1.56	0.119	0.28	0.54	-0.68 – 1.29	0.52	0.602	-0.47	0.59	-1.67 – 0.67	-0.79	0.432

[1] not shown because of being of very limited interpretability
[2] comparison with the reference level (Germany)
[3] comparisons with the reference level (T1)
[4] log- and z-transformed to mean of zero and a standard deviation of one
[5] z-transformed to mean of zero and a standard deviation of one

APPENDIX C

Table C4 (cont.)

Summary of the results of the additional models

	Confidence					Long-Term Effects - Personal					Long-Term Effects - Society				
Predictors	*Estimates*	*std. Error*	*CI*	*t value*	*p*	*Estimates*	*std. Error*	*CI*	*t value*	*p*	*Estimates*	*std. Error*	*CI*	*t value*	*p*
intercept	62.35	0.96	60.46 – 64.07		[1]	57.02	1.07	54.92 – 59.12		[1]	73.96	0.86	72.26 – 75.66		[1]
country (Italy)[2]	-8.80	1.72	-12.24 – -5.30	-5.10	<0.001	2.14	1.91	-1.60 – 5.89	1.12	0.262	5.11	1.54	2.08 – 8.13	3.32	0.001
assessment period (T3)[3]	1.93	1.05	-0.12 – 3.89	1.82	0.069										
age[4]	-0.95	0.91	-2.70 – 0.76	-1.04	0.300	3.75	1.08	1.63 – 5.86	3.48	0.001	0.47	0.87	-1.24 – 2.18	0.54	0.589
fear[5]	-6.06	0.87	-7.83 – -4.37	-6.94	<0.001	5.71	1.06	3.63 – 7.79	5.38	<0.001	4.26	0.86	2.58 – 5.94	4.98	<0.001
country (Italy)*assessment period (T3)	2.02	1.87	-1.63 – 5.63	1.07	0.283										
assessment period (T3)*age	-0.52	0.88	-2.20 – 1.21	-0.59	0.555										
country (Italy)*age	0.82	1.45	-1.97 – 3.49	0.57	0.570	-6.27	1.92	-10.04 – -2.50	-3.27	0.001	-4.32	1.55	-7.36 – -1.29	-2.79	0.005
assessment period (T3)*fear	0.50	0.90	-1.29 – 2.27	0.55	0.580										
country (Italy)*fear	-3.51	1.28	-5.97 – -0.97	-2.73	0.006	0.87	1.89	-2.84 – 4.57	0.46	0.646	-1.21	1.52	-4.20 – 1.78	-0.79	0.428
age*fear	0.49	0.61	-0.68 – 1.79	0.80	0.424	0.83	0.91	-0.95 – 2.62	0.92	0.358	1.14	0.73	-0.30 – 2.57	1.55	0.121

[1] not shown because of being of very limited interpretability
[2] comparison with the reference level (Germany)
[3] comparisons with the reference level (T1)
[4] log- and z-transformed to mean of zero and a standard deviation of one
[5] z-transformed to mean of zero and a standard deviation of one

