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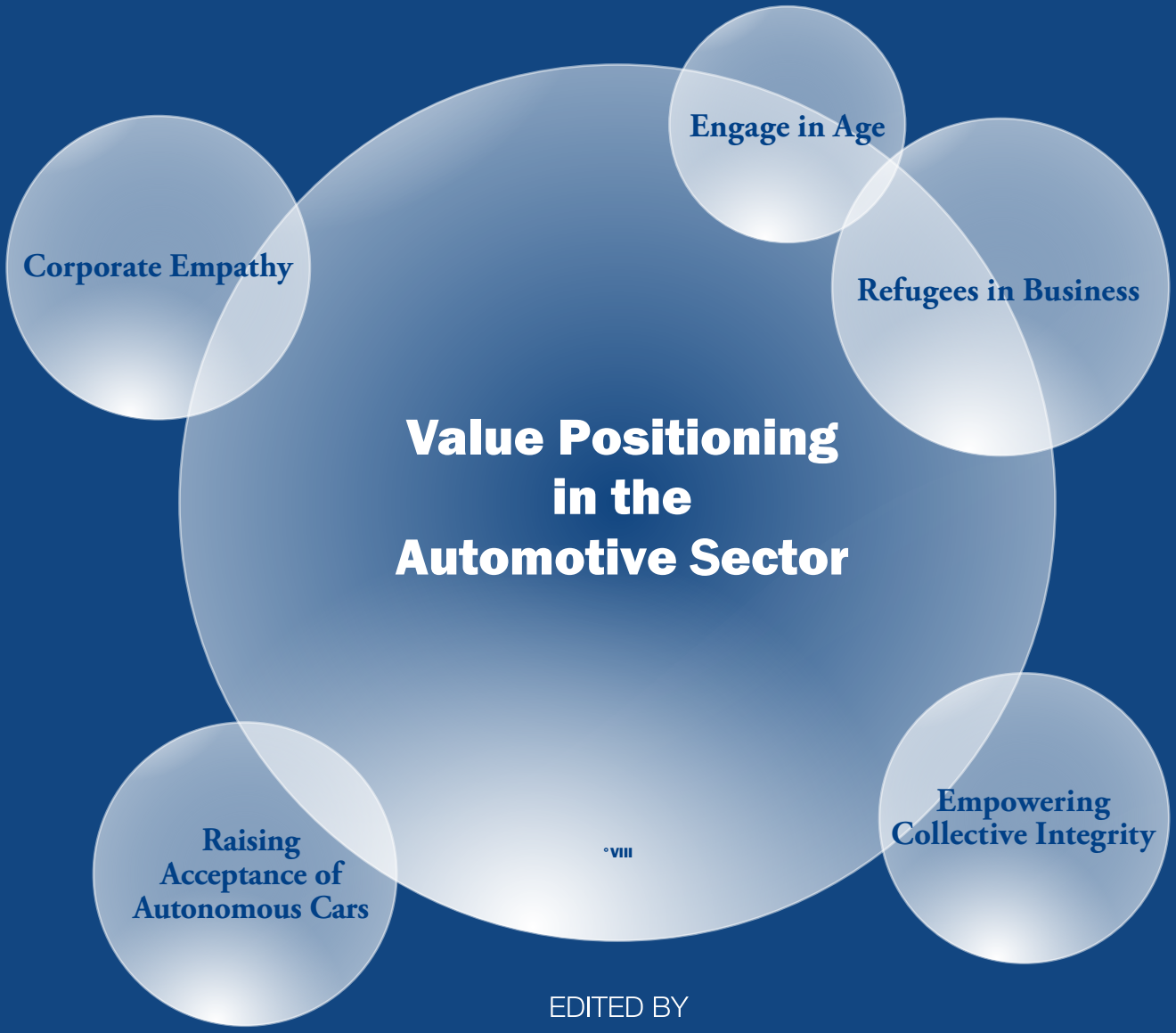

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Rethink –

Value Positioning in the Automotive Sector

Edited by Alexander Brink und David Rohrmann

https://i-em.de

Visual concept by Julius W. Habenschuss, realisation by Leonhard Holzinger

First Online Edition published 2025

ISBN 978-3-9820784-3-4

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Value Positioning in the Automotive Sector

EDITED BY ALEXANDER BRINK • DAVID ROHRMANN

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Corporate Empathy

VALUE POSITIONING IN THE AUTOMOTIVE SECTOR

Corporate Empathy

How Empathy Shapes Moral Behaviour in Business Practice

Teresa Lauren Buckard, Maximilian Hösl and Dominik Wedber

Keywords

Empathy, Intrinsic Motivation, Moral Behaviour, Positive Psychology, Pro-social Preferences

To ensure moral behaviour, corporations focus on restrictions. Compliance management systems, codes of conduct and such more have been implemented to give managers and employees moral guidance. However, these tools are not sufficient to enable intrinsic moral capacities of humans. Our approach makes use of the social capacity empathy. We emphasise the connection between empathy and moral behaviour. We combine this moral concept with business ethics and psychological insights. A concept of corporate empathy is established as a model constituting innovative ideas for leadership methods and stakeholder efforts. Corporate empathy therefore focuses on individual capacities for empathy, which are the precondition for pro-social preferences and intrinsically motivated moral behaviour. The aim is to set up a concept to overcome current goals that only foster awareness of moral behaviour, instead of enabling it.

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1. *Introduction – A Need for Empathy*

> "I think we should talk more about our empathy deficit – the ability to put ourselves in someone else's shoes; to see the world through those who are different from us" (Obama 2006).

In 2006, in his former role as the Senator of Illinois, Barack Obama addressed the topic of empathy in a speech to graduates of Northwestern University. Senator Obama highlighted the lack of empathy in parts of society, at least in parts of public political discourse, to show the relevance of focusing on the cultivation of empathy for improving social conditions in the world. This statement displays two basic assumptions that are also important for this paper: first, there is a lack of empathic thinking in some parts of society, and second, there is hope that this lack of empathy can be fixed by an (empathic) change of perspective.

Corporations have focused much on the egoistic part of human character. Even though corporations have achieved enormous results in the implementation of business ethical measures in recent decades (cf. Bertelsmann Stiftung 2015: 37 f.), the efforts were focused primarily on restrictions. They should ensure employees' moral behaviour or, in other words, should avoid malpractice. This led to tremendous sets of rules, guidelines and various compliance management systems. Besides all their advantages, by focusing merely on restrictions, corporations miss the chance to realise an employee's moral potential, given human capacity for empathy and pro-social preferences. For such a new orientation of business practice, we have to overcome the traditional idea of economic theory that assumes only egoistic preferences for modelling human behaviour. A replacement of these assumptions by pro-social preferences leads to completely new conclusions in theory and opportunities for change in business practice. It would be an improvement to govern businesses in a way that enable employees to act morally on their own by using the intrinsic motivation that arises from empathic capacities and pro-social preferences.

First, we look at Adam Smith's ideas about the capacity of empathy within human beings as the precondition for moral behaviour and connect Smith's classical concept with modern scientific insights of psychology to specify our understanding of empathy (Sections 2.1 and 2.2). This focus on empathic capacities establishes a positive idea of human nature (Section 3.1). For implementation efforts, a clear understanding of corporate incentive systems is necessary (Section 3.2). This leads to the proper framework which fosters pro-social preferences as an intrinsic

motivation for empathic behaviour (Section 3.3). Our comprehensive approach is established as 'corporate empathy' (Section 4). Consequently, innovative ideas for an empathic change in current business practice with a focus on leadership development (Section 5.1) and on stakeholder dialogues (Section 5.2) are presented. We also clarify our understanding of corporate empathy with some remarks on recent approaches in business practice (Section 5.3). The focus is finally put on the need for further research within debates surrounding empathy in corporations (Section 6).

2. Empathy – Precondition for Moral Behaviour

2.1 Adam Smith – Sympathy as Empathy

Historical Remarks on Sympathy

The notions of 'sympathy' and 'empathy' have formed part of many moral debates (cf. Nakao/Itakura 2009). Famously, the first great theory of empathy was published in 1759 by Adam Smith in Edinburgh, Scotland. In his work 'The Theory of Moral Sentiments', Smith originally defined the notion of sympathy as a human motive for moral behaviour. As his very first assumption, Smith claimed:

> "How selfish soever man may be supposed, there are evidently some principles in his nature, which interest him in the fortune of others" (Smith 1759: 3).

At this stage, we would like to highlight this basic assumption for our framework of moral behaviour: human nature might have selfish components, but it is hard to deny that there is also a capacity for altruism. Sympathy, according to Smith, generally means a 'fellow-feeling'[1] for any 'passion'[2] of another person. This passion is not limited to pity or compassion, so sympathy is way more than just a feeling of other's suffering (cf. ibid: 5). Following Smith while ignoring his distinct understanding of passions, it is crucial for his moral account to assume that human beings

1 Roughly, it can be stated that Smith used the notions of 'sympathy' and 'fellow-feeling' synonymously (cf. Smith 1759: xxii).

2 According to Evensky's summary of Smith's idea: "passions are the visible expression of another's sentiments, and sentiments are those 'affection[s] of the heart, from which any action proceeds'" (Evensky 2005: 113).

have an innate capacity to identify the feelings of others. Moreover, this capacity enables humans to sympathise with others and to have an ethical motivation, which is a necessary condition for moral behaviour (cf. Churcher 2015: 39 f.).

Some authors have simplified this understanding of empathy and sympathy by claiming they are equal (cf. Funk 2016: 54 ff.). Even if Smith's work can be seen as a first structured framework for the moral debate of empathy, and even if it might be true that, historically, the notion of sympathy was often replaced by empathy (cf. Debes 2015), it is helpful for our concern to draw a clear distinction by referring to the state of the art in psychology, as we will do next.

Empathy in Modern Understanding

In modern times, scientific research focuses on different types of empathy, which replace the notion of sympathy in a specific way. As an internationally-respected empathy researcher, American psychologist Martin Hoffman identifies five different modes of empathy: (1) mimicry, (2) conditioning, (3) direct association, (4) verbally mediated association and (5) perspective taking. According to Hoffman, Smith's concept of sympathy can be associated with two of these five modern terms: mimicry and perspective taking (cf. Hoffman 2008: 441 f.):

1. Mimicry is an automatic response to the emotional expression of another person. This empathic response can occur as a change in one's facial, vocal or postural expressions. This is summarised by Smith's investigation of a crowd of people who are fascinated by the movements of a dancer on a rope. In this scene, the people's empathic affection leads to an imitation of the dancer's movements by the people themselves (cf. Smith 1759: 4).
2. Conditioning can be described as the conditioned form of mimicry. Expressions like anger or disappointment can immediately lead to another person's empathic response, because of conditioned experiences in the past.
3. Direct association means having an empathic ability because of one's own experiences with another person who has gone through similar experiences.
4. Verbally mediated association describes the empathic response of one person to another through communication (spoken or written), with a content-related emotional response.
5. Perspective taking requires higher cognitive skills, because the empathic response can only arise through an extensive imagination, which occurs in three different forms: self-focused (very intense empathic response because of one's own past), other-focused (more of a cognitive

attendance to someone's feelings, live-conditions and behaviour) and the co-occurrence of both self- and other-focused imagination (combining the emotional intensity of self-focus and sustained attention of other-focused).

This distinction will help us to sharpen our understanding of empathy. While the first three modes are passive and 'primitive' forms of empathy, because they are involuntary and automatic, sophisticated attributes like language and cognitive development are preconditions for the last two modes (cf. Hoffman 2008: 441 f.). The perspective taking mode is strongly connected to the idea of an impartial spectator developed by Smith. This spectator constitutes an important concept of connecting empathy to moral behaviour, as we will see in the next section.

2.2 Empathy and Moral Behaviour

The Impartial Spectator

After introducing the concept of sympathy[3], we still need a link between the human capacity for sympathy and moral behaviour. Therefore, we need to examine how moral judgement works in the concept of empathy. We can again refer to Smith, who developed a concept in which every human being is both a moral agent and a moral judge at the same time. Instead of 'judge', Smith introduces the notion of (a) the spectator, as well as the idea of (b) the impartial spectator.

a) As a spectator in a broader sense, someone assesses the behaviour of another person as morally permissible as long as they sympathise with this behaviour, and vice versa (cf. Smith 1759: 14 ff.). Actions and motives need to be carefully assessed by a sympathetic understanding (rather than a sympathetic identification) through a perspective takeover, in which all available conditions are taken into account. The behaviour of the individual is, in the end, judged as proper or improper (cf. Churcher 2015: 48 ff.).

b) In a narrow and more sophisticated sense, the idea of an impartial spectator enables humans to critically reflect on their own moral behaviour as well as on that of others. This impartial spectatorship is performed as a self-assessment through an imagined change of perspectives that should – idealistically – ensure an unbiased view on one's own behaviour (cf. ibid: 61 ff.).

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3 In order to avoid confusion with respect to the original source, we will use Smith's notion of sympathy within the first part of section 2.2.

Additionally, Smith argues for a mutual sympathy, which means that spectators and moral agents reciprocally perform their sympathetic imagination. As a consequence, the spectator tries to understand the feelings and motives of the agent, while the agent is simultaneously able to see their own feelings and motives reflected by the spectator (cf. ibid: 54; Smith 1759: 10 ff.).

Summing up Smith's main points, moral behaviour can be reached through different types of assessments: human beings mutually assess each other using their role as spectators. To overcome human imperfections, there is the need for an impartial spectator. For a complete approval of moral behaviour, all available impartial spectators of different moral agents have to sympathetically evaluate the behaviour as proper (cf. ibid.: 29, 97).

The Empathy Criterion – Permanent Use of Human Capacities

So far, we have become familiar with a classical view of human capacity of empathy and its link to moral behaviour. We have built on Smith's understanding of sympathy, have shown which expressions are used today in modern psychology, and we have seen the function of different kinds of spectators for Smith's moral philosophy. For our aim, we will concentrate on the understanding of empathy in Hoffman's stated mode of perspective taking. Our assumption of a human capacity for empathy will be strongly connected to the capacity for an empathic response by taking different perspectives. For completing the mode of perspective taking, we would like to extend it by two special kinds of empathic responses inherent here. These are the responses through a mixture of emotional (affective) and cognitive empathy. While cognitive empathy takes account of the thinking and reflecting component, affective empathy highlights the real sharing of emotions and, consequentially, an emotional response (cf. Funk 2015: 55). Together with Smith's ideas about impartial spectators, we can use this mode of perspective taking as a cognitive and affective character trait of humans for moral behaviour (cf. Simmons 2014). Our basic assumptions are:

1. Empathic capacities: our core assumption is that 'human beings naturally have empathic capacities'. These capacities can be seen in the empathic responses of perspective taking. The responses consist of affective and cognitive psychological components. Empathy in this sense is strongly connected to moral behaviour, because of critical (self-)assessments.
2. Pro-social preferences: from an economical perspective, empathic capacities can be described as a pre-conditional subset of pro-social preferences. As long as an individual has empathic

capacities, pro-social preferences will be the consequence.

3. Permanence criterion: these capacities and resulting preferences are only 'good' if they consistently lead to empathic behaviour. In an ideal world, such an empathic behaviour would be performed not only from time to time but permanently, without exception.

The permanence criterion might look trivial at first, but in daily business the criterion, scaled from a single individual to the corporate level, leads to new practices, as we will see later in Section 5.2. Before this, we will discover the effects of well-tempered restrictions within corporations that can enable human capacity for empathy to be a motivational force for moral behaviour.

3. A Framework for Empathy in Corporations – Insights from Psychology

3.1 From Homo Oeconomicus to a Positive Idea of Human Nature

Following the assumption of the capacity of empathy, we inherently have a negative idea about human nature, in which egoistic individuals are only concerned with their own interests and utilities. Consequently, we will provide a more positive idea of human nature, in which people care for each other because of their pro-social preferences. Within their closer social environment[4], humans are concerned about fellow-human beings and, naturally, show empathic behaviour. In the business world, it should be as natural as in the private sphere to act according to this positive idea of human nature. Today, it is important to notice that younger generations are looking for a 'meaningful' profession, one which does not only provide them with material goods. Immaterial values, like space for individual creativity, self-determination in work or the development of personality, are equally important today (cf. Pink 2009: 45). In business ethics, a meaningful job is linked to a special purpose: professionals themselves are part of society and, consequently, want to have a good impact on it (cf. Solomon 2004: 1021 ff.).

Considering common economic theory, it is hard to explain such a social motivation by the dominant and widely-accepted model of the 'homo oeconomicus'. This model explains behaviour by assuming egoistic (and constant) preferences, and a set of variable restrictions. A change in

4 The closer social environment is defined by all those who socially interact with an individual in daily life. This can be family member and friends in the private sphere, or colleagues or business partners in professional life.

individual behaviour can never be explained through a change of individual preferences, only through a change within a set of restrictions. The individual 'motivation' for professional work in this case is essentially the maximisation of one's own profit and utility (cf. Erlei et al. 2007: 2 ff.).

The (c) interaction between (a) preferences and (b) restrictions needs to be assessed very carefully. The term 'restrictions' is often seen as not being connected to an enabling function, and this is a serious misunderstanding. Economic theory provides us with a different understanding (cf. ibid):

a) Preferences are constant, consistently ordered (transitive), and individual needs are never satisfied.

b) Restrictions are the economic variable for modelling scarcity of resources (financial or time limitations, scarcity of commodities etc.). Due to this understanding of restrictions, economics can set up incentives for changing individuals' behaviour.

c) Interaction between (a) and (b): in case of salaries of employees, economic theory would describe compensation and benefit systems in corporations as restrictions. The strict preferences here would state that employees always want to have the largest amount of money. When there are, for instance, variable parts in the salary determination, corporations can set incentives for preferred behaviour or to suppress unwanted behaviour through financial 'punishment' (cf. Section 3.2).

In business, it would not be a valid conclusion to assume that real human beings should always been reduced to the psychological capacities of the homo oeconomicus. Nevertheless, this economic model, as a very negative idea of human nature, has been the basis for many systems and processes that are implemented in today's business practices, such as an excessive focus on restriction-based governance through rules and guidelines, instead of preference-enabling measures. To ensure meaningful jobs and to enable the natural empathic capacities of human beings, we need to overcome the restriction-based guidance that arises out of the homo oeconomicus model. Furthermore, professional preferences are not limited to materialistic values, and this needs to be taken in account.

Concepts like compliance or codes of conduct focus on restrictions (cf. Paine 1994: 113). Additionally, most systems in business practice are malus-oriented, which means that these systems punish[5] immoral behaviour instead of rewarding moral efforts. It is doubtful that, by only making use of punishment systems in corporations, widely performed moral behaviour among all employees can be attained. What is problematic about the focus on punishment here?

> "Overall, a punishment can suppress a particular practice temporarily, but do not establish a new practice in the long term" (Roth 2007: 229).[6]

The evil here is the 'suppression' of actions. As a result, punished employees may become furious or, even worse, they could develop a hatred to their boss, as the person who punishes them (cf. ibid: 230). Another problematic consequence can be seen in arising thoughts of revenge, without any accepting or understanding thought on the punishment. Surprisingly, this is exactly the reaction the 'punisher' wants to achieve: by punishing the corrupt behaviour of an employee, for instance, we will not encounter a more moral person afterwards.

That means the punishment can only be restricted to existing undesirable behaviour but does not motivate positive behaviour (cf. ibid: 229). Research has shown that, after being punished, individuals learning strategies for avoiding the punishment: the desirable option is given by just acting 'right', but some individuals develop 'bad' strategies, such as lying, hiding ugly truths or denying responsibility (cf. University of Duisburg-Essen 2016). Taking all these consequences of punishment for immoral behaviour into account, it seems plausible to replace punishment by rewards: rewards do not try to suppress unwanted actions but reinforce[7] desirable behaviour (cf. Hobmair 1996: 149; University of Duisburg-Essen 2016). Unfortunately, rewards themselves can also cause problems: the positive stimulus of a reward as an incentive for one individual's good behaviour decreases with frequency. The more an individual is provided with rewards, the less interesting the rewards appear over time. It is important to emphasise here that the stimulus

5 Punishing means a direct treatment that leads to physical or mental pain or an indirect punishment, such as the withdrawal of a positive state (cf. Roth 2007: 229).

6 Translated from the original German source.

7 In psychological theory, instead of 'reward' the technical term is 'reinforcement'.(Ferster / Skinner 1957: 6 ff.)

problem occurs not because of the frequency itself, but the predictability of a frequent reward (cf. Roth 2007: 237 f.).

Within corporations, monthly salaries, regular promotions, anticipated profit or expected Christmas bonuses are good examples of rewards being used, but they all lose their motivating effect over time (cf. ibid: 238). Two existing solutions for this are (a) variable reward quotas and (b) social reinforcement. With (a) variable reward quotas, the intervals of rewards differ and are unpredictable. This prevents an increasing level of reward saturation. Furthermore, great differences in the efforts of the (rewarded) individual just before and after the reward are less likely (cf. ibid: 238). According to (b), social reinforcement should address the immaterial aspect of rewards:

> "The replacement of material gain by social reinforcement should be the objective of any reinforce design. A newly learned behaviour should be maintained by the influence of natural interpersonal relations, if possible" (University of Duisburg-Essen 2016).[8]

All in all, awareness of the psychological effects of punishment and reward mechanisms leads to a better understanding of the functionality and the (un)intended consequences of incentive systems in corporations. Neither a complete avoidance of punishment nor a single focus on rewards will ensure pro-social behaviour. Both incentives have to be used very carefully: poorly-intended compliance violations such as corruption, fraud or embezzlement should be punished either way (cf. Bussmann et al. 2010: 28 f.). To unleash human empathic capacities, it seems a good first step to avoid mere punishment of egoistic behaviour, and to strengthen empathic individuals by social reinforcement.