APPENDIX C

TableC 5

Summary of results for the reduced additional models

	Sit. Assessment - Economy					Sit. Assessment - Personal					Behavior Changes					Confidence				
Predictors	*Estimates*	*std. Error*	*CI*	*t value*	*p*	*Estimates*	*std. Error*	*CI*	*t value*	*p*	*Estimates*	*std. Error*	*CI*	*t value*	*p*	*Estimates*	*std. Error*	*CI*	*t value*	*p*
intercept	32.04	0.91	30.22 – 33.87		[1]	47.24	0.80	45.72 – 48.68		[1]	65.32	0.94	63.44 – 67.18		[1]	62.02	0.91	60.26 – 63.82		[1]
country (Italy)[2]	-10.23	1.36	-12.91 – -7.51	-7.48	<0.001	-2.61	1.20	-5.10 – -0.44	-2.17	0.030	4.20	1.66	1.08 – 7.52	2.52	0.012	-7.62	1.42	-10.35 – -4.94	-5.35	<0.001
assessment period (T3)[3]	8.81	0.96	6.85 – 10.58	9.13	<0.001	6.44	0.85	4.64 – 8.12	7.56	<0.001	-13.36	1.02	-15.30 – -11.50	-13.14	<0.001	2.57	0.86	0.81 – 4.16	2.98	0.003
age[4]	0.53	0.80	-1.03 – 2.13	0.67	0.505	-0.51	0.71	-1.89 – 0.77	-0.72	0.471	4.58	0.66	3.33 – 5.96	6.96	<0.001	-1.00	0.67	-2.32 – 0.21	-1.50	0.134
fear[5]	1.54	0.60	0.29 – 2.66	2.57	0.010	-0.59	0.53	-1.61 – 0.38	-1.11	0.265	4.07	0.73	2.71 – 5.65	5.53	<0.001	-5.78	0.73	-7.35 – -4.42	-7.85	<0.001

Note: no reduced model was fitted for Situation Assessment - Health since all predictors were in at least one significant interaction.

[1] not shown because of being of very limited interpretability
[2] comparison with the reference level (Germany)
[3] comparisons with the reference level (T1)
[4] log- and z-transformed to mean of zero and a standard deviation of one
[5] z-transformed to mean of zero and a standard deviation of one

Table C5 (cont.)

Summary of the results of the reduced additional models

	Long-Term Effects - Personal					Long-Term Effects - Society				
Predictors	*Estimates*	*std. Error*	*CI*	*t value*	*p*	*Estimates*	*std. Error*	*CI*	*t value*	*p*
intercept	56.95	1.06	54.86 – 59.04		[1]	73.82	0.86	72.14 – 75.51		[1]
country (Italy)[2]	2.26	1.91	-1.48 – 5.99	1.18	0.237	5.16	1.54	2.14 – 8.18	3.36	0.001
assessment period (T3)[3]										
age[4]	3.64	1.06	1.55 – 5.73	3.42	0.001	0.26	0.86	-1.43 – 1.95	0.30	0.765
fear[5]	6.01	0.87	4.31 – 7.72	6.92	<0.001	3.90	0.70	2.53 – 5.28	5.57	<0.001

[1] not shown because of being of very limited interpretability
[2] comparison with the reference level (Germany)
[3] comparisons with the reference level (T1)
[4] log- and z-transformed to mean of zero and a standard deviation of one
[5] z-transformed to mean of zero and a standard deviation of one

Appendix D

Table D1

Number and Percentage of state of residence, highest education and size of hometown by inhabitants

State	*N*	%
Baden-Württemberg	116	11.11
Bayern	81	7.76
Berlin	24	2.30
Brandenburg	25	2.39
Bremen	16	1.53
Hamburg	13	1.25
Hessen	46	4.41
Mecklenburg-Vorpommern	16	1.53
Niedersachsen	364	34.87
Nordrhein-Westfalen	113	10.82
Rheinland-Pfalz	13	1.25
Saarland	16	1.53
Sachsen	65	6.23
Sachsen-Anhalt	35	3.35
Schleswig-Holstein	47	4.50
Thüringen	54	5.17

Highest Education	*N*	%
None	4	0.38
Lower secondary	28	2.68
Secondary	81	7.76
Higher secondary	357	34.20
Vocational training	186	17.82
University	369	35.34
PhD	19	1.82

Size of hometown	*N*	%
1 - 1000	90	8.62
1000 - 5000	144	13.79
5000 - 10 000	86	8.24
10 000 - 100 000	260	24.90
> 100 000	464	44.44