3.3 Enabling Pro-social Preferences – The Right Framework

Leaving behind the restriction aspect, we need to deal with the question of how to establish pro-social preferences within a corporation. Instead of the model-based extrinsic motivated (and egoistic) homo oeconomicus, we will look for ways to strengthen intrinsic motivation for empathy

8 Translated from the original German source.

in humans. On these grounds, punishments and rewards cannot generate intrinsic motivation. Even worse: incentives could even destroy intrinsic motivation (cf. Sprenger 2014: 75 f.). To support intrinsic motivation for pro-social preferences and give individuals the opportunity for more sophisticated ones, we need the correct framework in corporations. Established norms form a large part of this framework. Individuals behave for various reasons and in accordance with corporate norms, either because they internalised these norms as their own (cf. Grabner-Kräuter: 298) or "because they have been socialized to the expected behaviour under the circumstances" (Treviño 1990: 200). Research has shown that the moral judgment of managers is context-dependent: in business, this moral judgment is performed on a lower level than in non-business situations (cf. ibid: 199 f.). These differences indicate that a manager's morals in management decisions can differ from in private. Managers develop a particular business morality, which is consistent with the collective normative structures of the organization (cf. Grabner-Kräuter: 298). For implementing our understanding of empathy on a corporation level, we need a framework which satisfy psychological needs, as we will find now.

For this framework, we want to take insights from positive psychology, which has increased over the past twenty years (Seligman 2012: 1). This discipline tries to get psychology back to its positive parts, and to leave the purely deficient understanding of human individuals on which psychology was traditionally focused (cf. Tomoff 2015: 4). Corporations can use positive psychology to establish positive emotions for moral behaviour and to enable intrinsic motivation. Tomoff suggests three mechanisms of a positive framework (cf. ibid: 11 f.): (1) positive meaningfulness, (2) positive emotions and (3) positive interpersonal relationships.

1. There is a link between the meaningfulness of one's own work and the consistence of corporation values with individual values. If values match, the job could transform into a true vocation (cf. ibid: 11). Moreover, intrinsic motivation exists. Incentives like money or hierarchical levels are less important, and a job as a true vocation urges the fulfilment of a greater purpose. With this new attitude, there is a greater acceptance of restrictions that apply for promoting moral behaviour.
2. Positive emotions have a strong impact on an individual's behaviour. They are a source of energy, and boost performance (cf. ibid: 11). Taking this into account, we can load up empathy in corporations with positive connotations, so that empathic behaviour is associated with positive feelings. This helps to create the right psychological framework to prevent moral behaviour from being associated with fear.

3. A positive psychological framework improves interpersonal relationships. People can deal and communicate more respectfully with each other and treat critical issues constructively in this way (cf. ibid: 12). These properties are all associated with empathy. With positive emotions, individuals are more open-minded and build better relations, for which they can empathise more with others than in a negative or neutral mood (also cf. Bannink 2012: 80).

All three mechanisms support each other, so that they will lead to higher outcomes than their individual effects when used in combination. Given this comprehensive psychological framework in a corporation, and considering the empathic capacities of humans, we can derive the following conclusion: all employees with pro-social preferences are able to act according to these preferences when the mechanisms of positive meaningfulness, positives emotions and positives interpersonal relationships are successfully established.

4. An Empathy-Based Approach to Moral Behaviour in Business Practice

4.1 Recapitulation of Empathy, Moral Behaviour and Psychological Insights

Empathy as a capacity of humans is a precondition for moral behaviour in corporations. Empathy gets its moral power through the idea of an impartial spectator, which can be proved by modern psychological insights. The link between the moral effect of empathy and the psychological precondition can be found in the mode of perspective taking, which has both cognitive and affective characteristics. The impartial spectator helps human beings to reflect on their own behaviour by taking the empathic response of others into account: through this self-assessment, the empathic individual can evaluate the consequences of their own behaviour by cognitively reflecting and affectively feeling the (expected) empathic response of others.

In business practice, professionals acting in a specific role. This role demands many tasks and much responsibility, both of which can be more different than living private lives. This does not imply that these individuals are different moral agents because of their different roles in different contexts (cf. Solomon 1992: 161 ff.). From our empathy-based perspective, there is no sufficient ethical argument for a gap between moral behaviour at home and at work. In the past, individual moral behaviour was primarily influenced by more or less sophisticated restrictions within corporations, such as compliance management systems or codes of conduct (cf. Paine 1994). This

can be seen as a huge focus on the morally insufficient capacities of human beings. Mainstream economics emphasises the meaning of strict egoistic preferences of people, e.g. mirrored in the homo oeconomicus model. This is part of the explanation for the focus on the immoral parts of human capacities in business practice.

4.2 The Model of Corporate Empathy

Following the assumption of a moral capacity of human beings through empathy, we can concentrate now on the moral part of human capacity. With a positive idea of human nature, we are able to design better solutions for enabling moral behaviour in corporations beyond mere cognitive awareness of values, principles or corporate responsibility. Individuals who have these moral capacities can be encouraged through our model of 'corporate empathy'[9] (Figure 1).

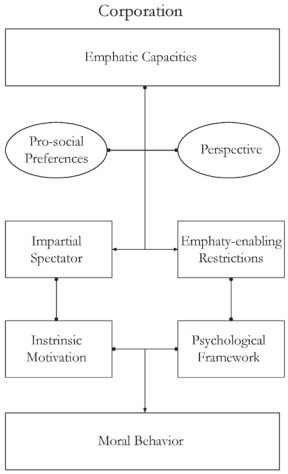

FIGURE 1: HOW EMPATHY SHAPES MORAL BEHAVIOUR IN BUSINESS PRACTICE (OWN ILLUSTRATION)

9 The notion of 'corporate empathy' might suggest that corporations as entities can be empathic themselves. This is doubtful: how can an abstract entity be empathic? We would like to argue here that corporations cannot be empathic, but that they consist of human beings with empathic capacities, and these human beings make the corporation empathic in the end.

It is necessary to emphasise that corporations should not only focus on pro-social preferences. Corporations also have to build the right restrictive framework to enable these pro-social preferences. As we have seen, this framework should satisfy at least three psychological conditions, which are presented as the pro-social mechanisms of positive meaningfulness, of positive emotions, and of positive interpersonal relationships (cf. Section 3.3). Neither do we claim that our set of empathy-enabling restrictions should replace all he established compliance management systems, codes of conduct, or more useful tools which avoid effectively poor moral consequences because of immoral and less empathic individuals (cf. Moore et al. 2012; Holt/Marques 2012). The well-tempered balance between traditional and empathy-enabling restrictions will lead to flourishing pro-social (and moral) behaviour. We are confident that, with a more complete understanding of the capacities of human beings, we can use the whole moral potential of human beings within corporations. Through corporate empathy, business practice can benefit through intrinsically motivated employees, who are not just trying to avoid harm for themselves or for their employer, but who excel in their profession, both economically and morally.

5. Implementing Corporate Empathy – Changing Business Practice

5.1 Leadership Development and Empathic Role Models

Leaders have a crucial role in business practice, because through their judgments and behaviour they significantly affect the productivity of a business. As decision-makers, they are not only (legally) responsible for their actions, but also (morally) responsible for the atmosphere they create in their sphere of influence, for example (cf. Badea/Pana 2010: 73 ff.). 'Emphatic leadership', in our understanding, means a leader's skill for cognitive and affective reflection and the ability to provide emotional responses for one's own or other's behaviour. Some authors claim that the positive consequences of empathic leadership are better motivation, better performance and agility (which means a faster adaption of changes), stronger interpersonal relations and trust between colleagues and stronger emotional connections, which leads to a climate of cooperation (cf. ibid: 77 f.). Within leadership theory, aspects like fairness, honesty, charisma and transformational skills are highlighted, and seen as methods of social learning (Brown et al. 2013:

128 ff.). As a consequence, for corporate empathy and intrinsic moral behaviour, we need the right leaders with empathic skills. Therefore, we have two options that should be performed simultaneously. We need special training and qualification programs for leaders who already work in the corporation, along with clear guidelines for the recruiting processes, so that applicants for leadership positions can be assessed on their empathic skills.

Unfortunately, research has shown that the status quo of empathic leadership is not at a high level yet. Business leaders and students of business administration and economics show high levels of self-interested and narcissistic behaviour (cf. Holt/Marques 2011). Nevertheless, there is hope that corporations can achieve empathic leadership, because there is scientific evidence that empathic behaviour can be taught and developed, both affectively and cognitively (cf. ibid). As a consequence, the ability to reflect on one's own behaviour and on that of others through perspective taking (the 'impartial spectator') should form part of such training and development activities. It might be even more important to choose the right leaders and to qualify those who are new in their positions, as well as those who are experienced enough to enable their empathic capacities. Through their function as role models, leaders will have a great influence on changes in the corporation.

5.2 Stakeholder Empathy – Permanent Change of Perspectives

Corporate responsibility departments are – as long as they are not only focusing on marketing or external affairs – entities within corporations which deal with the claims of a wide variety of stakeholders, e.g. employees, shareholders, suppliers and NGO's or local communities (cf. Freeman 2010). As an example, we can see the corporate responsibility efforts of Daimler AG (cf. Heger/Bürgel 2013: 127 f.);. the management of corporate responsibility uses tools like stakeholder dialogues and materiality analyses to identify the claims of Daimler's stakeholders. While stakeholder dialogues are more 'vivid' interactions between corporations and stakeholders, materiality analyses are usually organised as an impersonal participation through web-based surveys. Especially in internationally operating corporations, the cognitive way of participation through surveys seems to be the best available solution for cost, time and logistic restrictions in daily business (cf. ibid: 131). Considering our model of corporate empathy, how can we improve corporate responsibility measures to realise the empathic and moral potential of the stakeholders?

We are convinced that a focus on empathy could lead to innovative ways to deal with stakeholder claims. Within the interaction between corporate representatives and stakeholders outside the corporation, it can be helpful to make use of the empathic mode of perspective taking again to reach a certain level of impartiality. It could be said that this is already being done through stakeholder dialogues and materiality analyses. Both tools are sufficient for a change of perspective. Dialogues always have components of empathy. What is crucial for corporate empathy is the criterion of permanence, as we have seen in Section 2.3. Usually, (main) stakeholder dialogues and materiality analyses are only done once a year[10] (cf. ibid: 130 f.; K+S AG 2016; Deutsche Post AG 2013). This seems like switching the moral duties of managers on and off from time to time: managers use their abilities for a change of perspective during dialogue. However, beyond the dialogue, it might not be necessary to perform empathic perspective taking for affected stakeholders every day. Of course, it might be a burden from a purely short-term economic point of view but, in the long run, business can take advantage of this, because empathic managers who care about their stakeholders in daily business are able to identify stakeholder needs at a very early stage, and in an unbureaucratic way. A stakeholder empathy which satisfies the permanence criterion will lead to greater business success, because of the improved agility of corporations. Managers should therefore be prepared for permanent changes in perspectives in daily business.

5.3 Final Remarks for Business Practice – Corporate Empathy Challenged

The notion of corporate empathy is very new, and rarely found in current business practice. One case example is given by the concept for stakeholder communication of the Deutsche Post DHL Group (cf. Ehrhart 2016). For its communication and responsibility activities, the group implemented a communication strategy to prevent harm and, at the same time, strengthen the reputation of the business by trying to take stakeholder claims into account. They have built up new platforms for 'two way'-dialogue. Following this understanding, corporate empathy merely

10 More precisely, stakeholder dialogues are performed once a year per specific project or business unit. This could lead to more than one dialogue a year per corporation, but deeper analysis will show that these dialogues are organised because of different purposes and involve different stakeholders. This is not sufficient for satisfying the permanence criterion, because this understanding of permanence is attributed to individuals within the same scope of action.

means that corporate responsibility is not just an issue for 'one way' communication or external affairs. We would like to emphasise that this brand new communication strategy is a positive development from Deutsche Post DHL Group on their way to serious corporate responsibility, but it has little to do with our model of corporate empathy.

Even if we need empathy as the basis for our model, the consequence will never be an avoidance of criticism. Neither does the moral behaviour of sophisticated empathic perspective taking necessarily mean that managers or employees, in their role of moral agents, accept every counterargument against a certain decision. Nor does it imply that everybody is happy each and every day at work. Even if it were be the case that everyone within a corporation was happy and on good terms with each other, this state would hardly be reached because of the complexity of life. Corporate empathy should provide managers and employees with sensitivity towards this. Even if empathic perspective taking ensures this sensitivity, the result will not necessarily be automatic agreement with the respective stakeholder. As a consequence, not every employee will be happy about decisions made an empathic supervisor.

6. Corporate Empathy – A Business Case?

Reconsidering Senator Obama, we have to admit that we have no solutions for the empathic change of a whole society, but we have built up an empathy-based concept which will have a positive influence on moral behaviour in business practice. Corporate empathy can be seen as an innovative and holistic approach that is grounded in philosophical, economic and psychological insights. We are confident that corporate empathy can be the better alternative to corporate moral efforts than merely focus on a greater awareness of values and principles. A corporation that fosters empathic employees will reach new levels of morality and be more successful in its core business as well. Even if the notion of corporate empathy still looks like an oxymoron, there are the first publicly formulated theses on a causal relation between empathic activities of corporations and business success (cf. Parmar 2015a; Parmar 2015b). However, we have to consider that corporations – especially in our specific understanding of corporate empathy – are currently far from focusing on empathy as a moral force. Proving the significance of empathy for business success might increase the urgency for implementing corporate empathy, but as long as

business practice does not make a step towards implementing it, it will be impossible to generate empirical data for reliable proof of the business case thesis.

Besides the business case thesis, there are other critical points which should raise scientific attention: especially because of the ongoing trend of digitalisation, corporations will have to face disruptive changes in the business environment of the 21st century. A corporation that was successful yesterday might be replaced by a disruptive business model tomorrow. This is why large corporations have to find ways to reinvent themselves constantly. They need a corporate agility that ensures the rapid adoption of fast-changing environments. Sophisticated empathic skills of reflection and vigilance should play an important role in enabling corporate agility. The mutual effects between the need for more empathic skills and an increasing 'digital life' in the work environments of the future are wholly unknown. Maybe both aspects support (or are neutral to) each other, but if they turn out to be conflicting goals, working society will need to find solutions. It could be that we cannot have a completely sophisticated corporate empathy and sophisticated digitalisation at the same time.

Eventually, we see great potential for further scientific investigations of the idea of corporate empathy from a psychological, an economic, a cultural and a business ethical perspective. Either perspective will be of great interest to studying the empathic development and the related moral and economic implications within corporations in the next years.

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VALUE POSITIONING IN THE AUTOMOTIVE SECTOR

Raising Acceptance of Autonomous Cars

Raising Acceptance of Autonomous Cars

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Keywords

Autonomous Driving, Technical Innovations, Adoption Process, Social Acceptance

Autonomous driving offers huge social potential in terms of efficiency, safety, and autonomy. However, there is a general feeling of uneasiness regarding this innovation. In this paper, we will analyse society's scepticism and develop strategies for raising social acceptance of autonomous cars. First, we will combine the key findings of seven important surveys concerning German customer attitudes to autonomous driving. We will clarify the status quo: what is the current level of acceptance? Which are the favourable and reluctant groups? What are hindering factors, and how well are the potential benefits acknowledged? Subsequently, we will use insights from experts in integrity and legal affairs, future research, technology, sociology, ethics, and philosophy to provide a profound analysis of the status quo found in the surveys. We will then recommend effective and efficient solutions for raising acceptance of autonomous cars. These include furthering Advanced Driver Assistance Systems (ADAS), engaging in the education of and communication with customers, providing testing and experiencing opportunities, and introducing special areas for autonomous vehicles.

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1. *Introduction*

Autonomous driving[1] is supposed to simplify our lives and make traffic safer. The term 'Vision Zero' describes a highway system with no fatalities or serious injuries in road traffic. Even though there have been many sceptical voices, this vision had not been given up on for quite some time. Most recently, however, critics have found affirmation for their disapprobation: a person has died in a Tesla, while the car was driving on autopilot in Florida[2]. The cameras in the car could not differentiate between the white side of a turning truck and the bright sky, and as the driver failed to intervene, the collision ultimately killed the driver of the Tesla. Critics view this as a reason to completely abandon autonomous driving, or at best to reject the technology as insufficiently developed (Reuters 2016).

However, Tesla vehicles had travelled 200 million kilometres before this accident happened, while statistics show that human driven cars suffer one lethal accident after 145 million kilometres on average (Tagesschau 2016). Furthermore, autonomous cars are more efficient in an ecologic sense, allow for mobility for a broad range of people, and will result in a massive time gain for many. Nonetheless, many people readily use this terrible accident as a justification for declining the many advantages autonomous driving might actually bring. Underlying such arguments, however, is a general feeling of uneasiness regarding this innovation. So where does it come from, and how can it be eased?

In the first chapter, we will combine the key findings of seven important surveys concerning German customer attitudes to autonomous driving. We will clarify the status quo: what is the current level of acceptance? Which are the favourable and reluctant groups? How well are potential benefits acknowledged, and what are hindering factors?

The latter, together with other possible problems that lie in the way of autonomous mobility, will be commented upon in the second chapter by experts in the interlocking fields of technology, ethics, philosophy, sociology, future research, and integrity and legal affairs. From the results of this research, the question will be answered in the last chapter: How can we raise the acceptance of autonomous cars?

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1 We will use the term 'autonomous car' in a rather loose sense, without referring to any particular level of automation, as this classification into different levels does not seem to be commonly adopted in the shaping of public opinion.

2 As the autopilot is still a beta version, users are actually requested not to take their hands off the steering wheel.

2. *Current Surveys on the Acceptance of Autonomous Cars*

2.1 General Level of Acceptance

Current surveys depict a lack of social acceptance of autonomous driving. In order to draw a comprehensive picture, we have examined seven of the most important surveys concerning German customer attitudes to autonomous cars. Two of them gave very pessimistic results: according to 'Automatisiertes Fahren – Akzeptanz und Einstellungen' by GIM (Gesellschaft für Innovative Marktforschung), autonomous driving seems (rather or very) relevant to only 18% of the customers (cf. 2015: 3). The same number of people would prefer to use an autonomous car, according to Autoscout24 (cf. 2014: 157). The other five studies provide less pessimistic conclusions: according to Puls-Marktforschung's 'Trendstudie zur Akzeptanz autonomer Fahrzeuge' (cf. 2015: 3), CosmosDirekt's 'Deutschland mobil 2015' (cf. 2015: 4), Ernst & Young's 'Autonomes Fahren – die Zukunft des Pkw-Marktes?' (cf. 2013: 3), and Detecon's 'Autonomes Fahren: Wenn das Lenkrad zur Sonderausstattung wird' (cf. 2016: 9), between 32% and 42% of the customers are in favour or rather in favour of autonomous vehicles. 'Akzeptanzstudie: Autonomes Fahren' by ACV (Automobil-Club Verkehr) shows that, as of today, 35% could imagine using an autonomous vehicle (cf. 2015: 3). All things considered, it seems that around a third of customers are ready for autonomous cars. However, the framing of the situation in question exerts great influence on the observed level of acceptance, as we will show in the following.

The Possibility to Take Over Control

One important factor is the possibility to take over control, if so desired. This seems to foster the approval of autonomous driving significantly (see Table 1):

Customer Appreciation	**GIM**	**puls**	**EY**	**Autoscout24**	**ACV**
Fully autonomous cars	18%	32%	42%	18%	35%
Defeatable autopilot	49%	48%	66%	70%	71%

TABLE 1: ACCEPTANCE OF DEFEATABLE AUTOPILOTS (OWN ILLUSTRATION)

Some surveys have asked whether autonomous driving would be considered useful for certain situations (cf. GIM 2015: 5; EY 2013: 3; ACV 2015: 9), which suggests a defeatable autopilot function. Others have separately gathered information how many customers would prefer fully autonomous driving, as well as how many customers car an defer a defeatable autopilot function. Adding these numbers provides the information in question (cf. Puls-Marktforschung 2015: 4; AutoScout24 2014: 157). These results clearly indicate that at least the first autonomous vehicles should be constructed so that the driver has a possibility to take over control. This technical feature alone increases the acceptance level to over 50%. Attempts to remove the steering wheel, as put forth by Google (2016), are thus viewed critically.

Buying vs. Using vs. Testing

The Detecon study suggests that customer willingness varies with whether they are buying, using or testing an autonomous vehicle. While only 35% of the respondents could imagine buying an autonomous car (cf. Detecon 2016: 12), 51% could imagine using one (cf. ibid.: 9), and 68% could imagine testing one without commitment (cf. ibid.: 17). Similarly, in the survey by EY, which detected the most favourable attitude for fully autonomous cars, the question was phrased in terms of using and not buying. However, the CosmosDirekt survey shows that today's customers are very reluctant to lend their own car to someone who is not their partner or child (cf. CosmosDirekt 2015: 5). It may be worth considering testing and using possibilities. This suggestion will be treated in more detail later.

2.2 Potential Early Adopters

Clearly, there are also significant differences in the level of acceptance depending on personal circumstances and background. In order to appropriately address potential early adopters, it is essential to identify groups that are especially favourable of autonomous driving. By way of example, some groups of customers that are especially favourable of autonomous driving are presented in the following.