APPENDIX D

Table D2

List of all items and corresponding factor loadings

	Item	Coding	Inclusion	Factor loadings of oblimin rotated PCA		
				Factor 1	Factor 2	Factor 3
1	Ich bin für die Wiedereinführung einer allgemeinen Wehrpflicht, um die Sicherheit Deutschlands zu gewährleisten (I am in favor of reintroducing compulsory military service to ensure Germany's security.)	c	no			
2	Deutschland benötigt eine strenge Einwanderungspolitik. (Germany needs a strict immigration policy.)	c	no			
3	Deutschland muss gestärkt werden und unabhängig von anderen Staaten sein. (Germany must be strengthened and be independent of other states.)	c	yes	**.51**	-.05	.36
4	Wir brauchen ein Bildungssystem, das an Leistung orientiert ist. (We need an education system that is based on performance.)	c	yes	**.41**	.04	.14
5	Unternehmen sollten steuerlich entlastet werden. (Companies should be granted a tax relief.)	c	no			
6	Deutschland braucht eine starke Industrie und muss wirtschaftlich wettbewerbsfähig bleiben. (Germany needs a strong industry and must remain economically competitive)	c	yes	**.60**	-.01	-.08
7	Familien und Familienplanung müssen unterstützt werden. (Families and family planning must be supported.)	c	no			
8	Für besonders schwere Verbrechen sollte die Todesstrafe erlaubt sein. (The death penalty should be allowed for particularly serious crimes.)	c	yes	.23	.02	**.44**
9	Menschen, die viel leisten, sollen auch viel verdienen und nicht alles an den Sozialstaat abgeben. (People who achieve a lot should also earn a lot and not give everything to the welfare state.)	c	yes	**.51**	-.01	.19
10	Kontinuität und Stabilität in der Gesellschaft stärken Deutschland.	c	yes	**.59**	-.02	-.06

	(Continuity and stability in the society strengthen Germany.)					
11	Deutschland fußt auf christlichen Werten, die staatlich geschützt werden müssen. (Germany is based on Christian values that must be protected by the state)	c	yes	**.58**	.17	-.09
12	Es muss eine Bezahlung für Arbeit geben, die sich an dem orientiert, was eine Person leistet. (Payment for work must be based on a person's accomplishments.)	c	no			
13	Alle Menschen müssen gleiche Chancen auf dem Arbeitsmarkt haben. (All people must have equal opportunities on the job market.)	p	no			
14	Jeder Mensch muss die Freiheit haben, sich anhand der eigenen Persönlichkeit und Vorstellungen zu entfalten. (Every person must have the freedom to develop on the basis of their own personality and ideas.)	p	no			
15	Minderheiten müssen toleriert und integriert werden. (Minorities must be tolerated and integrated.)	p	yes	.01	.17	**.68**
16	Deutschland muss vorwiegend als Teil der Europäischen Union handeln, statt als Nationalstaat. (Germany must act predominantly as part of the European Union, rather than as a national state.)	p	yes	.18	.04	**.40**
17	Das Gesundheitssystem muss ausgebaut werden. (The health care system must be expanded.)	p	no			
18	Klima- und Umweltschutz müssen gestärkt und finanziell gefördert werden. (Climate and environmental protection must be strengthened and financially supported.)	p	yes	-.01	.28	**.42**
19	Männer und Frauen sollten den gleichen Lohn für gleiche Arbeit bekommen. (Men and women should receive equal pay for equal work.)	p	no			
20	Alternative Bildungswege sollten strukturell und finanziell gefördert werden. (Alternative educational paths should be supported structurally and financially.)	p	no			
21	Die Homo-Ehe muss der Hetero-Ehe gleichgestellt sein. (Gay marriage must be equal to straight marriage.)	p	yes	.04	**.89**	-.04