Men

All the studies that partitioned their results by gender conclude that men are generally more favourable of autonomous cars than women. Interestingly, the effect is conceivably more distinct

when fully autonomous cars are concerned: in this case, about 50% more men assume a positive attitude towards them (cf. Puls-Marktforschung 2015: 3; ACV 2015: 4; CosmosDirekt 2015: 4). By contrast, the margin is significantly smaller with regards to a defeatable autopilot function, towards which only 20% more men than women assume a positive attitude (cf. GIM 2015: 5; EY 2013: 4; AutoScout24 2014: 157). Thus, the possibility to take over control mentioned above seems to be especially important to female customers (see Table 2).

Positive attitude	**…towards fully autonomous cars**			**…towards defeatable autopilot**		
	puls	**ACV**	**CosmosDirekt**	**GIM**	**EY**	**Autoscout24**
Male	36%	42%	48%	54%	73%	74%
Female	22%	27%	34%	45%	59%	65%
Ratio M/F	1.63	1.56	1.41	1.20	1.24	1.14

TABLE 2: GENDER-SPECIFIC DIFFERENCES IN THE LEVEL OF ACCEPTANCE (OWN ILLUSTRATION)

Young People

Findings concerning age are not as concordant, unfortunately. A slight tendency is that the younger customers are more favourable. Four of the surveys support this finding (cf. EY 2013: 4; ACV 2015: 5; CosmosDirekt 2015: 4; Detecon 2016: 10). By contrast, two surveys depict rather even or alternating levels of appreciation (cf. GIM 2015: 5; Puls-Marktforschung 2015: 3), but only one survey finds a slightly contrary trend, in which older customers were more favourable than younger ones (cf. AutoScout24 2014: 157). Wherever possible (Puls-Marktforschung, GIM, EY, Autoscout24), we have looked at the numbers for the use of a defeatable autopilot function, as this is the most appreciated scenario (information about the willingness to test a defeatable autopilot function is not given).

People with a High Level of Education

Only two studies provide results categorised by education level. However, they unanimously conclude that the higher a person's level of education, the more positive their attitude towards autonomous driving. These results hold for the use of fully autonomous cars as well as for a defeatable autopilot function: the ACV survey finds that 29% of the respondents with lower secondary education could imagine using a fully autonomous car, 31% with secondary education, and 39% with general qualification for university entrance (cf. ACV 2015: 5). Meanwhile, the Autoscout24 report finds that only 63% of respondents with primary education would be willing to use a defeatable autopilot, 67% with secondary education, 68% with general qualification for university entrance, and 77% of respondents with a university degree would be willing to do so (cf. AutoScout24 2014: 158).

Wealthy People

With regards to income, the poorest are the most critical. The survey by EY shows that among those with a gross annual income of under €20,000, only 53% are in favour of using a defeatable autopilot. By contrast, from an income of €20,000 onwards, positive attitudes increase gradually, from 69% up to 76% (cf. EY 2013: 4). Results found by Autoscout24 are very similar: up to a monthly net income of €999, willingness to use a defeatable autopilot lies at just over 60%. Meanwhile, about 70% of wealthier people assume a favourable attitude, the most favourable being the wealthiest, at 74%. The arrangement of groups – the wealthiest one (>€3,000) is almost twice the size of the others – might have even veiled a stronger correlation between increasing income and approval (cf. AutoScout24 2014: 159).

People with Restricted Access to Cars

As the Detecon study shows, people who do not own a car themselves ascribe a higher estimated level of usefulness to autonomous vehicles (72%) than car owners (57%) (cf. Detecon 2016: 12). Similarly, Autoscout24 reports that 76% of the current non-drivers would be willing to use a defeatable autopilot function, whereas only 69% of the current drivers would be willing to do so. The contrast is even starker for fully autonomous cars: only 17% of the current drivers assume a favourable attitude, vs. 30% of the current non-drivers (cf. AutoScout24 2014: 159).

Frequent Drivers

Those that have a car at hand rather those with a high annual mileage seem to be most favourable: the EY survey shows that people that drive less than 5,000 kilometres per year (the observed average being 5,236 kilometres per year) are less favourable of autonomous driving: only 53% could imagine using a defeatable autopilot function, 69% of the respondents that drive up to 10,000 kilometres, and 73% of those who drive more (cf. EY 2013: 4).

Early Adopters vs. Sceptical Groups

These especially favourable groups are potential early adopters, and should be kept in mind when it comes to marketing measures for the launch of autonomous vehicles. In turn, the reluctant groups should not be neglected, as it is essential to win them over in the long run. We now have a clearer vision of these sceptical groups:

1. Female Customers
2. Older customers
3. Less educated customers
4. Less wealthy customers
5. Car owners with a low mileage

Even the in-depth analysis of the surveys could not provide target-group-specific hindering factors, though. As all of them are rather large groups, it seems reasonable to assume that they are also considerably heterogeneous in their motives. Therefore, intuitive reasoning will not work. For instance, it could be expected that female customers generally have a less distinct affinity for technology. However, such an interpretation could very well be influenced by stereotypes. In order to prove this theory, finer empirical into the issue is necessary. After all, female customers could be more aware of the possible risks of autonomous driving, or attach greater value to the occasional pleasure of manual driving. These difficulties lurk beneath the surface of all five reluctant customer groups. In the last part of our paper, we will provide acceptance raising strategies that focus on general hindering factors rather than target-group-specific ones.

Analogously to the lacking acceptance of autonomous driving, it can be seen that customers acknowledge its potential benefits partially. Table 3 shows the percentages that the studies detect for each benefit (cf. ACV 2015: 8; EY 2013: 5; GIM 2015: 4-6; Puls-Marktforschung 2015: 5)

	Extended Mobility	**Improved Traffic Flow**	**Relief/More Comfort**	**Increased Safety**	**Reduced Fuel Consumption**	**Time Gain**
ACV	49%	34%	47%	34%	30%	19%
EY	-	54%	32%	48%	40%	31%
GIM	-	-	-	24%	-	22%
puls	50%	40%	-	-	33%	-

TABLE 3: ACKNOWLEDGMENT OF POTENTIAL BENEFITS (OWN ILLUSTRATION)

Remarkably, only around half of the customers expect autonomous cars to extend mobility to excluded groups, such as the elderly. This is astonishing insofar as it almost sounds tautologous that autonomous cars will provide (auto)mobility for all those who can, want, should or must not drive themselves.[3]

Another interesting result is that few people believe in a time gain – they do not sufficiently trust the technology to imagine using their time for different things. Only 58% would use the time to communicate, 50% to browse on the internet, 31% to do work, and 25% to sleep (cf. Detecon 2016: 21). Numbers provided by Statista are very similar, except for the percentage of customers ready to sleep inside an autonomous car (37%; cf. Statista 2015).

To sum up, we can draw two conclusions from the fact that the reported acknowledgement of benefits shows significantly higher percentages than general openness to using a defeatable autopilot function. Firstly, it appears that very few of the proponents acknowledge every single

3 Of course, issues concerning accessibility remain to be solved, and thus the matter is not really tautologous. Still, autonomous driving will facilitate the situation significantly.

potential benefit of autonomous driving. Secondly, this does not seem to be a necessary condition for their approval. A lot of information remains to be given nevertheless, as even the most obvious of the potential benefits, i.e. the extended mobility and the time gain, are momentarily acknowledged by only every second or fourth customer.

2.4 Hindering Factors

The surveys provide a good overview of why customers object to autonomous driving. There are three reflective motives: worries about the price, liability, and data privacy. There are then three less reflective but rather intuitive motives: customers fear a loss of driving pleasure, have safety concerns, and have a general uneasiness about giving up control. The following table shows that none of these factors should be disregarded, as all of them plague a significant portion of the customers (cf. ACV 2015: 11; CosmosDirekt 2015: 5; Detecon 2016: 16; EY 2013: 6). The CosmosDirect row is greyed and should be treated carefully, as this survey only asked depreciating customers questions regarding hindering factors.

	Price	**Liability**	**Data Privacy**	**Driving Pleasure**	**Safety**	**Control**
ACV	30%	37%	34%	42%	58%	48%
CosmosDirekt	27%	27%		75%	37%	73%
Detecon			56%		66%	
EY		46%		58%	44%	

TABLE 4: HINDERING FACTORS (OWN ILLUSTRATION)

Price

The price is certainly an aspect that is rather difficult to handle. Car manufacturers currently envisage enormous additional costs for autonomous cars. But as long as the customers are not convinced of their benefits, they will not be willing to pay such a price. According to the Detecon survey, the willingness to pay ranges from 15% to 26%, with only the youngest group (aged 18-

29) significantly more willing to do so (42%). From the observation that the willingness to pay a charge of €5,000 is roughly identical to the overall willingness to pay any charge at all, the authors conclude that this is the amount that the customers expect on average (cf. Detecon 2016: 13-15). Although this conclusion appears not to be universally applicable (as there are significant deviations within age), car manufacturers should take it seriously because it displays a severe discrepancy between customers' current willingness to pay and the additional costs that car manufacturers envisage. It is widely assumed that, at some point, manufacturing costs will sink rapidly. Meanwhile, car sharing could already enable customers to experience driving in an autonomous car until these expectations come true.

Liability

Setting up a reliable legal framework is one of the central obstacles for the establishment of autonomous cars. Not only do the customers depend on the progress made in this area, but the manufacturers need security of investment and planning, since development costs are immense, as has already been shown. We will deal with the issue in more detail in the next section.

Data Privacy

Since Edward Snowden's exposure of the NSA's activities, data privacy has taken on great importance, especially in Germany. Easing customer doubts about this is a two-step process for car manufacturers. First, a suitable legal framework needs to be found – which we will also deal with in the next section. This legal framework needs to be implemented by information scientists to perfection: data that is promised to be protected needs to be protected, with no possibility of hackers gaining access to it. However, this is a task best carried out by information scientists, and therefore we will not be able to go into further detail in this paper.

Loss of Driving Pleasure

Driving is often seen as an expression of freedom and self-determination. Arguably, these aspects could be restricted by autonomous cars. However, the strategy of an additional but defeatable autopilot might solve large parts of the problem. Customers can still decide to switch back to manual mode on a road along the beautiful Italian coast, for example. By contrast, the possibility of personal fulfilment is seldom found in motorway traffic, or in blocked up streets downtown. This is where autonomy mode can demonstrate its advantages best. Besides, car manufacturers

will have to redefine the concept of 'driving pleasure' – with more focus on personal interaction, be it among passengers or via the internet. For women, these are more important aspects of the driving experience anyway (Eisert 2012).

Safety Concerns

Safety is the most important aspect when buying a new car: 95% of customers expect highest possible safety level in future cars (cf. AutoScout24 2015: 12). However, they are unsure what to make of autonomous cars in this regard. The survey by ACV offers valuable insights: even after being told that human error accounts for 90% of current car crashes, only 34% of customers think that autonomous cars will drive more safely than humans do. Interestingly, this is almost exactly the same percentage of customers that could imagine using an autonomous car.

Certain inconsistencies in the beliefs of customers can be observed in this regard: for instance, although 42% of customers think that autonomous cars will prevent crashes, only 34% think that this will also lead to an overall increase in safety (cf. ACV 2015: 3-8). Furthermore, 90% of the customers are actually convinced that the spread of assistance systems generally increases driving safety. However, they seem to distinguish between assisting and autonomous systems. Part of this could be due to the fact that autonomous cars need not only to be safe, but also secure: "While safety-critical systems minimize errors arising from the system itself, security mechanisms must protect the system from potential damage arising from unauthorized external access"(Böhner et al. 2015: 4). Even if car manufacturers can ensure this, a lot of additional informing and educating will be necessary.

Giving Up Control

For most people, a general feeling of uneasiness is involved in handing over control to a machine. This is probably the most complex of the six hindering factors and needs thus to be treated in more detail. Therefore, we will provide an in-depth analysis in the next section. This will show that this uneasiness in most cases is not the same as a general technophobia. The latter would be very difficult to overcome, but we will show that people rather face concrete fears at the thought of handing over control to an autonomous car.

3. Expert Interview

3.1 Sources for General Scepticism Regarding Autonomous Driving

Apart from assessing surveys on the acceptance of autonomous driving, it appears helpful to consult some experts on the interlocking area of technology with ethics, philosophy, and sociology to pervade the matter of uneasiness in society more deeply. Additionally, company insiders who attend to matters of future innovations and possibilities can make an important contribution. Therefore, we interviewed not only scientists from the aforementioned disciplines but also Daimler employees, one of the pioneers of autonomous driving.

As the survey trends have shown, the sampled population has many different reasons for scepticism or uneasiness regarding autonomous driving. In this paragraph, we will not engage in questions of a loss of driving pleasure and the allegedly unaffordable price (cf. the hindering factors 'Loss of Driving Pleasure' and 'Price'). Instead, we will elucidate sources and structures of two main reasons for general scepticism: the moral dimension which is tightly connected to the fear of losing control, and the legal framework that still has to be designed.

Moral Dimension and Loss of Control

One thing the media loves to portray in movies and literature are dystopias, where machines take over mankind (in the films 'I, Robot' (2004) and 'Ex Machina' (2015), for example). This seems to be an exaggerated depiction of one deep-rooted fear: the fear of giving up control to something or somebody else and seeing them make the wrong decision. The fear of losing control is a reason for 73% (cf. CosmosDirekt 2015: 4) not wanting to use an autonomous vehicle.[4]

With respect to loss of control, it seems reasonable to only fear dangerous situations, like accidents. Two cases are conceivable: one where the autonomous car has faster or better reactions than a human would have and saves its occupants, preventing further damage. Here, the passenger can reasonably feel safe. In the other case, a collision can no longer be avoided, and the car

4 In this survey, no difference was made between levels 3 and 4 of the scale developed by the NHTSA. For the sake of argument, we will assume that the sampled population related to level 4: "The vehicle is designed to perform all safety-critical driving functions and monitor roadway conditions for an entire trip. Such a designanticipates that the driver will provide destination or navigation input, but is not expected to be available for control at any time during the trip. […]" (NHTSA 2013).

eventually hits either one (group of) agent(s) or another. A classic example of this in philosophical literature is the trolley problem, which was first introduced by Philippa Foot in 1967 (cf. Foot 1967). There are many different versions of it, but it comes down to the idea that an agent has to decide which of the 'victims' to save, as they are unable to save all of them at the same time from a terrible accident. Applied to autonomous driving, we might think of the case of the car having to choose between killing a young mother with her child or a group of elderly people, when a collision cannot be avoided anymore.

Even though Vision Zero is a very appealing thought, experts claim that there will be times when even an autonomous vehicle cannot prevent a Dilemma Situation, so it only seems rational to implement algorithms in the car, giving instructions in case of an event like this. A human agent would have to rely on their reactions and reflexes in this situation, as they would not have the time to deliberate over their decision. The agent wouldn't be asked to justify their behaviour, as their action was probably a bodily reaction to their perception. The car is supposed to make the 'morally appropriate' decision. We want the machine to react better than a human agent, as it is able to compute the 'right solution' faster. "We expect the machine to compute faster and better than a human agent in terms of precision and consistence" states Prof. Dr. Arne Manzeschke (Ethics, EVH Nürnberg; 2016). From this stance, it seems paradoxical to see this as a loss of control, as we would be able to deliberate in advance about such situations and make an informed choice about what to do and how to react.

The reason for scepticism here might be that there seems to be no right or wrong, as in a dilemma the agent "seems condemned to moral failure; no matter what she does, she will do something wrong (or fail to do something that she ought to do)" (cf. Stanford Encyclopedia of Philosophy 2014). Thus, even though different solutions can be justified from different moral stances, neither of them is fully convincing. Of course, neither the vehicle owner nor the producer will make the choice about what the car should do in such dilemmas, the lawmaker will eventually control this process. However, it is indisputable that every solution should ultimately lead to harm minimisation and mitigation of damage, in the case of an accident. Prof. Dr. Christoph Hubig (Philosophy, TU Darmstadt; 2016) argues that this approach is justifiable from both a utilitarian and a deontological stance: "The discussion about a legal framework for autonomous driving is no longer about specific individuals and their dignity, but the general demand for mitigation of damage."

Legal Framework

In the previous paragraph, we indicated that a legal regulation/solution/settlement of dilemmas has to be found in order to reduce fear of a loss of control. In general, the legal framework is something that agitates most of the respondents, especially with respect to liability (37%) and data protection (34%) (cf. ACV 2015). Yet according to Alexander Mankowsky (Future Research, Daimler, Stuttgart, 2016), it seems paradoxical how easily accessible information about the position, accessed web pages, and purchases are, and then how anxious the same people are about data exchange in autonomous cars. A conceivable explanation for this fear of data misuse is a rather general fear of unknown technology, which therefore causes uneasiness.

Even though it appears that some objections to autonomous driving because of data insecurity are invalid, it is obviously very important to find solutions for data protection that preserve the rights of the users. A transparent, comprehensive framework in matters of data security and liability would increase the acceptance of autonomous cars tremendously. A legal regulation implies a feeling of security, the so-called 'system trust' (as opposed to personal trust) which is a term for "the confidence in the reliability of historically developed social interaction patterns and conventions, which stabilize the cohesion of complex systems" (Spektrum 2000). Hubig (2016) claims that: "Customers trust a system with respect to damage compensation, because systems generate trust that in case of an accident the regulation will preserve ones' rights."

A legal framework is therefore one crucial step towards raising the acceptance of autonomous cars. Naturally, car producers cannot develop and decide on a regulation with respect to what is morally and ethically right on their own. According to Renata Jungo Brüngger (Head of Legal, Daimler, Stuttgart) this can only be done via "broad public dialogue between politics, science, lawmakers and NGOs." (cf. Schmid 2016).

3.2 Special Challenges the Implication of Autonomous Driving Will Face

Moral dilemmas are related to a fear of losing control and the urge for a transparent, comprehensive legal framework for questions concerning autonomous driving. These are problems the public is mostly aware of. Apart from this, there are several further difficulties in the implementation of autonomous cars that are not yet commonly discussed or considered in the minds of the public. Currently, they are being discussed by specialists and experts within the

interlocking fields of technology, ethics, sociology, philosophy, and future research. We will portray three of what we believe are the most pressing ones for acceptance of autonomous cars to rise.

Mixed Traffic

First, there is the problem of mixed traffic. Before autonomous vehicles can be implemented in normal traffic, it is important to consider how autonomous and non-autonomous cars can interact. Amongst experts, there is no consensus regarding this topic. Without regulation, autonomous and non-autonomous cars will drive in the same streets and interact with each other just as normal cars do already. This makes for serious problems: autonomous cars are programmed to react in certain situations according to a prescribed algorithm. This algorithm tells them how much space they need in order to overtake, the size of a parking space, how much room they need to make a U-turn, and so on.

Hubig (2016) holds the opinion that mixed traffic would produce incentive systems for dangerous behaviour. Incentive systems denote the entirety of material and immaterial incentives that hold a subjective value for the recipient. It is conceivable that mixed traffic facilitates dangerous conduct, such as disregarding the right of way. As the drivers of non-autonomous cars know that the autonomous car will (by hypothesis) always be risk-averse, their inhibitions for driving incautiously will decrease. Hubig (2016) claims that "mixed traffic is to be avoided completely. One way to achieve an isolated paradigm shift would be to sell cars with the disposition to drive autonomously but keep the car possessors from making use of them."

This approach seems rather special, and other experts like to embrace the idea of an incremental implementation of autonomous driving. One way to do so would be to equip the vehicle with the necessary equipment for autonomous driving but only use it in special areas, for example one special lane on the motorway, or one floor of a parking structure. Step by step, there would be more and more autonomous cars in public traffic, and people could get used to them. This way, acceptance would rise very gently, and problems that autonomous cars might face can be addressed without the dangers they would constitute if implemented in a fully mixed traffic system. In general, this topic should be more present in public discussion. This can be achieved by more transparency with respect to the current state of technology and processes. According to Hubig (2016),

> "developing utopias in certain contexts how purely autonomous traffic could look like, to give people a grasp of what it could look like, and presenting a concept on how to imagine traffic after the implementation of autonomous cars would look like, might help to show how desirable said concept would be."

Interaction

Another problem that has not yet been addressed by the public is interaction between autonomous cars, drivers, pedestrians, and cyclists, claims Mankowsky (2016). Human drivers communicate with their surroundings all the time, which is why this communication is something that goes without saying and does not come to mind immediately when thinking about the complexities of autonomous driving. However, this is a very important topic, because even if we somehow manage to avoid mixed traffic, there will always be pedestrians and cyclists.

There are several possibilities for addressing this topic, all of which appear rather futuristic. Mankowsky (2016) thinks about cars that can communicate their intentions to other traffic participants through diverse signals, like lights and sounds. An early example is the Mercedes-Benz research car F015. Even though concepts like these sound rather strange at first, they will probably be a matter of habituation that has to be implemented slowly, in order not to scare everyday participants off.

Training of Manual Driving

In a world of fully autonomous cars, human driving abilities might appear dispensable because, hypothetically, autonomous cars will drive more securely and quickly than the average human. Some people may even think that driving licences will no longer be required. In fact, it will always be crucial to preserve car driving abilities. For instance, a horrifying, inexplicable accident like the aforementioned one by a Tesla or a serious security leak (Beuth 2015) could cause the need to pass on autonomous driving, at least temporarily, and revert back to manual driving.

Prof. Dr. Werner Rammert (Sociology, TU Berlin; 2016) pointed out that unexpected incidents can change events in the blink of an eye, and make nonsense of any technological projection, no matter how elaborate. Many historic examples can be found. For instance, the Fukushima Daiichi nuclear disaster came as a complete surprise. Following this, the German government decided to shut down several nuclear power plants immediately and imposed a full

nuclear power phase-out by 2022, thereby revising the lifetime extension passed only one year earlier (Tagesschau 2011). In the case of such unexpected events, alternative technologies need to be available.