22	Politik muss demokratisch gestaltet werden, sodass eine Beteiligung aller möglich ist. (Politics must be shaped democratically so that participation is possible for everyone.)	p	no			
23	Das Recht auf freie Entfaltung und Meinungsfreiheit ist eine Notwendigkeit. (The right to free development and freedom of expression is a necessity.)	p	no			
24	Sozialhilfeleistungen müssen ausgeweitet werden, um die soziale Ungleichheit zu verringern. (Social benefits must be expanded to reduce social inequality.)	p	no			
25	Traditionen und Werte sind wichtig und müssen bewahrt werden. (Traditions and values are important and must be preserved.)	c	yes	**.78**	.11	-.10
26	Klassische Geschlechterrollen sollten beibehalten werden. (Classic gender roles should be maintained.)	c	yes	.22	**.46**	.10
27	Es muss Regeln und Disziplin geben. (There must be rules and discipline.)	c	yes	**.66**	- .01	-.09
28	Die klassische Ehe zwischen Mann und Frau muss geschützt werden. (The classic marriage between a man and a woman must be protected.)	c	no			
29	Respekt gegenüber Höhergestellten und Älteren ist eine wichtige Tugend. (Respect for superiors and elders is an important virtue.)	c	yes	**.68**	- .04	-.07
30	Körperliche Unversehrtheit und finanzielle Absicherung müssen gewährleistet werden. (Physical integrity and financial security must be guaranteed.)	p	no			
31	Deutschland ist unsere Heimat, deren Wert als Nation es zu schützen gilt. (Germany is our home, whose value as a nation must be protected.)	c	yes	**.74**	-.04	.23
32	Die Absicherung deutscher Staatsbürger muss gewährleistet werden, bevor auf die Bedürfnisse anderer Menschen eingegangen werden kann. (The protection of German citizens must be ensured before the needs of others can be addressed.)	c	no			
33	Wir müssen unsere eigene Kultur bewahren und uns vor Entfremdung schützen. (We must preserve our own	c	yes	**.59**	.06	.35

	culture and protect ourselves from alienation.)					
34	Statussymbole sind wichtig, um den eigenen Stand in der Gesellschaft zu präsentieren. (Status symbols are important to present one's standing in society.)	c	no			
35	Der Zusammenhalt einer Familie ist wichtig und sollte einen hohen Stellenwert in der Gesellschaft haben. (Family cohesion is important and should have a high value in society.)	c	yes	**.64**	.00	-.12
36	Alle Geschlechter müssen bei ihrer Berufswahl und in ihrem Beruf gleiche Chancen haben. (All genders must have equal opportunities in their career choice and in their profession.)	p	no			
37	Innovationen und Reformen sollten gefördert werden. (Innovation and reforms should be encouraged.)	p	no			
38	Erziehung sollte anti-autoritär gestaltet werden, sodass Kinder alle Entfaltungsmöglichkeiten haben. (Education should be anti-authoritarian so that children have every opportunity to develop.)	p	no			
39	Ein progressives Ehe- und Sexualverständnis ist wichtig. Alle Formen der Ehe sollten gleichgestellt sein. (A progressive understanding of marriage and sex is important. All forms of marriage should be equal.)	p	yes	.00	**.84**	.00
40	Ein offener Umgang mit anderen Meinungen und Kulturen ist wichtig. (An open attitude towards other opinions and cultures is important.)	p	yes	-.03	.06	**.69**
41	Neben dem klassischen Familienbild müssen auch andere Familienforme (z.B. Patchwork, gleichgeschlechtliche Eltern) ebenso akzeptiert und unterstützt werden. (In addition to the classic family image, other family forms (e.g. patchwork, same-sex parents) must also be accepted and supported.)	p	yes	-.07	**.83**	.04
42	Sozial Schwächere müssen systematisch gestärkt und unterstützt werden, um soziale Gerechtigkeit sicherzustellen. (The socially disadvantaged must be systematically strengthened and supported to ensure social justice.)	p	no			

43	Es muss gleiche Chancen auf Bildung für alle Menschen geben. (There must be equal opportunities to education for all people.)	p	no			
44	Jeder einzelne Mensch sollte das Recht auf Selbstverwirklichung und Unabhängigkeit haben. (Every single person should have the right to self-realization and independence.)	p	no			
45	Geschlecht ist nicht nur in zwei Kategorien einteilbar, deshalb müssen auch andere Geschlechteridentitäten anerkannt werden. (Gender cannot just be divided into two categories, thus other gender identities need to be recognized.)	p	yes	.10	**.48**	.21
46	Frauen sollten das Recht haben, bis zu einem gesetzlich festgelegten Zeitpunkt der Embryonalentwicklung abzutreiben.	p	no			
47	Bildung muss allen, unabhängig von der eigenen sozialen Situation, kostenfrei zu Verfügung stehen.	p	no			

Note. Factor loadings printed in bold indicate the factor the item belongs to.