In the context of autonomous driving, customers need to be encouraged to train their driving abilities, e.g. via safe driving training or driving simulators, in order to be well prepared for situations in which they have to take the wheel again. This is all the more important if cars are not (yet) fully autonomous but equipped with a defeatable autopilot. Customers always have the possibility to take the wheel, even if the current traffic situation is demanding and even if they have not driven a car in a very long time. For a defeatable autopilot to be no safety hazard, annual driving tests might thus need to be taken into consideration.

4. Strategies for Raising Acceptance

4.1 Adoption Process

The adoption process customers pass mentally before they finally accept an innovation consists of five phases: first comes perception of the object, without any further information, second, they gain interest and do research, then they evaluate whether it pays off to adopt the innovation. Afterwards they test it to find out whether they actually want to use it on a regular basis, which is the fifth phase: adoption and regular use (Wirtschaftslexikon 2016).

The insights gained through research in the form of surveys and expert interviews allow for an evaluation of where society is located in these five phases. The current state is situated between the second and third phase: customers try to gain knowledge, and start to assess and evaluate. Any information a potential customer obtains at this point can change their perspective on autonomous driving. Right now, it is of great importance to show all the positive aspects and possible advantages the implementation of autonomous cars could have in the future, and to soothe and appease fears of technological innovations, so long as they are not reasonable.

Therefore, and in accordance with our research, we have derived four strategies for raising the acceptance of autonomous cars. Of course, there are manifold possibilities for doing so. In the following, the most effective and convincing ones will be presented.

Advanced Driver Assistance Systems (ADAS) (ACV 2015) are systems to help with the driving process. There is a wide variety of assistants: Adaptive Cruise Control (ACC), automatic parking, rear view cameras and blind spot monitors, crosswind stabilisation, etc. Some of them are already so assimilated into our driving routine that we tend to forget they exist, such as power steering and the alarm for when we forget to fasten our seatbelts. These systems have all been developed in order to make the driver's life easier and the streets safer, and they can be seen as low levels of autonomous driving.

The adoption of early ADAS shows how the process of acceptance is incremental. It is very important to further the existing assistance systems, and to make them even more integrated into everyday use. One crucial step is to implement more and more of them in lower-priced vehicles, not only in high class luxury ones. This way, their use will become routine for every driver, and familiarisation can occur.

Even though the further implementation of ADAS appears to be a blessing, all the aforementioned systems are strictly helpful and meant to make the driver's life less stressful. By contrast, the Automotive Coalition for Traffic Safety and the National Highway Traffic Safety Administration have called for a Driver Alcohol Detection System for Safety (DADSS) program for putting alcohol detection devices in all cars. Alcohol ignition interlock devices do not allow the driver to start the car if their alcohol level is above a prescribed amount (cf. Walford, 2014). This device might help to increase traffic safety tremendously, yet it might also be seen as an invasive and paternalistic means of achieving the goal of more security. It might even lower the acceptance of those who would never drive under the influence of alcohol, as they may feel patronised. Therefore, it is very important to provide information of the terrible consequences of drink driving without evoking a feeling of oppression. In the context of autonomous driving, it is very important to show the customers that driving autonomously does not mean the loss of control self-determination.

All in all, furthering the incorporation of ADAS is a crucial strategy for familiarisation at lower levels of autonomous driving, in order to acquaint customers to higher levels later on. In this process, it is of great importance to prevent the feeling of surveillance and oppression by the systems, and rather show the exoneration and safety gains they provide.

4.3 Strategy 2: Educating and Communicating

Car manufacturers have to manage a balancing act in the shaping of public opinion. On the one hand, Hubig (2016) recommends developing utopias of what fully autonomous traffic could look like, in order to inspire society for the topic. This includes pointing to unregarded potential (cf. above), in order to increase their acknowledgement and thus influence public opinion positively. On the other hand, car manufacturers also have an obligation towards society to tell them about possible problems and risks. They should use this information advantage for their customers with explanatory work with regards to the problems of mixed traffic, for example. Experts agree that Vision Zero is exactly what its name suggests: a vision. Car manufacturers should pursue this ideal, and might even use it to create an image in the head of the customer. But at the same time, they should always make it clear that this vision is not possible in the near future, because traffic is too complex a matter. Prof. Dr. Johannes Weyer (Sociology, TU Dortmund; 2016) applauds Google for recording every single test drive and providing this data online, as this guarantees transparency and forestalls rumours in the media. He adds:

> "It is important to establish a public understanding that each new technology offering great chances goes with certain risks. These risks might even be unprecedented so that we have to find solutions to them first. Car manufacturers have to engage in a public discussion of how to weigh these risks against the potential in terms of comfort and safety" (Weyer 2016).

Furthermore, car manufacturers should help their customers to understand how autonomous cars work. According to Mankowsky (2016), car manufacturers should provide answers to questions such as: what kind of technology is this? What are its abilities and limits? To this end, they could equip their cars with operator's manuals. While being transported from A to B, customers could then study them and learn something about the cameras and radar systems the car is equipped with. It is even more important to explain the systems in a way that is intuitively and cognitively comprehensive. One such possibility would be tutorials and information videos. A very successful example of this is the German TV format 'Der 7. Sinn', which aired from 1966 to 2005. In short, five-minute episodes, high-risk everyday situations were presented along with physical, technical, and psychological backgrounds of driving (WDR 2016). Such videos were not only broadcast via

TV but also distributed via social media. This became a more and more important means of addressing customers: by commenting on and sharing these videos, customers are able to interact with this new information.

Taking on a mediating role instead of a merely promotional one does not only improve public understanding of the technology and ensure its correct use, but might also be a fruitful strategy to solving one of the central puzzles for Daimler, as Marc-André Bürgel (Integrity and Legal Affairs, Daimler; 2016) states: "Mercedes-Benz looks back on a track record of 130 successful years. Along the way we have built a brand that does not only enjoy a great reputation, but also the customers' trust. Our stakeholder consultations show that especially vehicle safety is an important asset – it is vital to preserve and to transfer this to the age of autonomous driving."

Having a contact person sometimes helps customers to adopt a new technology. Manzeschke (2016) refers to the introduction of an autonomous underground train in Nuremberg. As commuters reacted very sceptically, the transportation company sent uniformed employees with each train. Although they could not operate the vehicle, their mere presence and ability to answer commuter questions improved the situation significantly. Of course, it will not be possible to send companions with each autonomous car. But establishing a hotline might accomplish the purpose sufficiently: drivers could connect with it by pressing a button inside the car and address their questions and worries.

4.4 Strategy 3: Provision of Testing and Experiencing Opportunities

According to Mankowsky (2016), merely explaining and educating cannot be more than a dry run: customers also need to be able to try the new technology out in order to generate informed trust among them. Early measures involve contributions to fairs such, as the Daimler Future World, or the presentation of concept cars. One project that has already been realised is the F015 Luxury in Motion car, at the CES in Las Vegas. However, it need not be only futuristic, high-end products that attract customers. With the new S-Class and E-Class, Daimler has a mature product at hand that offers various functions and degrees of autonomy. This could be used to organise an action day at local car dealerships. On such an occasion, even customers that cannot afford to buy a S-Class can see how it feels to drive or rather be driven by an autonomous car, and that it can park

better than most human drivers can. Ford, for instance, has already organised such an event very successfully in the UK (Ford 2015).

One important aspect in the context of these first experiences inside autonomous cars is that passengers want to understand what the vehicle is about to do. The product design should enable this. The car should thus communicate its intentions not only to other traffic, but via the interface to its passengers, e.g. if it has detected a red light, wants to turn, or switches to a quicker route. Passengers can anoy themselves for the manoeuvre, and sceptical customers can collate the vehicle's intentions with their own driving intuition in a particular situation. After having experienced how the vehicle copes with difficult situations perfectly, they are much more likely to have confidence in it. An analogy is the displays in lifts: although one can intervene (whereas inside an autonomous car one can), it is reassuring to see the floor numbers when passing by. This provides evidence that the lift is neither stuck nor heading beyond the requested floor. Analogous things can be said, e.g. about speed and flight level information that is provided via the multimedia screens in airplanes.

Considering the immense costs that are associated with autonomous technology, it seems justified to assume that it will first be introduced in top-of-the-range cars. However, as soon as the technology becomes available in mid-range cars as well, car manufacturers should provide noncommittal testing possibilities in terms of carsharing. One car manufacturer that is in a perfect starting position in this field is Daimler, with its subsidiary car2go. It already has the necessary infrastructure and experience available to run a carsharing business. Autonomous vehicles could be incorporated into the current system or be launched under labels such as 'taxi2go', 'cab2go' (which would fit in nicely with the current logo), or 'AV2go'. With such a concept, Daimler can factor in customer attitudes: as depicted above, they are willing and eager to give autonomous driving a noncommittal try. However, they are not yet ready to make so large an investment in new technology by buying an autonomous car of their own.

4.5 Strategy 4: Special Areas

Together with providing testing possibilities, car manufacturers should take a stand in separate areas for owners of autonomous vehicles to make use of the autopilot. Mixed traffic poses several challenges (cf. above), but it might also be helpful for conventional drivers to get used to

autonomous cars. At the same time, necessary interaction is kept to a minimum. There are several possibilities for implementing special areas:

1. The right lane on motorways could be reserved for autonomous vehicles. Daimler has already successfully engaged in the so-called platooning, a formation of autonomous trucks that are connected via WIFI and follow each other very closely and thus reduce fuel consumption, improve safety, and increase efficiency (Knop/Preuss 2016) However, adequate measures would have to be taken so that no drivers from the other lanes try to break up a platoon, but align themselves either in front or behind it. It is crucial to forestall the traffic's feeling of being blocked from the exits by the platoons, so introducing a maximum number of trucks inside a platoon and leaving gaps between the platoons appears to be important.
2. Car parks could be built especially for autonomous vehicles, or certain areas in existing car parks could be reserved for them. Even conventional drivers would profit from this solution: autonomously parked cars do not have to leave space for the passengers to exit and enter the vehicle. In this way, more parking spaces for conventional cars would be made available.
3. Inner-city Low-Emission Zones can serve as inspiration for what Mankowsky (2016) describes as 'Safety Zones': areas that only cars in autonomy mode may enter, driving at low speed. If one assumes that autonomous cars will feature an electric drive, Zero-Emission Zones and Safety Zones could even be combined. Safety Zones could also be compared to the shared space idea: an approach to urban design which seeks to avoid segregation of pedestrians and cars. Here, the right of way is the only regulative instance, as traffic signs and road surface markings are removed (ADAC 2009) Therefore, an autonomous vehicle only needs to identify other traffic, pedestrians, and obstacles, without having to interpret road signs. The interaction between autonomous vehicles (cf. above) and traffic and pedestrians are significantly enhanced, and people can get used to the sight of autonomous cars in a low-speed and low-risk environments.
4. The same holds true for transportation systems at airports and other public places, where autonomous vehicles are already used successfully (Mayer 2016) Gradually, autonomous vehicles could be introduced into further areas of public transportation, e.g. buses. Furthermore, electric vehicles are already allowed to use bus lanes. Analogously, autonomous cars could be granted the same permission and share these lanes with autonomous buses. Like this, inner-city mixed traffic could be minimised.

5. Conclusion

In the chapter 'Current Surveys on the Acceptance of Autonomous Cars', we have used the key findings of seven important surveys to clarify the status quo with regards to the current level of acceptance among German customers, to favourable groups, and to factors that stop society from acknowledging the potential benefits of autonomous driving.

These factors have been commented on in the chapter "Expert Interviews" from an interlocking perspective of technology, ethics, philosophy, sociology, future research, and integrity and legal affairs. These two chapters gave a more detailed insight into not only the current level of acceptance of autonomous driving, but also to the underlying motives and problems that this innovation faces, and will continue to face in the future.

The overview of these challenges has led to the presentation of four key strategies that will help to raise acceptance of autonomous driving, which is very important, as we have shown. Some 'rational' reasons for scepticism can be worked on by furthering assistance systems (Strategy 1). However, we have also identified rather diffuse fears that can be better come across by informing and educating (Strategy 2). The provision of testing and experiencing opportunities (Strategy 3) can lower the bar for curious but doubtful customers and generate familiarity. Introducing special areas (Strategy 4) is an approach to resolving some very specific issues mentioned by experts that have to be dealt with in the future, such as mixed traffic. While all these strategies resolve important general hindering factors, target-group-specific measures, based on further empiric research, might provide an additional asset. Raising the acceptance of autonomous driving in society is undoubtedly a difficult task. Nevertheless, car manufacturers need to take this crucial step today: only then can they innovate mobility tomorrow. With these four basic strategies at hand, this is possible.

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Engage in Age

VALUE POSITIONING IN THE AUTOMOTIVE SECTOR

Engage in Age

Rethinking Mobility by Generating Shared Value

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Keywords

Autonomous Cars, Demographic Change, Shared Value, Health Care, Generation Management

Technical innovations like autonomous driving will boost people's independence. However, this increasing freedom is threatened by demographic changes and the increasing need for help. Based on a shared value approach, this paper discusses the opportunities for autonomous cars to foster elderly people's mobility. We suggest two examples as a solution for demographic change. Firstly, the concept of Advanced Risk Management incorporates the innovation of mHealth, which monitors elderly drivers by providing the early detection of emergencies. The second concept (Advanced Care) benefits ambulatory care services by enabling their employees to do administrative work while driving, saving time to focus entirely on a patient's needs. We conclude that implementing these two innovative concepts promotes Daimler's access to new markets and simultaneously advocates its responsibility for society. Finally, Daimler can pioneer a new era of corporate responsibility.

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1. Introduction

Mobility is essential for today's maintenance of quality of life. It is needed to cover physical distances, reaching important locations and ensuring a supply of goods. Mobility can be described as the basic need for a self-regulated conduct of life. It is a prerequisite for social participation (cf. ISOE 2013: 5). Current social developments appear to be an impediment of people's freedom of self-regulation and participation: the continuing decline in birth rates combined with an increase in life expectancy have led to a fundamental shift of age distribution. Simultaneously, increasing life expectancy entails a prolongation of the senior stage of life (cf. ibid: 10). As a global trend in the last two centuries, this development towards an ageing society is defined as demographic change (cf. Böhm et al. 2009: 21). Meeting friends, buying groceries or seeing a doctor autonomously are things that old people regard as essential for their life satisfaction. It is the car that is the most important means of transport, although its use conflicts with age-related disabilities, such as weak eyesight. Alternatives to present transportation are needed in order to prevent a loss of both mobility and life satisfaction.

The technological innovation of automated driving can meet these societal challenges both preventively and reactively. By combining the needs of our ageing society with the potential of autonomous cars, Daimler can pioneer a new era of social responsibility.

We will examine the social problem of demographic change by giving a short characterisation of our understanding of age. Section 2.2 shows the implications of ageing on mobility. Since we aim to prevent a loss of mobility in old age and ensure the social participation of senior citizens, we propose creating new opportunities for their daily routines, with the option of autonomous cars. We can imagine proceeding in two stages: firstly, Advanced Risk Management suggests integrating mobile health services in autonomous cars. Thus, Daimler ensures elderly people's safety by minimising the risk of emergencies passing unnoticed. Secondly, Advanced Care focuses on the needs of elderly dependents by supporting nursing staff of outpatient care services. The use of autonomous cars allows for several benefits, e.g. doing administrative work on the journey. The care employee can then fully focus on care activities at the patient's home. By implementing these two concepts, Daimler can access new markets and benefit economically. At the same time, it guarantees extended mobility to senior citizens and achieves a quality improvement in elderly care. Thus, Daimler can create shared value and advocate its corporate social responsibility.

2. Social Problem – Megatrend Demographic Change

2.1 Seniority – Characterisation of 'Age'

Gerontological research offers a variety of theories addressing the process of ageing and its characterisation. In the following, three considered relevant for the argument will be presented. To start with, the continuity approach deems the importance of established customs of adulthood. Accordingly, it is not the quantity of activities one performs in old age but rather the continuity which is essential for life satisfaction. The activity approach discusses the causality of activity and life satisfaction: important activities and roles from previous ways of living are to be maintained or substituted by others, appropriate to one's age. According to cognitivists, the objective circumstances are not only essential for characterising the process of ageing but the subjective perception of the individual too. Individual sensibility thus shows a crucial point of the process itself. The 'feeling of competence' is relevant, which can be described as the feeling of self-regulated conduct in life (cf. ISOE 2013: 21f.).

2.2 Implications of Ageing on Mobility

Depending on which of these approaches one adheres to, implications on mobility vary. Proponents of the continuity and activity approaches stress the importance of activities outside the home. They have a huge impact on life satisfaction in old age. In contrast, the cognitive approach states that objective mobility counts and the way in which the individual experiences their own mobility count. A loss of mobility is often accompanied with social exclusion and general life dissatisfaction. In this context, an analysis of barriers to mobility is necessary. These factors differ from the individual itself and from their environment, although they often correlate (cf. ISOE 2013: 20f.).

Considering active participation in traffic, typical mobility barriers are decreasing body functions and cognitive performance deficits. More precisely, these factors are slower reaction times, less ability to withstand stress, fatigue, and decreasing auditory and visual abilities. Each poses individual and societal threats to mobility. Placing a focus on environment-related barriers, local public transport causes challenges in old age. Public transport often lacks barrier free design. Another problem is the de-personalisation and increasing anonymity of services, e.g. complicated

user interfaces in ticket vending machines. Additionally, the unpredictable behaviour of traffic and rapid traffic procedures, such as traffic lights, further impede senior citizens. Elderly people have difficulties adjusting to increasing mobility requirements. As a consequence, the elderly cope with these barriers by avoiding stressful traffic situations, speed reduction, or reduction the frequency of their rides (cf. Mollenkopf/Flaschenträger 2001: 27).

To sum up, impediments complicate autonomy and social participation in old age. Barriers lead to feelings of isolation, especially for elderly people who live alone. Under these circumstances, the significance of mobility as warranty of social participation increases (cf. ibid: 18). The older one gets, the more unlikely a fundamental change in daily mobility becomes (cf. ibid: 30). Since we want to prevent a loss of mobility in old age, new opportunities for the daily routine have to be considered at an early stage. We see great potential for autonomous cars to adjust to senior citizens' requirements.

2.3 Technological Advances – Megatrend Digitisation

Autonomous driving has become an issue in recent years. In 2012, the topic received particular attention at the world's largest conference of transport research and development, the 'Transport Research Board Annual Meeting', that took place in Washington D. C. (United States). Equally, interest has been growing rapidly in Germany. In 2013, the Daimler Benz Foundation presented the first fully automated version of its 'Bertha Benz Memorial Route', inspiring other automotive manufacturers to present their own self-driving cars (cf. Fraedrich et al. 2016: 3).

Due to rapid development in recent years, autonomous driving has become more than a mere enhancement of driver awareness. Algorithms enable vehicles to react autonomously, without any intervention. Daimler has three stages of automation:

Partially automated	Highly automated	Fully automated
The driver must continuously monitor the automatic functions and cannot perform any non-driving task.	The automatic system recognises its own limitations and calls for a driver to take control in good time. The driver can perform a certain number of non-driving tasks.	The system can handle all situations autonomously; there is no need for monitoring by the driver. The driver is allowed to perform non-driving tasks. Driverless driving is also possible at this level.

FIGURE 1: THREE STAGES OF AUTOMATION (DAIMLER 2016)

While partially automated driving assistance systems like 'Intelligent Drive' are already offered in the new Mercedes-Benz S, E and C-Class models, the current state of research indicates that the "implementation of [fully] autonomous road vehicles into the transport system is envisioned in the not-too-distant future" (Fraedrich et al. 2016: 13). Autonomous car driving constitutes a solution for the mobility-impaired, and people suffering from physical or psychological diseases, especially the elderly (cf. ibid: 76). Among various partially automated driving functions that facilitate navigation, autonomous vehicles provide a range of 'special features', such as medical and emergency monitoring, that meet specific needs of the elderly (cp. ibid: 79). Thus, in the following we will argue that autonomous cars extend mobility. As a consequence, by implementing such special features, Daimler can create shared value.

3. Heading Towards Shared Value

3.1 Economisation of Elderly Care

With demographic changes and globalisation, the care of elderly people has experienced a shift. Nowadays, geographic mobility, changing family structures and individualisation prevent family care. Professional care services have thus risen. The commencement of the Care Insurance Act on January 1, 1995 is regarded as a turning point in the provision of health care. As a response to

demographic changes, the act pursued the opportunity to be socially insured against the risk of care dependency. It encouraged the expansion of the health care system in Germany, underlining the need for stationary, semi-stationary and ambulatory care services (cf. Bundesministerium für Gesundheit 1997: 8f.). These health care services focus on economic aspects when considering medical treatment, with economisation defining a stronger focus on the economic interests of health care providers. This includes a "management approach, quantification, market-focused operation, an entrepreneurial attitude, productivity as a norm and remote management" (CEG 2007: 154). The government can generate economisation by creating initiatives to encourage the working of the market, enabling more business-minded approaches, and allowing for health care with a profit approach (cf. ibid: 153).

3.2 Corporate Responsibility at Daimler

Taking the UN Global Compact as a guideline, Daimler emphasises the need for sustainable action in its sustainability report from 2014. Daimler describes Hans Jonas' philosophical 'imperative of responsibility' (cf. Jonas 1979) as a guiding principle for its corporate activity. According to Jonas, one should act in such a way that the effects of one's actions are compatible with the permanence of genuine human life (cf. Daimler 2014: 5). Thus, Daimler underlines its responsibility towards future generations.

Facing a demographic change in Western countries, companies have to adjust to changing structures in their workforces. The average age of a Daimler worker will rise from 44 in 2014 to 47 in 2024, when every second employee in Germany will be 50 or older. Furthermore, a later retirement age leads to increased generational diversity. Consequently, Daimler's Human Resources department has initiated generation management, to adjust the framework to its changing workforce. It aims to sensitise managers and strengthen the individual responsibility of employees in order to permanently maintain the health and performance of all its employees (cf. ibid: 62).

3.3 Creating Shared Value

We argue that these two developments – the economisation of elderly care and corporate responsibility at Daimler – can be combined. We will also show the potential of this fusion: by merging these patterns, Daimler creates a shared value. Reasoning through the idea that business has increasingly been regarded as the main cause of social, environmental and economic problems, the concept of Creating Shared Value was introduced by Michael Porter and Mark Kramer in 2011. This means the company generates "economic value in a way that also creates value for society by addressing its needs and challenges" (Porter/Kramer 2011: 4). Both argue that businesses must connect company success with social progress. The authors admit that companies must make some effort to create a shared value: it takes time to implement strategies. Nevertheless, the return will be greater economic value and extensive strategic benefits for all parties. According to Porter and Kramer, there are different possibilities for companies to create a shared value. Considered relevant to the argument, a shared value can be generated by companies discovering new products and markets. The development of new, meaningful products can solve social problems. Moreover, organisations will increase their competitiveness (cf. Liel/Lütge 2015: 183).

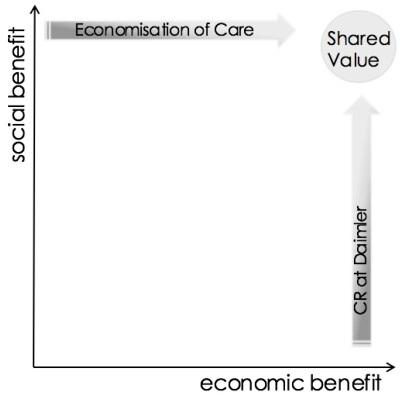

FIGURE 2: SHARED VALUE (SOURCE: OWN ILLUSTRATION)

The concept of Creating Shared Value shares some common ground with Corporate Social Responsibility (CSR).[1] Both concepts require compliance with laws and ethical standards. However, CSR programs are often a company's response to external pressure, and separately set up to improve their reputation. In contrast, Creating Shared Value is integral to profit maximisation and competitiveness (cf. Porter/Kramer 2011: 16). Consequently, Creating Shared Value can be regarded as the core of CSR, which companies should strive for.

4. Implementation at Daimler – Advanced Risk Management

4.1 Risk Management

As mentioned before, autonomous cars can provide an extension of elderly people's mobility. Daimler can thus reach a new target group. However, this new target group has an increased vulnerability to health risks. How will these health risks be recognised? Technology such as the 'Lane Keeping Assist'[2] will no longer be sufficient. Consequently, we propose Daimler expand its generation management: firstly by developing a risk-avoidance program for elderly people, and secondly by providing autonomous cars to outpatient care services. We call these two approaches Advanced Risk Management and Advanced Care. By implementing these business models, Daimler would create shared value. The company would benefit through higher profits, while senior citizens would gain extended mobility and the care of the elderly would see a quality improvement.

The term 'risk management' originally comes from the finance industry. Making an investment can bear different risks, depending on the type of financial instrument. Risks can arise in the form of volatility in capital markets, recessions, high inflation or bankruptcy. To minimise these risks, fund managers and investors perform risk management (cf. The Economic Times 2016). Since our idea of risk management does not refer to financial markets but to the health of human beings, we call it Advanced Risk Management.

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1 "Corporate social responsibility (CSR) refers to companies taking responsibility for their impact on society" (European Commission 2016b).

2 The Lane Keeping Assist recognises when the driver departs unintentionally from the current lane by using a camera. The system then gives a warning by vibrating the steering wheel (cf. Daimler 2016).

For the following analysis, we will take Germany as an example, since it is the European country in which fertility rates have fallen the most (cf. Hoßmann et al. 2008: 8). According to the Global Age Watch Index, 27.6% of the population were over 60 in 2015. This number will increase to 39.3% in 2050. At the age of 60, a German can expect to live 24 more years. However, on average, only 17.8 years of those are spent in good health (cf. HelpAge International 2015).

For the following considerations, we will make two important assumptions. Firstly, we claim that people want to live for as long as possible. Secondly, we assume that they want to live for as long as possible in good health.

4.2 The Urge to Change Health Care Systems

How can we stay healthy for as long as possible? Daniel Kraft, a physician-scientist educated at Harvard and Stanford, describes the current health care situation as follows:

> "The health care world that most of us experience – and the one that clinicians are traditionally incentivised to operate in – has been one of 'sick care', in which we focus our time and energies on treating diseases once they have appeared, or reached a point where they can no longer be ignored" (Kraft 2014a).

According to Kraft, current health care is reactive and intermittent. Systems are primarily set up to treat sick people, not to keep them healthy: people react to diseases. Therefore, health data is mostly incomplete and sporadic: one awaits an occasion to undergo a blood pressure check or an ECG (electrocardiography). Since most people only react to abnormalities, they have little knowledge about their own health data and leave the interpretations to physicians. For much of the time this procedure seemed adequate, since the causes of diseases were not identified. However, scientific expertise and technological progress have now enabled knowledge about the causes of many diseases (cf. Dorrier 2014). Consequently, Kraft argues that future health care can be more proactive and continuous, engaging and empowering individuals. Furthermore, due to demographic and financial pressure, there is an urgent need for the health care system to be based on permanent "transparent information, feedback and analytics" (Kraft 2014a).

4.3 Mobile Health Services in Autonomous Cars

How can technology converge to support the paradigm shift from a reactive and intermittent health care system to a proactive and continuous one? By developing a program of risk-avoidance in autonomous cars, possible risks affecting elderly people, e.g. heart attacks, should be prevented or recognised at an early stage. This ensures people's mobility and supports an advancement of the health care system. As a concrete solution, we suggest linking autonomous cars to the potential of mobile health ('mHealth') services. Our concept of mHealth is the provision of electronic health services and information based on mobile and wireless technology. Since multi-standard chipsets and low-energy wireless technology are being enhanced at increasingly affordable prices, advanced mobile uses in hospitals, at home and outside will be feasible in the future. The mHealth devices include mobile devices, personal digital assistants (PDA), smart watches and other body-worn devices or implants. These mobile devices collect people's health data. Platforms can thus provide unconditional access to the data, including medical history, allergies, diseases and interventions.[3]

MHealth offers a response to rising demand for improved service with fewer resources in health care. Firstly, patients can take control of their own health. They can access their own records on mobile platforms, and get reminders about their medication (cf. European Commission 2016a). Due to this possible self-assessment, they can manage their health proactively and continuously, as Kraft (cf. 2014a) suggests. They are therefore able to live more independently. Secondly, doctors can make better diagnoses and provide efficient treatment (cf. COCIR 2013: 23). Thirdly, by implementing mHealth tools in autonomous cars, people feel more secure on the journey, which can positively affect the acceptance of autonomous cars (cf. Auer/Schmidt 2024).

4.4 Tele-Cooperation with Health Care Providers

Age affects people in unpredictable and unique ways. We cannot deduce information about a person's mental and physical health from their age. Consequently, autonomous cars should provide

3 We are aware that unconditional access to personal health data might conflict with the legal framework of data protection. However, the answer to this problem is not pursued in this paper.

tools and services for elderly people in all stages of physical and mental health. Our suggestion for Daimler is to initiate tele-cooperations[4] with health care providers to implement structures of mobile tele-monitoring as a part of mHealth services in cars. Tele-monitoring describes the possibility of communication between the patient and the service provider without meeting personally. Additionally, it describes the assessment of vital data, e.g. blood pressure, pulse, ECG, with sensors attached to the patient outside of conventional clinical settings. In the case of autonomous cars, we imagine the sensors measuring the vital data being implemented in the seat and seatbelt.[5] The data gained is transferred to a base station and then sent to a medical service centre, where the data is analysed. The doctor can access the data via a personal account (cf. Deutsche Gesellschaft für Telemedizin 2016).

4.5 The Four Functions of the Smart Car

When someone gets into a car, sensors find their basic health data. The sensors gain the information continuously and proactively (cf. Dorrier 2014). Proactively means that the passenger is informed about their condition via screen and/or voice. We suggest taking the following measures: firstly, by using sensors, the intelligent car can run a general health check-up. The check-up would focus on risks, especially those affecting elderly people. These risks include cardiovascular diseases and diseases of the locomotor system (cf. Robert Koch-Institut 2009: 31). Secondly, the smart car should have a 'reminder system' that can alert the passenger to take medicine or fulfil basic needs, such as drinking water.[6] Thirdly, we propose that the car is able to initiate medical appointments in case of the discovery of abnormalities during the tele-monitoring process. It should also set up doctor's appointments for extensive check-ups, which the car cannot provide. Fourthly, due to the intelligent application of tele-monitoring, the car would prevent emergencies or detect them at an early stage. In the last case, the smart car would cancel its planned

4 In medicine, tele cooperations describe the exchange of audio, video and data information between distant locations (cf. Deutsche Gesellschaft für Telemedizin 2016).

5 We are aware that this idea implicates high technological progress which has not been reached yet. However, its technological feasibility will not be discussed in this paper.

6 Inadequate fluid intake arises when ageing sensory cells detect thirst. This can lead to dehydration and other consequences, such as changed effects of medication, rapid heartbeat or thrombosis (cf. Gesundheitsamt Bremen 2016).

route and drive immediately to the closest hospital. While driving, the car would connect with the hospital and send out an emergency call, adding the passenger's health data. A physician from the hospital could contact the patient in the car via tele-monitoring and offer psychological first aid, introducing themselves and informing the patient about having received their data. They would try to stay in touch with the patient for the rest of the ride. Meanwhile, the emergency room is being prepared for the patient's arrival. Furthermore, the patient's emergency contact is informed by the car. This early detection program would strengthen efficient emergency care, which could prolong many lives.

5. Home Care in Germany

5.1 Increasing Demand in Home Care

Advanced Risk Management is followed by Advanced Care. In this paper, the concepts' chronological order illustrates the ageing process of senior citizens: after having examined how the changing mobility requirements of seniors can be warranted through advanced health care systems in autonomous cars, this section focuses on the need for care in old age. Population ageing is generating a need and demand for care. Currently, there are 2.6 million people in Germany in need of care. The latest care statistics indicate that 71% of the care is performed at home, and one third is provided by outpatient care services (cf. Statistisches Bundesamt 2013: 5). This tendency is not limited to Germany:

> "In general, the social and political climate in European countries is favourable to care at home. […][G]overnments see home care and community-based care as less expensive than institutionalised care. There are no costs for housing or buildings, overheads are lower, and there are more incentives for neighbours and family to assist in care" (Eurofound 2013: 15f.).

However, due to changing family structures, individualisation and geographic mobility will prevent family care and contribute to an increase in outpatient care services (cf. Deutscher Bundestag 2002: 233 ff.). In Germany, two concrete factors have led to the reinforcement of the home care sector:

1. The Care Insurance Act of 1995 determines the priority of home care by law. The basic principle 'outpatient care has precedence over inpatient car' applies (cf. Bundesministerium für Gesundheit 1995: 9).
2. Structural changes in health care, e.g. shorter stays in hospitals, will lead to an extension of home care tasks (cf. DAK-Zentrale 2006: 5).

Besides basic care, including personal-care services such as washing, dressing or feeding, care employees also provide treatment such as catheterisation or giving intravenous injections for illnesses. To avoid any misconception, the term 'home care' needs some further explanation and specification, as it has different meanings, depending on the country and sector. This paper works with a definition inspired by the recent Home Care Across Europe report (2012): Home care enables individuals to stay living in their familiar surroundings. Linked to national circumstances, home care includes both short-term and long-term care (cf. Bundesanzeiger 2007: 7).[7] It can be provided only by professionals or in combination with care given by relatives (cf. Genet et al. 2012: 9). The main focus of Advanced Care is on home care provided by professional care employees. In this paper, we will use the term 'outpatient care' instead of home care.

The political aim to enforce home care meets senior citizens' wishes. As the saying goes, 'there's no place like home', and senior citizens prefer outpatient home care over inpatient care, living autonomously in familiar surroundings for as long as possible (cf. European Comission 2007: 118). This political and societal affinity to home care has led to a significant expansion of home care services in Germany: from 2011 to 2013, the number of people dependent on inpatient care increased by 2.9% below average, whereas outpatient care attended to dependent persons increased by 6.9% (cf. Statistisches Bundesamt 2013: 7).

7 *Krankenhausvermeidungspflege* can be applied for up to four weeks, or in duly substantiated exceptional cases, for longer.

There are three concrete grievances in outpatient care services: the shortage of skilled employees, the high workload in general, and increased care documentation. We want to meet these challenges with autonomous cars. The increasing demand of care is supplied by almost 13,000 registered outpatient care service providers in Germany. About two thirds are privately owned. Approximately one third is provided by non-profit organisations, such as Diakonie Deutschland or Caritas Deutschland. The latest care statistics indicate that non-profit outpatient care services on average look after a significantly higher number of clients than private services do – nearly double (cf. Statistisches Bundesamt 2013: 10). How is this high workload compensated for? Even though the number of employees has increased, the labour market currently suffers from a shortage of skilled employees: In 2012, there were only around 3,000 registered unemployed care sector workers with adequate training per 10,000 vacant jobs (cf. Eurofound 2013: 18). Considering the age structure, the personnel situation in outpatient care services is exacerbated: the majority of employees are 41 to 50 years olds. Around 15% of the employees aged 56 and over will retire in the coming years. 20,000 workers are therefore needed in the next ten years (cf. dip 2016: 5).

How is this high workload viewed? Qualified employees are faced with poor working conditions: outpatient care is a demanding job. Some employees work for several employers, and the working time is difficult. More than 70% of the employees work overtime, from which almost 50% work more than ten extra hours per week (cf. DAK-Zentrale 2006: 16). Overtime goes along with psychological stress. Typical triggers include time pressure, pressure to perform, and shortened or discontinued breaks. Frequent consequences are psychological and physical illnesses (cf. ibid: 10). Every third outpatient care service observes an increase in both the number of sickness notifications and the duration of the disease (cf. dip 2016: 86).

Besides the accelerating demand for home care resulting in increased workloads, another critical trend is discernible. Care employees spend a disproportional amount of time documenting the care. Consequently, time is reduced at the client's home. The public debate on the problem has borne fruit. In 2013, the Bundesministerium für Gesundheit introduced the "*Ein-STEP"* model to reduce care documentation. The outpatient care services mostly welcome efforts towards less bureaucratisation. Still, one third of the respondents remain sceptical towards a significant discharge (cf. ibid: 113f.). These results illustrate both the necessity of simplified care

documentation, which leaves us with the question: how can existing doubts be countered? As stated in section five, technology can make an important contribution to relieving care employees and improving the quality of care. Nonetheless, this opportunity holds risks: firstly, new technology needs to be adapted to the requirements of the employees. Secondly, documenting more precisely means greater control for the employee. Thus, it is not only a balancing act between tedium and missing room for individual care due to meticulous documentation. There should rather be a useful tool for employees, avoiding mere efficiency enhancement. Thirdly, investment in complex computer systems imposes a burden for outpatient care services. Consequently, financing issues need to be evaluated (cf. Hans Böckler Stiftung 2015: 4f.).

At this point, we conclude that outpatient care services suffer shortages in personnel and in the quality of working conditions. In order to guarantee quality care, less cumbersome bureaucratisation is important. There is both the potential and the need for innovative concepts to support outpatient care services.

6. Implementation at Daimler – Advanced Care

6.1 Strengthening Outpatient Care Services

Daimler, as a global automobile manufacturer, has the resources to support innovative approaches like the Advanced Care concept. The focus lies on improving the working conditions of employees in outpatient care services. By using self-driving cars, care employees can document the care activities during the journey. The numerous working routes can be used sensibly, and the time is saved for care. Additionally, traveling time in an autonomous car becomes safer (cf. Auer/Schmidt 2016). The current number of accidents during working time is alarming. Every tenth employee is involved in at least one car accident every year (cf. DAK-Zentrale 2006: 10). While the risk of accidents in autonomous cars can be countered, the opportunity for transforming traveling time into efficient working time exists. The grey area between drives and breaks should be regulated. Appropriate provisions need to be agreed upon, to avoid abuse of this efficiency enhancement. The latter should enable employees to have relaxing breaks, without haste.

6.2 Implementing Advanced Care

An interconnected autonomous car is ideally suitable for software that supports care documentation. Such software could integrate various devices: on-board computers provide not only a smart route planner, but checklists for medication to prepare for the next home visit. A smartphone app linked to an autonomous car assists care employees with documentation on-site, e.g. through speech recognition software. Moreover, the software enables professional and transparent performance-related finance and invoicing. Lastly, it offers a solution to information deficits between cooperation partners. Employees in outpatient care services work autonomously, have little contact with their colleagues, and cope with complex situations all by themselves. Simultaneously, professional home care is often provided by many different institutions. In order to provide quality care, a well-functioning information exchange between care employees, relatives, treating physicians, the local hospital, and services like meals on wheels is required. A closure of existing information gaps reduces employee overload, both in terms of work and responsibility (cf. ibid: 42f.).

To sum up, Advanced Care provides a way to work efficiently during traveling time by means of technical innovations. The time gained enables focused care and undisturbed breaks. In doing so, working conditions improve, and new employees are attracted to the outpatient care sector.

7 Achieving Shared Value

7.1 Social Benefit

By combining Advanced Risk Management and Advanced Care, Daimler can respond to challenges of demographic changes. Autonomous cars can provide mobility, safety and care support for senior citizens in the ageing process. In doing so, Daimler can combine company success with social progress. Firstly, we will consider social benefit: a successful implementation of Advanced Risk Management needs collaborations in the mHealth sector. Thus, Daimler reasonably enhances big data. It combines the terabytes of data each person produces every day

with artificial intelligence to discover anomalies in human bodies at an early stage (cf. Kraft 2014a). To realise Advanced Care, a cooperation between Daimler and an outpatient care service is required. Non-profit outpatient care services have to care for a significantly larger number of clients than private services do. Daimler could provide a fleet of specially equipped autonomous cars to cooperation partners, e.g. Caritas Deutschland or Diakonie Deutschland. We envision an extension of car sharing services: car2go goes care2go. With this extension, Daimler could make an important contribution to quality improvement of outpatient care in Germany. Additionally, it could extend its generation management far beyond the corporate context. The company could exemplarily adapt to the requirements of senior citizens in general and of its ageing employees in particular. In doing so, the company can positively impact the company culture and its overall reputation, thus raising its employer attractiveness. To put it in a nutshell, Daimler would benefit society.

7.2 Economic Benefits

A market analysis illustrates Daimler's economic benefit: by offering age-appropriate mobility concepts, Daimler can address new target groups. The mid 2008 report provides valuable links for Daimler: Firstly, mobility rates among elderly people increase. This illustrates a longing for mobility and activity. Secondly, a renouncement of cars in old age is correlated below average with passenger car costs. Instead, health concerns are listed above average. Thirdly, the car is the most important means of transport in old age. Fourthly, an autonomous car meets every criterion for seniors' choice of transport: first and foremost comfort, followed by speed, independence and safety (cf. ISOE 2013: 35 ff.). Joseph Coughlin, director of the Massachusetts Institute of Technology's AgeLab in Cambridge, aptly describes this market potential:

> "For the first time in history, older people are going to be the lifestyle leaders of a new technology. Younger people may have had smartphones in their hands first, but it's the 50-plus consumers who will be first with smart cars" (Bloomberg 2016).

Our business case is momentous for the brand image. A premium automobile manufacturer engaging in age is at risk of shifting towards old-fashioned connotations. Campaigning for age-appropriate mobility concepts, however, also holds three concrete opportunities:

1. The automotive industry is facing new challenges, due to decreasing car purchases and increasing service-orientated uses of mobility. As Daimler CEO Dieter Zetsche stated, digitisation threatens present strategies in the automotive industry. Nonetheless, it creates new perspectives and opportunities (cf. business impact 2016). We suggest Daimler engages in age, or more precisely in innovative technology, to distinguish itself from its competitors.
2. A distinguishing feature of this kind also influences young people's consumer behaviour. The tendency towards pragmatic and multimodal mobility solutions is accompanied by another trend: 'Neo-ecology' describes consumers' rising environmental awareness and sense of responsibility and affects more and more sectors. Both ecological and social issues form part of economic calculation. Nowadays, companies think in terms of corporate responsibility. Moreover, 'ethical consumption' promotes the continuing organic boom and the demand for renewable energies. Present and future mobility-users no longer regard car use as a privileged status symbol, but rescale product requirements by flexibility, pragmatism and sustainability (cf. Winterhoff et al. 2009: 25 f.).
3. The use of autonomous cars to create social added value can have a favourable influence on the innovation's acceptance (cf. Auer/Schmidt 2016).

We conclude that, by implementing these two innovative concepts, Daimler can create a shared value and thus pioneer a new era of corporate responsibility.

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Refugees in Business

VALUE POSITIONING IN THE AUTOMOTIVE SECTOR

Refugees in Business

Corporate Responsibility and Refugee Integration

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Keywords

Refugees, Integration, Corporate Social Responsibility, Job-Training, Labour Market

Refugee integration is one of the most critical issues, both for the present and for the future of Germany. However, the role of public corporations and their scope of actions related to refugee integration are undefined. This paper looks at refugee integration as a matter of Corporate Social Responsibility (CSR), and provides a practical approach towards integration in companies. Firstly, we will outline the relevance of successful professional integration for society and the positive impact meaningful CSR ideally can have on corporations. By connecting these issues, it will then become evident that the integration of refugees is indeed an issue for CSR. Secondly, we will transfer this CSR issue in practice by proposing a 'Corporate Integration Strategy'. Expectations, scope of measures and flexibility are the key variables that, if carefully considered, will allow for the diverse benefits which will be summed up in the last step.