APPENDIX D

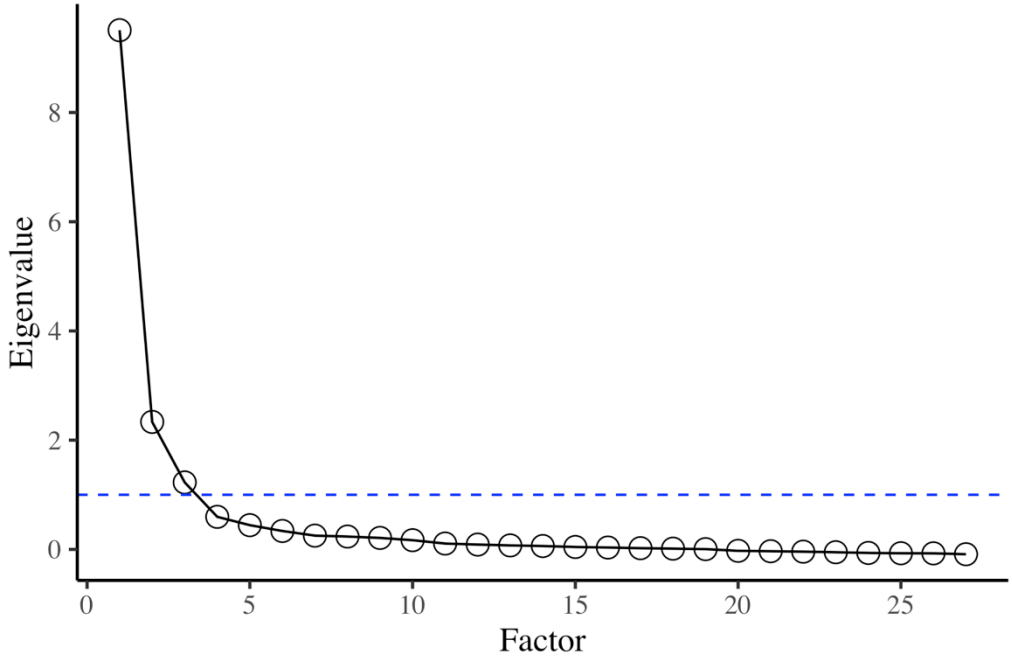
Table D3

Correlation matrix of all items that went into the EFA

Item	1	2	3	4	6	8	9	10	11	15	16	18	21	25	26	27	28	29	31	32	33	34	35	39	40	41	45
1	1																										
2	.49	1																									
3	.45	.61	1																								
4	.37	.40	.36	1																							
6	.30	.39	.38	.35	1																						
8	.41	.48	.40	.28	.15	1																					
9	.34	.52	.43	.40	.36	.37	1																				
10	.29	.41	.38	.27	.36	.19	.31	1																			
11	.37	.42	.35	.30	.32	.19	.28	.32	1																		
15	.40	.51	.41	.28	.13	.39	.31	.19	.24	1																	
16	.28	.45	.44	.14	.15	.30	.28	.17	.20	.37	1																
18	.31	.37	.27	.23	.15	.24	.22	.13	.19	.45	.32	1															
21	.27	.31	.27	.20	.14	.22	.22	.16	.29	.37	.24	.37	1														
25	.38	.53	.46	.31	.39	.29	.40	.43	.54	.28	.28	.21	.30	1													
26	.33	.38	.32	.28	.15	.25	.29	.17	.34	.37	.21	.33	.50	.34	1												
27	.32	.43	.37	.32	.39	.24	.35	.37	.32	.17	.20	.13	.15	.46	.21	1											
28	.38	.44	.33	.28	.25	.28	.31	.30	.49	.34	.23	.28	.53	.47	.52	.32	1										
29	.30	.45	.36	.29	.30	.28	.36	.33	.37	.14	.23	.10	.15	.51	.24	.44	.33	1									
31	.50	.67	.62	.38	.46	.39	.49	.46	.50	.40	.38	.29	.29	.64	.39	.46	.47	.50	1								
32	.51	.73	.61	.37	.36	.46	.49	.36	.40	.50	.45	.33	.28	.51	.37	.40	.41	.42	.68	1							
33	.51	.72	.61	.39	.39	.44	.47	.41	.50	.50	.39	.34	.38	.60	.44	.40	.51	.43	.75	.72	1						
34	.30	.30	.30	.35	.21	.24	.28	.12	.24	.26	.11	.25	.21	.26	.34	.16	.28	.20	.32	.31	.33	1					
35	.30	.40	.32	.20	.29	.22	.36	.34	.35	.16	.23	.09	.16	.52	.22	.39	.36	.43	.46	.36	.38	.14	1				
39	.26	.29	.24	.16	.13	.21	.20	.12	.28	.40	.25	.37	.77	.26	.47	.16	.50	.12	.25	.28	.35	.19	.17	1			
40	.34	.43	.35	.23	.08	.37	.25	.11	.17	.57	.32	.40	.31	.21	.26	.12	.27	.15	.38	.45	.47	.26	.13	.30	1		
41	.24	.25	.21	.20	.11	.20	.18	.11	.21	.38	.21	.38	.74	.23	.47	.11	.44	.07	.22	.25	.30	.23	.08	.69	.30	1	
45	.32	.39	.31	.24	.18	.30	.27	.16	.24	.45	.32	.39	.52	.28	.42	.23	.39	.22	.32	.36	.34	.18	.16	.51	.29	.49	1

Figure D1

Screeplot for the unrotated EFA.