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1. Introduction

It seems common sense that the integration of refugees into our society is also an issue for corporations, as immigrants need a place to work, and the corresponding job training. Many firms and organisations promote corporate volunteering for their employees, conducting social projects, or have started occupational integration projects. But why should they engage in integration? Is it only a matter of reputation and publicity?

Politics and CEOs of large corporations have high expectations for the professional integration of refugees: 'They will mitigate skill shortages'; 'they will solve the problem of demographic change'; 'the next economic miracle will result'. Although many organisations are highly motivated to integrate refugees in order to generate these benefits, high-pitched expectations, superficial knowledge and insecurity surrounding how professional integration should be designed can lead to negative outcomes.

The aim of our paper is to answer two main questions related to the discussions about integration: why and how should corporations integrate? In Chapter 2, we will analyse why responsible corporations should be engaged in integration. We will firstly show the relevance of refugee integration for society. We will then show the positive impact meaningful CSR[1] activities can ideally have on corporations. Both approaches will then be connected: the integration of refugees as a topic of corporate responsibility. This will be clarified by analysing the impact that integration has on high-prioritised CSR materialities. We will refer to Daimler's materialities stated in its sustainability report of 2015, such as human rights, integrity or employer attractiveness. It will become evident why we aim to establish integration within the core of CSR. In Chapter 3, we will give guidance on how corporations can successfully integrate refugees by proposing a meaningful 'Corporate Integration Strategy'. We will clarify the correlation between the components of the Corporate Integration Strategy, in order to analyse Daimler's refugee projects. Chapter 4 points to possible benefits for the refugees, the company, and society.

In our paper, we will use the term 'corporate integration' when talking about implementing a meaningful integration strategy in a company. Integration will be defined as the goal to include

1 In our paper, we will use the abbreviations CSR and CR synonymously, using the definition of the Europeans Commission: "[CSR is the] responsibility of enterprises for their impact on society" (European Commission 2014).

all people living legally and permanently in Germany into society, and the capability for comprehensive and equal participation (cf. Bundesamt für Migration und Flüchtlinge: 2016). In this respect, it is necessary to differentiate between the terms integration strategy and integration project. Integration projects are single measures conducted by one department of a corporation for a specific purpose. An example would be a specific student internship for refugees, in order to get first impressions about possible occupations. In contrast, an integration strategy affects various business divisions, such as donations, finance, human resources, integrity offices. All measures conducted by these departments are coordinated, and fit best with each other. Not every department conducts its own project, but rather the integrity office that sets up volunteering projects for its employees in contact with the human resource department that offers internships for refugees, for example. These interns are then assisted by employees that wish to volunteer. If a corporation not only conducts single integration projects but coordinates them by setting up a comprehensive integration strategy, integration measures will be more effective. The benefits from a successful integration will therefore be much greater.

2. Integration of Refugees as CSR Topic

2.1 Relevance of Integration for Society

In 2015, German authorities from the Ministry of the Interior registered 1.1 million asylum seekers. Combined with initial applications in 2016, the total number of asylum seekers exceeded the population of Munich. It is assumed that not every asylum seeker will receive a residence permit. However, it would be a mistake to underestimate the situation. The Institute for Labour Market Research estimates that, out of all refugees who will be granted a residence permit at the end of 2016, roughly 500,000 to 620,000 people will be able to participate in the labour market. What underpins this prognosis is that in 2015, out of the 141,000 refugees who were granted a residence permit, 110,000 could potentially contribute to the labour force (cf. Brücker 2016: 2).

When we refer to a refugee, we refer to someone who is afraid of being persecuted for their race, political opinion or religion, and is unable to avail themselves of the protection of that country (cf. UN 1951). In general, 70% of the asylum seekers are younger than 30, and the proportion of asylum seekers under 18 is around 30%. In comparison, in the domestic population,

the proportion of people under 18 is 16%. Less than 30% were younger than 30 (cf. Bonin 2016: 7). In this context, public debate often surrounds the question of how qualified refugees are. In fact, there has not yet been any statistically representative data collection with regard to this question. A careful approach represents the voluntary survey of the Federal Agency of Migration and Refugees. It suggests that there is a great uncertainty as to what extent refugees are qualified. Between the 10% who classify themselves as highly qualified and the 13% who classify themselves as completely unqualified, there is a big question mark. However, what can serve a directive indicator for evaluating the potential work force, besides the question of the actual qualification, is the fact that nearly 85% of the respondents stated that they are willing to stay and work in Germany (cf. Worbs/Bund 2015: 5).

In summary, the low average age of refugees who will get permission to work, combined with their motivation to work both in the short and long-term, leaves one with the interim conclusion that there is a considerable potential that can be qualified by political and corporate investments in education and apprenticeships. A study by the Heinrich-Böll-Stiftung foundation examines just how important this individual development for the German population is, in terms of financial sustainability of the public budget.

One of the key variables of the calculation method in this study is concerned with the final professional qualification, which this paper focuses on. Based on the assumption that around one million refugees will receive a residence permit, the study shows a spectrum of possible developments. The projected best-case scenario is that if 20% of the refugees achieve the qualifications equivalent to a successful domestic apprenticeship instead of an average qualification of low-skilled workers, the public budget will, in the long-term, be relieved by more than 60 billion euros. This is only if the professional integration process does not take more than ten years. The relief of financial support for the refugees and the rise in tax income primarily explain this effect. However, the worst-case scenario describes the integration process taking about 20 years, with participating refugees being left with the qualification of low skilled workers, and will lead to immense public budget deficits, roughly 389 billion euros (cf. Bonin 2016: 12ff.). The precise numbers are not the main concern here, but rather a definite tendency. This clearly shows that it is in the interest of society, politicians and corporations to carefully integrate the refugees.

2.2 Impact of CSR on Companies

We will now examine the impact that CSR activities can have on organisations. Empirical evidence shows that better corporate social performance[2] can lead to higher corporate success, because key drivers of business prosperity are positively influenced (cf. Heslin/Ochoa 2008: 128). We will focus on how CSR can influence financial performance, consumer behaviour and employee engagement. We will concentrate on these aspects, because relevant empirical research has been conducted that shows a possible positive link. Furthermore, the influence of CSR should be analysed from different perspectives, including the employee's and consumer's. Regarding financial performance, one can observe a growing trend of investors directing money towards socially and environmentally responsible corporations (cf. Heslin and Ochoa 2008: 130). An empirical study conducted in the US and Europe by Arx and Ziegler, Center for Corporate Responsibility and Sustainability University of Zurich, showed that CSR activities are valued by financial markets (cf. Arx/Ziegler 2008: 24). Poor CSR performance negatively impacts investor's attitudes towards the firm (cf. Heslin/Ochoa: 130). In the long-run, high sustainability companies that embrace a culture of sustainability by adopting corporate policies regarding environment, society, employees and customers are able to outperform their counterparts, first in the stock market, and then in accounting performance. Nearly identical firms concerning capital structure, operating performance, growth opportunities and risk profile reach diverging results in stock market performance: investing $1 in 1993 in a portfolio of a sustainable firm would have grown to $22.6 (based on market prices) by the end of 2010. Such an investment in the portfolio of a low sustainability firm would have grown to only $15.4 by the end of 2010. (cf. Eccles/Ioannou/Serafeim 2011: 6ff.).

Consumer behaviour, which includes consumer reactions to CSR, is not as straightforward as one would expect. The consumer's attitude and purchase intentions are only positively influenced when certain conditions are satisfied: the product has to be of a high quality, and the consumer does not want to pay extra costs. Furthermore, the consumer has to support the firm's main CSR projects, and can observe a good fit between the social initiative and the corporate

2 The corporate social performance or CSR performance of a company indicates the outcome of a certain CSR strategy. Different approaches exist for measuring CSR performance, e.g. the KLD social performance index which includes key performance indicators concerning environment, social and governance issues (Caroll/Shabana 2010: 95).

mission. (cf. Bhattacharya/Sen 2004: 18). The last point is the most important, because a perceived divergence between CSR activities and the firm's motivation negatively impacts buying behaviour and consumer attitudes towards the firm. It is therefore of the utmost importance to strategically engage in CSR activities that are consistent with an organisation's culture, competencies and corporate values (cf. Becker-Olsen/Cudmore/Hill 2006: 5ff.).

An example of a consistent CSR project would be if the American retailer of home improvement and construction, Home Depot, supported the non-profit organisation Habitat for Humanity. Analogically, integration of refugees is consistent with Daimler's corporate values and its claim to be a leader in terms of social responsibility, as well as its efforts to promote diversity.

Thirdly, as employees are one of the most relevant stakeholders, it seems essential to focus on the effect CSR has on them. CSR builds better organisational reputation in the society. In comparison to other corporations that do not act socially responsible or have a low corporate social performance, the company is more attractive to new graduates and motivated potential employees. In terms of recruiting new employees, companies with better CSR performance have a structural advantage. CSR also improves the commitment level of existing employees (cf. Ali et al. 2010: 2798 ff.). Baumann and Skitka explain this phenomenon by higher employee satisfaction, because CSR provides employees with self-esteem, a feeling of belonging and a deeper sense of purpose at work (cf. Baumann/Skitka 2012: 69ff.). For physicians, teachers or policemen it is easy to gain a profound sense of work. However, this is also possible for an assembly line worker: if they think that Daimler's performance in taking social and environmental responsibility is exemplary and that they can be part of 'doing something good', their sense of purpose increases. The resulting higher employee commitment leads to better organisational performance (cf. Ali et al. 2010: 2799).

2.3 Conclusion: Relevance of Integration for CSR

Consequently, having in mind the impact CSR can have on the firm, we see great potential for further improving CSR performance. As shown above, successful CSR can positively influence financial performance, consumer behaviour and employee commitment. As CSR is subject to constant changes, innovative projects and new ideas are needed to further improve an organisation's performance. As the integration of refugees is the most current challenge for the

German economy, and society expects more meaningful engagement by corporations, a successful CSR strategy must include integration as a core topic. We therefore argue for a CSR strategy that contains measures for successfully integrating refugees into society. The justification for our argument is the social relevance of integration, which has already been explained, and the positive effects refugee integration projects would have on CSR materialities such as diversity management, employer attractiveness and integrity. Using Daimler's materiality analysis as an example in the next chapter, we will show exactly how these materialities are influenced.

2.4 Relevance of Integration for Daimler's CSR Strategy

We will argue that implementing integration projects as a core CSR activity into Daimler's CSR strategy will lead to positive effects on different materialities. We will focus on three examples and show how employer attractiveness, generation management and integrity will improve. Materialities that are positively influenced by refugee integration projects are highly prioritised, not only by Daimler but also by various stakeholder groups. Implementing an efficient integration strategy is therefore not only in the interest of Daimler, but also of its stakeholders, such as employees, suppliers and NGO's.

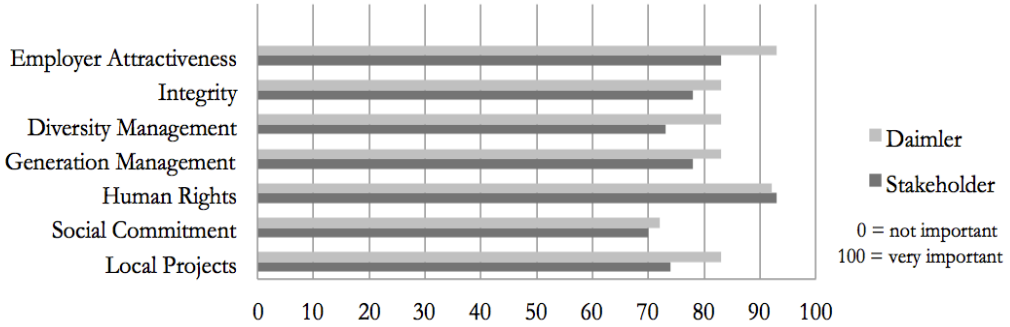

FIGURE 1: MATERIALITIES (OWN ILLUSTRATION BASED ON DAIMLER 2015)

Firstly, Daimler's attractiveness as an employer will rise if integration projects are conducted by the corporation, and employees have the possibility of getting involved. We will base this prediction on observed employee attitudes towards firms with high CSR performance. As shown in the previous chapter, highly qualified potential employees prefer working for organisations that

act more socially and environmentally responsibly than others in the same field (cf. Baumann/Skitka 2012: 69ff.). As corporations in the automotive sector have recently developed their own CSR strategies, e.g. BMW's focus on renewable energy and its sub-brand BMW i, Daimler needs to strengthen its brand image as a responsible organisation in order to stand out from its competitors. The number of people (mostly women aged 20-30 or older than 60) willing to volunteer in projects related to refugee integration has increased by 70% in recent years (cf. Karakayali/Kleist 2015: 5). We therefore argue that Daimler's efforts to integrate refugees will be greatly rewarded by potential employees, who might choose an employer not only because of their integration projects in general, but also because of having the possibility to get involved in specific volunteering projects conducted by the corporation.

Through improved employer attractiveness, future skill shortages can be mitigated. In 2024, 50% of all Daimler workers will be aged 50 or above (cf. Daimler 2015: 70). If Daimler is now starting to implement its own refugee integration strategy that includes training for refugees in the sectors concerned, a future lack of qualified personnel might not occur. Because of increased employer attractiveness, Daimler would have a strategic advantage in recruiting employees over competitors such as BMW or VW, which leads to improved generation management. However, in many cases refugees might not be – as always assumed - the qualified employees of tomorrow, because their level of education and language skills might not be high enough for specialised occupational activities in the automotive sector (Bundesagentur für Arbeit, München 2016). Additional internships and job training especially for refugees – as already conducted – positively influence generational management in the long-run. Especially in departments with a decreasing number of applicants, these training programmes provide for the future and can relieve cooperating suppliers. Medium-sized companies are already facing a shortage of trainees in certain occupational fields, and might not be able to afford specific training places for refugees. In order to guarantee further cooperation with local suppliers, Daimler might use its competencies in offering first training programmes to refugees. Through placing all refugees in work after successfully finishing Daimler's so-called 'bridge internship' job vacancies, cooperating suppliers could already be filled (cf. Daimler Communications 2016).

Furthermore, we state that integrity at Daimler will be improved if integration projects are conducted. Deloitte's Impact Survey (2011) shows a positive link between loyalty, satisfaction with an employer, and corporate volunteering. The main focus of our integration strategy is the

involvement of employees in these projects. This includes not only corporate volunteering outside the firm (e.g. Daimler's 'Day of Caring'), but also volunteering with a higher connection to Daimler: in-house volunteering. If employees are able to actively live corporate values during their work, their identification with Daimler will improve. An example of in-house corporate volunteering are the language courses for interns at the bridge internship. Daimler employees, who might already be engaged in teaching refugees outside the firm, are given the opportunity to volunteer in collaboration with Daimler. Through having the possibility to actively live individual values by participating in corporate volunteering, employees experience self-integrity[3] in the workplace. A higher individual integrity is positively related to higher organisational commitment. (cf. Brockner/Senior/Welch 2014: 2 ff.).

Corporate Volunteering does not only improve self-integrity and thus organisational commitment, but can also lead to higher integrity in teams.[4] Volunteering projects, where employees of different departments work together, are a very efficient measure for overcoming prejudice and removing negative stereotypes. Consequently, teamwork skills and the feeling of belonging will improve (cf. Habisch 2011: 229 ff.).

3. Corporate Integration Strategy as a Tool for CSR

3.1 From Entry to Labour Market Access

There are substantial differences within the refugee community regarding age, gender, level of education (including language competence), talent and residence status. The latter proves to be especially challenging in practice. Companies willing to run long-term integration projects necessarily need to rely on the advice of the Federal Agency of Migration and Refugees and the Federal Labour Office concerning refugees, with a high probability of receiving a residence permit. Depending on the legal status of a refugee, certain measures make more sense than others. To simplify the complex underlying bureaucratic procedures in the following, refugees will be categorised into three groups: acknowledged refugees, tolerated persons, and asylum seekers.

3 Self-integrity or individual integrity: an agent's actions are coherent with her framework of values.

4 Integrity in teams is analysed more precisely in 'Empowering Collective Integrity' by Gebhard/Schnitker/Spandick/Tjaben-Stevens (see in this volume).

Asylum seekers are refugees who are waiting for the legal approval of their asylum application. For positive asylum rulings, the refugee is granted a residence permit and legally becomes an acknowledged refugee. In the case of a negative asylum ruling, the refugee in question must either leave the country or is tolerated for a limited time period.
A meaningful integration policy must consider all these differences. The primary aim is that any refugee group, in terms of resident status and level of education, is able to benefit from corporate measures.

3.2 Components of a Corporate Integration Strategy

Concerning social integration, corporate volunteering demands that employees actively lead and execute voluntary projects. Measures which are minimally dependent on the legal status of a refugee mainly focus on in-house volunteering, to identify and be identified with the corporate values.

As opposed to corporate volunteering measures, it is reasonable to further restrict the selection for potential beneficiaries/refugees with respect to the legal status while operating with measures designed to provide entry qualifications. Entry qualifications ideally consist of long and medium-term internships, which aim to prepare the participant for a subsequent/connecting apprenticeship. This means that the participant has not yet reached the required competence for a job training. Restrictions on the legal status of possible participants guarantee that enough time is given for the learning process to evolve.

If a refugee has gained sufficient competence with regards to the domestic language and basic professional skills, it is reasonable for a company to offer an assisted apprenticeship. More generally, the term job training can refer to either an assistance during an apprenticeship or to assistance during a job. Even if their professional skills are sufficient, the participant might be faced with cultural barriers.

Lastly, assuming a refugee has proven to be valuable for the company, there is no reason not to employ them. And who else but a former refugee could be the best advisor in a company concerning continuing strategies of refugee integration? Figure 2 portrays the four key elements: corporate volunteering, entry qualifications, job training and employment.

FIGURE 2: CORPORATE INTEGRATION STRATEGY – KEY ELEMENTS (OWN ILLUSTRATION)

These elements offer a rather general frame of action, as opposed to a precise management instruction. This is due to the fact that the scope and manner in which the specific measures are carried out depends on many variables, such as the financial resources, geographic realities, employee motivation and size of the company. These variables cannot be considered within the proposed general Corporate Integration Strategy, and requires an appropriate corporate sector, preferably CSR, to reconcile these variables and the key elements.

At a first glance at Figure Two, it seems that the composition of the four elements is a circle. In this sense, there is no actual starting point or endpoint. Hence, the actual implementation of those elements must not to be carried out in a chronological linear way. By granting each element a degree of autonomy and thereby allowing an integration to start off at any given element, the Corporate Integration Strategy remains independent of residential status and level of education.

The Key Elements in Detail

To be more precise, which specific action could represent a reconciliation corporate variables and key elements?

Corporate volunteering can consist of organising and teaching language courses, or tutoring

younger children in science.[5] Children around elementary school age to mature refugees with the legal status of a tolerated person (or simply anyone in between) can potentially profit from such measures. A project on a further stage could offer employees the possibility to teach refugees that are currently working as an intern in the corporation. So called in-house volunteering or inter corporate volunteering has the potential to influence individual integrity, and thus (as shown in Chapter 2.4) the organisational commitment of the employees.

This requires a great deal of commitment from the employee, who must be willing to overcome cultural barriers. Even if this commitment is given, it can be difficult to integrate the time for corporate volunteering into regular work life. One cannot teach children maths early in the morning if that is generally the time the employee ought to be at work. Likewise, children ought not to be taught in the early evening. Again, communication between employees and departments, and adjustments concerning working hours, underline the need for commitment. The advantage of corporate volunteering is that it is beneficial for tolerated persons, asylum seekers and acknowledged refugees. Furthermore, in all cases, there is no need to get permission from a government agency to pursue these measures.

Yet corporate volunteering does not suffice the needs of the economy, the state and the refugees. In the significantly high proportion of young refugees, the economy is inevitably faced with the challenge of allowing some a fair opportunity towards reaching a human capital above the threshold of a domestic low-skilled worker. Quite frankly, this ought not to be carried solely on the shoulders of economic actors, but on political institutions too. The advantage of the economic sector is that it is closely linked to the aim of professional integration, as companies can decide best for themselves which set of skills they require – as opposed to what political institutions suspect they require. In order to guarantee a combination of, for example, state-provided language courses and entrepreneurially designed entry qualifications, measures are to be structured in a modular way. The importance of the modularity then depends on existing linguistic deficits. If a refugee does not reach linguistic level A1, it stands to reason to exclude them from the proposed measure. This is because entry qualifications ideally consist of long and medium-term internships as preparation for an apprenticeship. It follows that the aim of that very measure is to achieve an apprenticeship of entry maturity, meaning the intern acquires basic professional skills guided by the conceptual idea of the profession.

5 In this context, Corporate Volunteering does not draw a line between intra and inter corporate volunteering.

Potential beneficiaries of these measures are young refugees with a residence permit or after at least three months of stay, refugees with a temporary resident permit, as well as, in some cases, tolerated persons. In general, whether an asylum seeker or a tolerated person are granted permission to undergo entry qualification measures or not will in any case be examined by the Foreign Affairs Department.

Once the way is paved for mutually beneficial development, measures relating to training, such as an assisted apprenticeship, can be put in place. This can incorporate intermediary talks between parents, instructors and educators. Furthermore, small steps, such as providing help with how to approach the supervisor or what formalities are necessary to consider when writing to a work-related email don't require many resources in relation to the relief it can bring to the refugees.

3.3 Requirements for a Corporate Integration Strategy

Underlying the proposed Corporate Integration Strategy are three crucial requirements we deem imperative for any company to be informed about when trying to integrate a refugee. Whether it be a corporate citizen or a two-man company, only if the company reflects on these requirements can it sensibly integrate.

First and foremost, the expectations of corporations concerning the circumstances and development of a Corporate Integration Strategy have to be realistic. It is likely to be the case that refugees at the age of 16 to 21 will not possess the equivalent educational background to their domestic counterparts. By offering the same apprenticeship for refugees and domestic citizens, the former will have much greater difficulty translating the knowledge into their human capital. This partly explains why the rate of cancelled apprenticeships is relatively high among companies providing measures within old structures (Bundesagentur für Arbeit, München 2016). In summary, any measures towards integrating a refugee should be additional. Consequently, modular measures are proposed, to guarantee that professional integration remains flexible while employment can remain the guiding focus.

According to the Federal Employment Agency, the initial investment will exceed the short-term utility in terms of money and employee satisfaction. In this respect, employee motivation is another requirement that should be evaluated. As integrating a refugee into the company requires

extraordinary measures, the effectiveness depends on the engagement of the refugee and on the motivation of the employee. If the attitude within the company is overwhelmingly pessimistic with respect to this issue, providing training or internships are of no use for either side. If, however, the management is dedicated to complying with corporate responsibility, it is left to take primarily indirect and/or personal measures – supporting, to a degree, mere social integration. If, and only if, the aforementioned preliminary conditions concerning expectations, extraordinary measures and employee motivation are not met to a reasonable degree, the proposed Corporate Integration Strategy as a means to a professional integration is of no use – or worse, will lead to a waste of resources.

3.4 Current Daimler Projects Concerning Refugees

As one of the leading automobile companies, Daimler started to think globally early on. By this, it did so proactively before the refugee crisis caught the media's attention. In Germany, Daimler employees from around 140 nations work together. However, CEO Zetsche's statement during the international automobile exhibition caused a stir in the media. As the first top manager to comment on the refugee movement, he stated that it would be exactly these kinds of people that are wanted at Daimler and in the whole country. In the aftermath, the journal 'Spiegel Online' published an article accusing Daimler of using empty words (Kröger 2016). Is this justified? Analytically, we will first give an overview of the kind of measures Daimler has already taken, and consequently evaluate these steps along the Corporate Integration Strategy, in light of the accusations.

Daimler's approach to the integration of refugees concerns both professional and social integration in Germany. Moreover, in cooperation with Luftfahrt ohne Grenzen e.V., Daimler has provided immediate help for refugee camps by sending four aid trucks to the Turkish-Syrian border region, and two resource-packed flights to northern Iraq. The success of these and several other measures has depended on the numerous voluntary Daimler employees. Simultaneously, management didn't hesitate to signal its support by doubling donations that the Daimler employees gave during the employee-fundraising for the German Red Cross. Furthermore, the company decided to provide financial aid to the city Stuttgart for a Welcome-Funds. This financed educational, athletic and leisure activities executed by honorary employees - another example of the entrepreneurial integrity is the additional financial support of the civil foundation Sindelfingen, in which Daimler employees actively participate.

Together with the Federal Employment Agency and regional job centres, Daimler initiated so called 'bridge internships'. In the first round, 40 participants were trained to learn the basic skills of industrial production. The modular training was accompanied by daily language courses. After fourteen weeks, nearly all forty participants received an offer from temporary employment agencies, and two received an offer for an apprenticeship directly at Daimler. Due to the apparent success, Daimler extended this program to 300 internships. Subsequently, Daimler provided fifty additional apprenticeships for refugees as a matter of assisted apprenticeships. However, these two are not directly or strategically connected.

Certainly, a clear political stance can be derived from this. Besides the immediate help for providing resources for social integration in Germany and basic goods for refugees in camps, the accusation mainly rests on Daimler not executing decisive, strategic and professional integration. What speaks in favour of a long-term strategy is that measures are being offered in order to negate emerging competition between domestic and foreign applicants. Furthermore, the bridge internships are modularly designed, which allows the refugees to extend their scope of basic skills. Daimler is implementing measures concerning training here, such as assisted apprenticeships. Only then can a crucial qualitative human capital can be developed. But, to what degree are refugees able to develop their human capital by these measures? The Corporate Integration Strategy requires planned measures for the employment of refugees. Offering entry-qualifications and some assisted apprenticeships is definitely in accordance with this aim. Yet developing human capital in order to work for temporary employment agencies cannot be the main focus. Admittedly, it is difficult to find a qualified job with these qualifications right away, but one needs to stay aware of whether this choice of strategy may lead to the worst-case scenario. It has already been pointed out that it entails serious consequences. Daimler must therefore create measures aimed at more highly qualified workers for above low-skilled working places. It is best not to increase the quantitative number of entry qualifications, but rather the quality of entry qualifications. Furthermore, this must be strategically connected to the assisted apprenticeship. The conceptual connection will thus make it easier to employ former refugees at Daimler and at their subcontractors.

4. Benefits Resulting from Corporate Integration Strategy

4.1 How to Look at Benefits

Following a Corporate Integration Strategy offers various benefits, which we now want to look at. Most people immigrated to Germany in 2015. Hence, we are best advised to formulate the possible effects on different actors which a corporate integration will affect by referring to other studies in the field of integration or ethnical diversity.

To analyse the benefits, we will first look at the effects on society. What does it mean for a refugee to get a perspective? How will society benefit from corporate integration? Afterwards, we will focus on benefits for the company. Can integration be seen as an investment?

4.2 Benefits for Society

How can the professional integration of refugees have positive effects on German society? As we all know, integration is not a new topic for Germany, and some would even say that Germany is a country of integration, historically. In fact, every fifth German citizen has a migrant background (cf. Statistisches Bundesamt 2014). The two largest and most influential migratory flows in the last century were the return of about ten million expellees after the Second World War, and the immigration of various guest worker groups before the seventies (cf. Trost/Linde 2016). All these immigrants contributed to the economic boom in Germany, and have shaped our society (cf. Rainer/Seifert/Ulrich 1999: 197 ff.).

Currently, the arrival of more than one million refugees last year keeps the topic of integration present. Unlike the migration flows named above, this time, the migrants have totally different cultural and professional backgrounds. Our strategy will support their integration. But what benefits will this bring to society?

A Perspective for Refugees

In order to integrate into a society, professional integration is essential. One can reach financial stability and become included in a society by being part of the workforce. If a company helps refugees to learn language and professional skills, this assists them to in getting employment, it does one important thing for successful integration: it gives people a perspective. This refers to

the charitable character of corporate integration. Moreover, refugees will get to know about German culture, learn the German language, and establish initial contacts during their training. The fundamental steps of integration are thus initiated, because professional and social integration depend on each other (cf. Rainer/Seifert/Ulrich 1999: 117 ff.).

A Surplus for Society

According to an empirical study by the German Federal Employment Agency from 1980 to 2004, the local workforce benefits from immigration in the long-term: in all qualifying groups, wages rose and unemployment fell. Broadly speaking, this can be explained by the fact that the extension of the labour market supply led to more investment in the long-term. Not only did migrants not take away any jobs, but they actually improved the labour market situation. The capital base adapted to the rising labour supply, and more jobs were created. (cf. Brücker/Jahn 2010). However, when we talk about benefits for society, we must not exclusively look about economical effects. We also have to take a look at the sociological aspects that are the base at this economic impact: for integration in German society, it is not only necessary that the refugees show the will to integrate – the residents also have to accept them. If refugees can work, take part in the German economy and pay taxes, acceptance of these new citizens will surely grow. This is not only because people get to know each other at their workplace. When companies prepare refugees for the labour market, they also create a basis for a welcoming culture, because they change the status of refugees from takers to givers.

To sum up: companies will help asylum seekers with labour market access. The refugees will thus have the real prospect of a new life, and society's acceptance of them will grow – the recipe for long-term, peaceful cohabitation.

4.3 Benefits for the Company

Corporate integration is a real investment, which comes with major costs. When it comes to an investment, the management and the shareholders are always asking for the benefits and the return on their investment. From the outset, we have to make it clear that integration, from a human resources perspective, is a long-term investment. Furthermore, it must not only be considered an investment with direct financial payoff. The charitable and social character should be clear to all

parties, otherwise disappointments will occur. We will now analyse the short, medium and long-term benefits.

Short-term Benefits

In the short-term, the costs seem to be greater than the gains, though from the beginning there will also be some positive effects for the company.

By giving refugees a perspective and implementing projects, the company begins to satisfy its responsibility to society. That is certainly well received by stakeholders, especially NGOs (cf. Doh/Guay 2006: 47 ff.). Moreover, corporate integration will shape the brand image of the company. Since refugee integration is demanded by many sides, such projects can quickly attract the attention of the press. In this way, a company that participates in the integration of refugees can have media-effective marketing. Studies show that if a consumer is aware of the CSR activities of a business, they review the corporate brand better, whereby employee-related CSR activities are the biggest driver of brand recognition (cf. Backhaus/Woisetschläger 2010: 46). Which employee-related CSR activities gain more attention than corporate integration? A new social perception of the company is created: the enterprise as an actor with a social conscience and the will to address a current issue.

One possible accusation is that integration only serves to create a more positive image of a company – so-called green-washing. However, here there is a meaningful and long-term Corporate Integration Strategy being proposed. Furthermore, we want to make clear that marketing is not the aim, but one positive effect of our Corporate Integration Strategy.

Last but not least, the refugee can already provide their contribution in terms of diversity potential: ethnic diversity in teams can enable innovation, creativity and meaningful dissent (cf. McLeod/Lobel/Cox 1996: 248). The refugee may shake up the homogeneous group, give feedback or criticise from a completely different angle.

To sum it, the initial benefits of integration will be marketing advantages, the access to diversity potential and the satisfaction of certain stakeholder-claims, like social commitment, local projects and the remaining examples from 2.2.

Medium-term Benefits

During the execution of integration measures, there will be positive social effects for the trained refugees and employees. The impact for the refugees has already been explained in Section 4.1. In this phase, they will mainly improve their language skills, have practical experience in the workplace, and become embedded in a social environment.

The employees taking part in these projects will begin to further identify themselves with corporate values like social responsibility, and thus start to identify more with the company. The attitude to work will also change: a refugee mentor finds new motivation when they know that they can create added value for and give a new perspective to another person. The purpose of this work is made accessible to the employee and this creates a positive attitude, one which will quickly affect the whole work atmosphere. Studies at the Purdue University, USA prove that the implementation of CSR projects results in "higher levels of motivation, productivity, and job satisfaction" (Rupp 2013: 922). At the same time, the employee is faced with new challenges, and personal development takes place, especially in terms of social skills.

Both refugees and employees continue developing and building new skills by promoting and challenging each other.

Long-term Benefits

When we take the long-term benefits into account, we consider this to be any time after the first integration projects are finished. In an ideal case, the refugees who took part in the company's Corporate Integration Strategy are employed and well-integrated into German society. If this is the case, there are three large benefits: successful projects lead to a sense of accomplishment among employees, the refugees are in employment, and meaningful integration has taken place, which in turn has led to more social ease. But what does this success mean for the company?

At first, it has created a unique workforce for all participants in the Corporate Integration Strategy. After enjoying a whole new form of training, the participants in the Corporate Integration Strategy are exemplary employees: those who organised the projects are responsible and developed workers, with social empathy and staying power. The employed refugees are thankful, loyal and professionally trained, and they counteract the alleged shortage of skilled workers in a particularly meaningful way. The initial investment is now paying off, especially in the HR sector.

Overall, the working efficiency and the innovative spirit of the company have changed: ethnically diverse teams use their diversity to make the company fit for global competition. The cosmopolitanism of employees makes them more receptive to new ideas and creativity and well-trained refugees do the specialist work they have perfected over their long apprenticeship – they have actually grown into their jobs.

Moreover, the company is now skilled in terms of integration, and knows how to deal with ethnic diversity – a feature that can only be an advantage in this globalised world.

The Company also created a new brand image. All the stakeholders consider it to be a business that takes human rights seriously, that stands up to huge social challenges and master's them.

5. Discussion

Without a doubt, integration is a challenge that needs to be addressed, and the reasons go beyond the financial stability of the state. Integration demands that all actors participate: politicians, society, big corporations and small companies. This paper primarily focusses on corporations, as we tried to show the immense complexity that this challenge poses for them. In this sense, we suggested only a framework of action for corporate integration, as opposed to precise instructions for management. Variables like the attitude of a company's employees towards refugee integration, with respect to fear and prejudice, differ in every corporation.

Considering all these uncertainties makes it extremely difficult to project benefits. Why should companies engage in integration?

In spite of the ethical arguments, we aimed to justify the necessary steps from a business perspective by listing positive materialities. We made it clear that the success of refugee integration in companies depends on the flexibility of the practical measures, and also on expectations and attitudes towards integration. From this perspective, it makes even more sense to classify corporate integration as a CSR issue, because this already is a statement about the company's attitude: refugee integration is an act of responsibility for society, even though the benefits will be economic. After successful integration, the corporation may gain in diversity potential, employee satisfaction and the mitigation of skills shortages.

All these benefits are not directly linked to mere profits. Therefore, it doesn't come as a surprise that the Dax-30 corporations have been struggling with employing refugees (Astheimer 2016). There needs to be more discussion about how the government can create incentives for important issues like these, in order for corporations to work more with integration.

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VALUE POSITIONING IN THE AUTOMOTIVE SECTOR

Empowering
Collective Integrity

Empowering Collective Integrity

How to Avoid Threats to Integrity within Corporate Group Processes

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Keywords

Corporate Integrity, Group Processes, Groupthink, Diffusion of Responsibility, Pluralistic Ignorance

The aim of this article is to examine how corporate integrity can be empowered. In today's corporations, operating within groups is an essential part of the working process while bearing risks for integrity: individual integrity is insufficient. We will introduce a new concept of integrity, collective integrity, and analyse the following socio-psychological phenomena: diffusion of responsibility, groupthink, pluralistic ignorance and perceived injustice. As these phenomena can cause moral misconduct in a group, we will apply them to a business context and analyse how each can be prevented. We will conclude by suggesting four possible measures, the so called 'Golden Rules', with which the aforementioned phenomena can be prevented. By implementing the Golden Rules, corporate integrity can be empowered by empowering collective integrity.

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1. Introduction

In 2015, the Volkswagen AG posted a net loss of €1.6 billion, the biggest loss in the company's history. In a settlement with the US Environmental Protection Agency and private car owners, Volkswagen agreed to use up to €13.22 billion for buybacks, repairs and the support of environmental projects (cf. author unknown 2016). The monetary loss was accompanied by huge damage to the company's reputation. This was all due to 'Dieselgate' – Volkswagen's manipulation of the emission values of 11 million cars worldwide, and the biggest scandal in the automotive industry for many years.

Integrity within a corporation, as this example shows, is crucial for its economic success. A company needs to be trustworthy in order to ensure good customer relations. When immoral actions become public, that can lead to significant profit losses. Furthermore, a lack of integrity lowers employer attractiveness. Besides economic reasons for the significance of integrity in a company, there are also normative reasons. In a globalised world, big companies have a fundamental influence on society as a whole, be it through working standards, price policies or actions which threaten the environment. With so much power there also comes great responsibility, which the companies should not underestimate.

Coming back to the Volkswagen example, we must ask ourselves whether such a lack of integrity can also occur at other companies, and how this could be prevented. Dr. Dieter Zetsche, CEO at Daimler AG, claimed that manipulations like the ones Volkswagen used would not be possible at Daimler: "I am quite confident that, if someone at Daimler had such an idea, there would be others who would say 'We do not do things like that.'"[1] (Neidhard 2016). Stating this, Zetsche relies on the individual integrity of employees at Daimler. He is sure that, if they came across potential moral misconduct, employees would stand up against it, and that this would ultimately hinder developments such as those at Volkswagen. But is individual integrity really sufficient to avoid moral misconduct in a corporation? We think it is not. In a corporation, it requires more than the integrity of individuals to guarantee that the company's values are not harmed (cf. Bazerman and Tenbrunsel 2011: 13 f.). In this paper, we will introduce a new concept

1 Original in German: "Ich bin nämlich sehr zuversichtlich, dass wenn bei uns jemand auf eine so Idee käme, würde diese Person sehr schnell auf andere Personen treffen, die sagen würden, 'So was wollen wir nicht tun, so was tun wir auch nicht'."

of integrity: collective integrity. We will analyse psychological phenomena which occurs in group processes, and which can lead to moral misconduct. Afterwards, we will develop some 'Golden Rules' to prevent this, and to sustain integrity within a corporation.

2. Integrity and Group Processes

2.1 Concepts of Integrity

With integrity one of the buzzwords of today's corporate responsibility literature, one might become confused as to what integrity actually entails. Does integrity equal acting morally? Or is it a value which can be part of a personal set of values? As integrity is the central concept of this article, it will be analysed with regard to three different definitions. Integrity entails that an agent's actions, beliefs and measures are based on a coherent set of principles. Although integrity is sometimes almost used synonymously with 'morality', this does not really meet the point. Integrity itself is a concept without any normative value. Agents of integrity might even act immorally, if their framework consists of immoral principles and values. Assuming an agent chooses values and principles that are not hazardous, integrity is closely connected to morality. Usually, one distinguishes between two different kinds of integrity, depending on who the agent is: individual and corporate integrity. The common understanding of integrity is the concept of individual integrity. This refers to the agent as an individual who always acts congruently with their personally defined set of values and principles. When it comes to a corporate context, corporate integrity is an essential concept. If we speak of corporate integrity, the corporation acts as one agent in harmony with a set of values and guidelines it has given itself: its corporate values. Today, almost every company has defined its own a set of corporate values, sometimes implicitly expressed in the code of conduct. But what exactly does it mean when a corporation with several thousand employees 'acts according to its own set of values'? It means that every action and decision in this company, every business practice, is congruent to the company's values. The crucial point is how this goal can be reached. Intuitively, it seems necessary that every employee of the company acts with individual integrity, likewise following their own 'moral compass' and the company's values. We state that this is in fact necessary, but not sufficient for ensuring corporate integrity. The reason for this lies in the way corporations function.

In the corporate environment, there are not only isolated individuals working separately on projects but groups of individuals working together on projects of great importance for the corporation's success. Both individuals and groups contribute to the functioning and success of the corporation. To reach corporate integrity, it is therefore necessary that both groups and individuals act with integrity (cf. Bazerman and Tenbrunsel 2011: 15). Working in teams involves certain risks surrounding integrity. Even if all the members of a group behave with individual integrity, there is no guarantee that they will act with integrity when working in a group. Therefore, we have introduced collective integrity as a new concept of integrity. Collective integrity means that groups act with integrity: the group is the agent which acts according to a given set of values. In a corporate context, these would be the corporate values. In order to achieve corporate integrity, it is necessary to reach collective integrity as well as individual integrity within the corporation. Therefore, collective integrity needs to be empowered.

2.2 Empowering Group Processes

As there is definitely a high risk of the loss of integrity within group processes, why should we keep working in structures like those described before? Would it not be easier to resume individual work, cutting out the part of a group process in which misconduct can occur? As numerous studies have shown, working in groups generally has many benefits, as a surplus in knowledge and abilities can be evoked through the combination of various people. Working in groups bears significant potential for innovation and productivity. It not only helps to highlight and apply peoples' strengths, but can compensate for weaknesses as well. The members of the group combine their strengths and skills, as teamwork gives an opportunity for improving the individual as well. Giving a synergetic effect, a group can be more valuable in skill than the sum of its members. With the analysis of socio-psychological phenomena and the following Golden Rules, we want to empower collective integrity, as the potential for it has not yet been realised. For this, it is important to make a distinction between empowering an individual in a corporate environment and enabling them to do something. Typically, enablement describes the allocation of certain rights and freedoms for people, giving them room in which they are able to act. A corporation ideally enables employees insofar as it provides them with all the liberties to optimally do their job. It helps to not have interference from restrictions that might slow down the fulfilment of tasks, in as far as the corporation deems it permissible. Empowerment presupposes

a certain degree of enablement, and indeed goes further than this: it motivates individuals to use their freedoms and capabilities (cf. Rappaport 2000: 43 ff.). The idea here is to increase autonomy and self-determination in people in every imaginable area, in order to have them realise their full potential. With the following analysis, and with the introduction of the Golden Rules, we want to empower the synergetic effect of working in groups, through the prevention of possibly arising socio-psychological phenomena.

3. Socio-Psychological Phenomena

3.1 A Socio-Psychological Approach to Corporate Integrity

Collective integrity is especially important in corporate contexts. It provides a necessary link between individual and corporate integrity, as through socio-psychological phenomena which arise in group processes, both can be harmed. Baron, Byrne and Suls describe social psychology as "the scientific field that seeks to understand the nature and causes of individual behaviour in social situations" (cf. Baron / Byrne / Suls 1989: 6) by using phenomena to describe their impact on social interactions. In today's workplace, project work and teamwork are becoming more and more common, resulting in all sorts of group processes. We therefore believe that socio-psychological phenomena must also be applied in the corporate environment, in order to gain a better understanding of work processes. The phenomena can influence the success of an enterprise disadvantageously. Regarding integrity, the phenomena can lead to a less reflected decision-making process and to decisions that do not conform to the corporate values. In the following, we will concentrate on the five phenomena which are interlinked and most common within the workplace environment. We will look at what these phenomena entail, at characteristics and favouring factors, and apply them to a corporate context.