Note. The dashed line marks an eigenvalue of 1.

Declaration of own work

In the present thesis, I integrated five separate manuscripts (Study 1-5). I am first author in all three manuscripts. The table below highlights my responsibilities and contributions to each manuscript. Please note that my co-authors were involved in each process as well, meaning that every step is not my contribution alone but the result of a shared project.

Study 1: A novel and large set of everyday German moral scenarios of negative, neutral and positive behavior

The study of this chapter has been conducted in collaboration with Annekathrin Schacht

Study 2: Personality shapes our moral judgments: The influence of empathy, political orientation, and gender

The study of this chapter has been conducted in collaboration with Jana Birner, Michael R. Waldmann, and Annekathrin Schacht

Study 3: How we judge moral agents: an investigation of emotion and political orientation using EEG

The study of this chapter has been conducted in collaboration with Jana Thiel, Tamara Ringel, Thomas Schultze, Michael R. Waldmann und Annekathrin Schacht

Study 4: Moral dilemmas in the wild: a cross-cultural longitudinal study during the corona pandemic

The study of this chapter has been conducted in collaboration with Francesco Grassi, Yasaman Rafiee, Michael R. Waldmann, and Annekathrin Schacht

Study 5: Development and Validation of a New German Questionnaire for the Assessment of Political Orientation

The study of this chapter has been conducted in collaboration with Florian Gagsch, Mareike Spengler, Arezoo Pooresmaeili, and Annekathrin Schacht

Own contribution

	Study 1	Study 2	Study 3	Study 4	Study 5
Study Design	✓	✓	✓	✓	✓
Data Collection	-	✓	-	✓	✓
Data Analysis	✓	✓	✓	-	✓
Manuscript Writing	✓	✓	✓	✓	✓

Doctoral student's declaration

I hereby declare that all parts of this dissertation were written by myself, that assistance of third parties was only accepted if scientifically justifiable and acceptable in regards to the examination regulations, and that all sources have been quoted.

Göttingen, 2021

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Ronja Demel