3.2 Perceived Injustice

Organisational justice is defined as the "employee[s] perceptions of fairness in the workplace" (Rupp/Thornton 2015). Someone who perceives organisational injustice might act immorally for two reasons. Firstly, they might want to compensate the perceived injustice. Secondly, they can develop a negative attitude towards the company and therefore not act in its favour or according

to its values. Imagine a student who puts a lot of effort into the preparation for an exam at school. After the exam, they are very confident that they will receive a good grade. A few weeks later, the teacher returns the test and the student has failed. They are very disappointed, especially because their classmate achieved a good grade with less preparation effort. Due to their frustration, they are not motivated to prepare for the next test, and are more likely to cheat in the future.

This situation is described by the phenomenon of 'perceived injustice'. The perception of whether a situation is just or unjust influences their ethical behaviour. To show that a feeling of injustice can lead to moral misconduct, we must distinguish between distributive, procedural and interactional justice. John Stacey Adams (1965: 227 ff.) defined distributive justice as the comparison between one's ratio of input and outcome with another's ratio. If the subjective ratios are similar, the outcome is seen as fair. In general, distributive justice concentrates on the employee's outcome. The outcome could be the salary, or also a promotion decision (cf. Cohen-Charash/Spector 2001: 279). Thibaut and Walker (1975) ascertained that people are willing to give up control over the final distributional decision in order to gain more control of the process. They call this concept of fairness 'procedural justice'. Process control means the control of which arguments are used, or how long they can be discussed for. The transparency of the decision is important for the perception of procedural justice. The third finding was interactional justice, by Bies and Moag (1986). They showed two ways of impacting the perception of justice. Firstly, there is the quality of interpersonal treatment, for instance shown through respect or politeness. Secondly, communication and information about the procedure and distribution are important factors for the feeling of justice.

The three dimensions of organisational justice affect the attitude one has towards a corporation from different angles. While distributive justice influences the perception of justice of one certain outcome, procedural justice influences the perception of justice for the whole organisation. Interactional justice affects how fairly the person one interacts with is seen (cf. Cohen-Charash/Spector 2001: 279). With these attitudes to the corporation, working behaviour is influenced in two ways. Firstly, distributive injustice can lead to the employee trying to compensate the perceived injustice by giving less input. This way, the ratio between input and output is adjusted. The second way is that by perceiving the organisation as unfair in procedures, an employee might develop a negative attitude towards the organisation. This can lead to not working for the benefit of it, or even to working against it. The interactional injustice has an

influence on behaviour towards a specific person, for instance a supervisor, and is not directly correlated to work behaviour opposing the organisation (cf. Cohen-Charash/Spector 2001: 279). In a corporate context, evaluation in the form of grades, as described in the introductory example, might not be relevant, though evaluation in general plays an important role.

Imagine an employee applies for a promotion in the company. They are convinced that they are perfectly qualified for the job. A few weeks after the application, they are turned down. They are disappointed, because they thought they were giving enough input in her job to get the promotion as an outcome. Also, they find out that the CEO's husband got the promotion. The employee sees fewer outcome than they deserve, but also thinks that the procedure was not transparent and fair. Through feeling unfairly treated in a distributive way, they contribute less input to work at first. They start watching videos, or call their family during working hours. The perceived procedural injustice leads to a bad attitude towards the company. It is not important for the employee to act in the company's favour anymore, so they start loading her phone and making private copies at work. This example shows how the perception of injustice can lead to moral misconduct by influencing the attitude toward specific outcomes and the organisation as a whole.

3.3 Diffusion of Responsibility

Diffusion of responsibility describes how people in a group are less likely to help others or to take responsibility for an action than if they are on their own. The most famous example of diffusion of responsibility was the case of Kitty Genovese, a young woman who was attacked in New York on her way home. Even though she screamed for help, and it has been proven that more than 30 households heard her, she did not receive any help. Diffusion of responsibility can lead to a loss of integrity in a corporation if no one in a group feels responsible for adherence to the corporation's values. If these values are therefore not considered during the working process, it is possible that they are violated by decisions made in the group. There are several factors that play an essential role in the emergence of diffusion of responsibility: group size, behaviour of bystanders, the characters of its members, and the kind of action that is refused.

The literature of diffusion of responsibility was greatly influenced by the work of two researchers, Latane and Darley. They found out that the likelihood of diffusion of responsibility increases with the size of the group. Furthermore, they were able to show that the behaviour of a group member

is significantly influenced by the behaviour of the other group members (Latane/Darley 1968: 221). In one of their experiments, they confronted subjects either alone or in a group with an unexpected, alarming event. A lone person would take action in 75% of the cases, while in a group that happened only in 10% of the cases. Latane and Darley reasoned from this that individual assessment of a situation and individual behaviour is massively influenced by the behaviour of other group members, and that diffusion of responsibility increases with the number of bystanders. As previously stated, we believe that diffusion of responsibility can also occur in a corporate environment. Spheres of risks are those where people work together without clearly assigned areas of responsibility. One example of this is email distribution lists, where the potential for diffusion of responsibility was analysed by Barron and Yechiam. In Barron and Yechiam's experiment, subjects received an email, which included direct questions and a request for help. People who thought they were the only recipient responded more quickly and more often. Subjects who realised that the email was addressed to more people than just them responded to a lesser extent. What they found, analogous to Latane and Darley, was that with the size of the group, reactions decreased (Barron / Yechian 2002: 514 ff.). Diffusion of responsibility can always occur when people group together, and is a serious threat to integrity. It is therefore necessary to take measures to prevent its occurrence.

3.4 Fear of Misjudgement

Fear of misjudgement is when people in situations of uncertainty do not trust their personal interpretation and assessment of a situation, and due to this do not take action. Imagine one hears two people arguing in the hallway. One cannot understand everything, but it seems it is getting aggressive. It is difficult to decide whether one should act or not because of missing background information. Most people tend to ignore such a fight. This can lead to immense consequences. Fear of misjudgement can lead to a loss of integrity if someone correctly observes a potential violation of corporate values, but does not address the problem. Every action is the result of a personal process consisting of three steps. First, the person needs to notice that there is a reason to act. Second, one has to evaluate and interpret the information they have. Third, they must decide that they are personally responsible for acting. The phenomenon fear of misjudgement happens in the second step, interpretation, and the crossover to step three, the acceptance of a personal responsibility. There are several factors that contribute to a loss of integrity caused by

fear of misjudgement during that process. In the following, we want to focus on three of them: the agent's character, the availability of information, and the group culture. The agent's pattern of behaviour is the most significant factor. The origin of the problem is that a person does not have the courage to act on the basis of their own assessment of a situation. The reason for the lack of courage is often a lack of confidence. Confident people trust their own opinions, and are not afraid to state them in public. Thus the more confident the individual group members are, the less likely the emergence of fear of misjudgement. A second influential factor is the availability of information. The more information is available and the better the quality it is, the more profound a person's evaluation of a situation is, and the more they will trust it.

When faced with the decision of whether to address a problem or not, people evaluate the potential consequences. If they expect negative consequences, taking action is less likely. Whether the consequences are expected to be negative or positive is largely dependent on the group culture and how the group deals with mistakes. If mistakes are handled by a compromising procedure, they are less willing to address mistakes and problems within the group. The more open and respectful the group culture is, the easier is it to state a belief based on a little information or insufficient data. As shown above, fear of misjudgement evolves in situations of uncertainty, in which there is insufficient information and people have to rely on their personal interpretations of a situation. One example of this is when an employee thinks one of their colleagues is corrupt and has been bribed by another firm to provide company information. Since they are not sure whether the secret information definitely comes from their own colleagues and are afraid of accusing an innocent person, they stay passive and do not express their suspicion.

3.5 Pluralistic Ignorance

Pluralistic ignorance describes how most members of a group reject an opinion, but believe that the majority of others accepts it and therefore act according to it. Among college students, consuming alcohol is an important factor of social life, or at least most students think it is. But do most students enjoy drinking, or do they just drink regularly because it seems to be the norm? In the USA, psychologists have examined the relationship between college students' attitudes to alcohol use and their assessments of the attitudes of their peers. The result was that, while they did not feel very comfortable drinking, they thought that the 'average student' did. Hence, most students rejected the alcohol practices but participated nevertheless, as they thought everybody

else approved. This behaviour, and the disregard of actual preferences, can be described as pluralistic ignorance. Pluralistic ignorance is a state in which most members of a group reject a belief or a group norm, but act according to it as they are convinced that the majority accept it. It is important to point out that not every misperception of beliefs or norms is pluralistic ignorance. This phenomenon is characterised by systematic errors in belief estimation. It can also be seen as a bias about a group held by this particular group. The definition of pluralistic ignorance itself makes it clear under which circumstances it applies: when personal views are misrepresented. If people do not openly express their private views, there is insecurity about what others think. In these cases, individuals rely on the behaviour of others to identify public opinion. They misperceive this, as people act according to a norm or opinion they do not actually approve of. If private views were presented more openly, pluralistic ignorance would be less likely to occur.

However, there is a problem with openly presenting private views, which favours the development of pluralistic ignorance: expressing a minority opinion within a group is seen as risky. Evidence suggests that those who voice a minority opinion experience social distancing from other group members, with a higher probability than those who express the majority opinion. (cf. Westphal/Bednar 2005) In a corporate environment, people typically want to maintain the social identity they have derived from their work group or organisation. To avoid social distancing, they tend to hold back their opinion if it diverges too much from what they think is the majority opinion. Due to pluralistic ignorance, the perceived majority opinion is probably not the actual majority opinion. This fear of voicing a supposed minority opinion is extremely damaging for the outcome of any work process, as diverse opinions and ideas help to reach a better solution. The reluctance to state a minority opinion is, up to a point, human nature and cannot be extinguished. There are however some factors which can decrease the perceived risk of voicing minority opinions, one of them being a reasonable way of dealing with mistakes. People who hesitate to express an opinion they would categorise as a minority opinion often do so because they are afraid their opinion might be wrong, or regarded as inferior by others. To reduce this fear, the implementation of a constructive handling of mistakes is necessary.

A study by Westphal and Bednar (2005) suggests that pluralistic ignorance among board members is one of the main reasons for companies keeping up a strategy in spited of low firm performance. Westphal and Bednar stress that pluralistic ignorance is a crucial factor when it comes to unethical decisions in organisations. Due to the above-mentioned processes, even board

members might fail to speak up about dubious business practices, letting the board fail in its decision-control function. An example of how, in a corporate environment, pluralistic ignorance can result in unethical decisions is the following: imagine there's a meeting to choose a new supplier for the leather used on car seats. One team member suggests working with a supplier whose standards for the workers are not traceable, but who offers good quality leather for a low price. Some of the other team members who hear that suggestion think it is wrong to choose this supplier. As the working standards are not traceable, they are probably not acceptable, which would make the choice an unethical one. But as they glance around the table, there is no dissent among the others, so they assume the majority approves of the suggestion. Why would the team members come to the idea that the others are so much less concerned about the corporation's values than themselves? As several studies have shown, the majority of workers think of themselves as more ethical than the average businessperson. As team members think that everyone else wants to choose the suggested supplier, they do not express their concern, and the team decides on the supplier. This is a case of pluralistic ignorance resulting in moral misconduct in a corporate context.

3.6 Groupthink

While group processes have many advantages (cf. Robbins/Judge 2011: 4), they can also enable the socio-psychological phenomenon groupthink, a dysfunction in decision-making that has received a considerable amount of attention from researchers. This can lead to moral misconduct within groups, as its dynamic leads members to pursue unanimity at the cost of riskier, less reflected decisions. One of the most well-known examples of groupthink can be found in the Space Shuttle Challenger disaster, which occurred just after lift-off in 1986 and killed all seven crew members on board. The day prior, NASA received a warning from the subcontractor providing the hardware, which would later fail, about the abnormally cold temperature expected for the day of the launch. Despite the warning, NASA chose to rely on previous test results, dismissing any further postponement, as they had already been delayed. Pressure was put on the engineers to conform and recommend the launch, and they were asked to hold a private meeting. Both the engineers and NASA feared the public and political response to another cancellation of the launch. Within five minutes, the subcontractor agreed to proceed, without any further objections. Up to this point, the subcontractor had adhered with its recommendation to cancel

the launch, but once isolated in a private meeting, this tenacity dissolved (cf. Bazerman/Tenbrunsel 2011: 15). The pressure that was put on the group, as well as its insulation, enabled groupthink to commence, and the team of engineers disregarded the risks in order to retain agreement.

According to Irving Janis, a research psychologist at Yale University, groupthink stands for an excessive form of agreement-seeking among members of tightly knit, decision-making groups (Janis 1972: 9 ff.). It may be disproportionate to the extent that the group members have come to value the group and their association with it more highly than anything else. This causes them to pursue a quick consensus on the issues that the group has to confront. Groupthink generally exhibits three main categories in which symptoms can occur. First, an overestimation of the group: this might be due to an unquestioned, unrealistic belief in the group's morality and an illusion of invulnerability, which may lead the group to disproportionate optimism, lesser risk aversion and to disregard ethical or moral consequences. Second, the rationalising of warnings, challenging the assumptions of the group and negative stereotyping of out-group members are signs for a promoted close-mindedness toward other influences and ignorance of new information. And third, pressure toward uniformity, characterised by an increased self-censorship of doubts, illusion of unanimity amongst the group, pressure to conform and the existence of self-appointed mind guards (cf. Lunenburg 2011: 3). A pathological loyalty to the group requires members to ignore important and even crucial information that conflicts with the collective group view which most members are comfortable with. All this can lead to serious moral misconduct. Besides identifying certain symptoms for groupthink, it is possible to connect concrete structural faults, like the insulation of the group, a lack of impartial leadership and a lack of norms requiring methodological procedures (cf. Hart 1991: 258). Situational, highly stressful external threats and recent failures, as shown in the Challenger example, can also lead to such failures. As the groupthink phenomenon can occur in any structure when acting in a group, it is also highly relevant to corporate contexts. Every group member has an incentive to be a well-accepted member of the group, as prestige and status play an important role in the working environment. Because working together on projects is an everyday concept, and team structures are increasingly implemented, groupthink is likely to occur. Imagine a committee that has to choose a manager for a new strategic project. This group of people has already had successful selections of managers and, even though this project will demand different qualities from the candidate, the members start to look for the right person, believing that, due to past experience, they know who to choose.

However, the search is not very thorough, as they rely on a narrow list of candidates that were known to them. The group ignores information, provided by the experience of other firms, highlighting the risks of the new method that the project will employ. Neither the project nor the hiring process is questioned. Even with an obvious lack of experience with the new strategy, the group does not consult experts and keeps discussions to a minimum, due to a feeling of urgency (cf. Mottola/Utkus 2009: 6). In the end, someone who is similarly inexperienced with the new strategy is selected. They are not capable of handling the new structures, and lead the company to project failure. In this example, groupthink comes into full effect as the group is insulated, the members are known to each other, and stress is put on each of them, as they feel the need to make a decision quickly. These factors result in moral misconduct, as the optimal result is not achieved, and a riskier option is chosen.

4. Golden Rules

4.1 Introducing Golden Rules

As shown before, the phenomena introduced bear a significant risk for collective integrity, and therefore for corporate integrity and a corporation's success. It is necessary to take preventive actions against their evolution, which can be done by implementing the following Golden Rules. These stop the phenomena and moreover, and have a positive impact on the working environment which empowers employees to handle upcoming difficulties. The proposed Golden Rules are designed to prevent possible moral misconduct and loss of integrity in two ways: the first two ('Addressing the Problem' and 'Creating a Forum for Learning from Mistakes') are to be executed by the corporation as a whole to influence the collective. The final two ('Appointing a Responsibility Agent' and 'A Devil's Advocate') are tools which the individuals are meant to put into practice during their group working process, in order to have a positive impact on the collective.

4.2 Addressing the Problem

Addressing the Problem is the golden rule with the broadest approach. It is designed to be applied centrally to every single employee in the company, as it is most effective this way. Addressing the

Problem means that employees are informed directly about the phenomena and the unconscious psychological mechanisms behind them, in order to prevent the evolution of these phenomena. The idea that lies behind this golden rule is that all phenomena are a form of the problem of people misjudging a situation and acting according to their wrong judgement. This is rooted in unconscious psychological processes. Therefore, when people's attention is drawn to these processes and they understand them, they are more aware of them and pay attention to their own and a group's behaviour. Employees are then less likely to act in a hazardous way. Employees should be informed about the phenomena in a clear and simple way. The information should be focused on how the phenomena evolve and which factors in every individual favour its evolution. In this way, people can check and alter their own behaviour to counteract the phenomena. It is crucial that as many employees as possible are informed about the phenomena. A way of informing employees could be an article on the intranet or a video. Another possibility would be to give presentations to certain teams. Addressing the Problem prevents diffusion of responsibility. If people are aware of the fact that in groups everybody tends to evade responsibility, they will check their own behaviour for this bias and become more active in solving problems (Darley / Latane 1968: 383). Groupthink means that within a group, people have an unrealistically optimistic assessment of situations, because they feel encouraged by one another. Being aware of this will give people a more realistic approach to evaluating situations within a group. They will pay more attention to critical views, and be more critical of themselves.

Addressing the Problem countervails perceived injustice in two ways. Firstly, if people are aware of the risks perceived injustice holds, they will pay more attention to treating their colleagues fairly. They will also be more transparent about motives for actions that might be perceived as unjust. Secondly, if someone feels unfairly treated, they will re-evaluate their perception of the situation, to see whether they were really treated unfairly or simply misperceived the situation. If convinced that someone did them wrong, it might encourage them to speak up about the situation and find a solution. What can be most effectively resolved simply by learning about its evolvement is pluralistic ignorance. The study of alcohol use on American campuses showed that when students learned about pluralistic ignorance, they reflected on their perceived norm of drinking. Instead of inferring the "norm" from their peers' public behaviour, they started discussing the issue with each other and re-evaluated their opinions on heavy drinking. As soon as the students understood the mechanism, the situation corrected itself (cf. Prentice and Miller 1993).

4.3 Responsibility Agent

To make sure that the corporation's values are considered during the group working process, we suggest appointing a Responsibility Agent at the beginning of every group process. The Responsibility Agent has the specific task of making sure that the company's values are not violated during the working process, and that they are considered when making decisions. During group projects one often assigns specific tasks to specific people, to make sure that these tasks are taken care of. For example, person X is the time taker, Y takes care of the electronic devices, and Z is the registrar. The Responsibility Agent is to be seen as another role that can be undertaken by everyone for a limited working process. The role is assigned alternately. Especially important is that it is not an additional person from outside of the group, but a member of the group. Having a special person as the Responsibility Agent is neither practical nor necessary, as this task does not require a significant amount of extra work. What it does require is being informed and engaged with the corporation's values and guidelines. Since it is cost efficient, practical and feasible for everyone, assigning the role to a member of the group is a good decision. This Golden Rule refers to the phenomena diffusion of responsibility and groupthink. Diffusion of responsibility arises when no specific areas of responsibility are designed and assigned to specific persons. Through the designation of the Responsibility Agent, this problem is solved. Since the Responsibility Agent is publicly announced, it is certain that at least one member of the group, the Responsibility Agent, feels obligated to take care of the company's values. This is also a very important step for tackling the second problem, which is making sure that someone takes action. The feeling of being responsible for a certain task is essential for taking action. The Responsibility Agent also addresses the problem of groupthink. Groupthink emerges when members of a group stop reflecting on the potential risks and damage, and the group as a whole gets in a state of excitement and uniformed thinking. Through the appointment of the Responsibility Agent, it is made sure that the values of the corporation are reflected on and not overlooked due to excitement within the group. One overall benefit of the Responsibility Agent's designation is the fact that the person carrying out that role is automatically more engaged with the values and guidelines of the cooperation.

One objection that was raised was that there might be members of the group that do not want to undertake the task of being the Responsibility Agent. If such a person is chosen to be the Responsibility Agent, they might not carry out the role well. To address this criticism, one has to distinguish between two cases for why a person might not want to be the Responsibility Agent. Firstly, we must consider someone that does not feel comfortable with being in an exposed position and taking a stand on specific topics. According to the criticism, such a person would not raise their voice in critical moments, and therefore the anticipated positive effect of the Responsibility Agent would not come about. In case two, we must consider someone that does not recognise integrity as an important element of business, or who sees fulfilling the role as unimportant, additional work. Critics would say that such a person would not carry out the Responsibility Agent's Role in a sufficient way. In both cases, it is indisputable, that the positive effect of the Responsibility Agent's designation is limited to the scope that a person actually carries out the role. But that does not mean that the designation is useless. A person that does not carry out the role does not do any harm to the group or the group's decisions, since the Responsibility Agent does not produce any negative consequences, it only produces positive ones.

Even if we assume that only in 70% of the groups does the person assigned to be the Responsibility Agent actually carry out the role in the expected way, we still have a positive effect. This is a very basic calculation, in saying that something is better than nothing. In response to the first case, it can be said that it is unclear that such a person would not carry out the role. In fact, the appointment may instead have positive effects on both the group performance and the person themselves. The reason for this lies in the structure of the role. Studies have shown that through the appointment of specific roles, people feel more comfortable with raising their voices in group discussions and are therefore more engaged in working processes. Through the role, it is easier to make controversial arguments, since these are separated from personal views and personalities. For people who are concerned about how they are seen by other group members, or who are not very confident, it is therefore easier for them to speak up. The criticism that such a person would not carry out the role can therefore be called into question. In fact, it may be the case that such a person would be an excellent Responsibility Agent. The person would become more engaged in the working process, and therefore make better-informed decisions and arguments. In addition, they might gain confidence from being heard by other group members. Studies from the MIT have shown that the performance of a group is significantly dependent on equal participation rates among all group members (Woolley / Malone / Chabris 2015) . The more people are engaged, the better the decision. Through the appointment of

the Responsibility Agent, new group members can be activated and influence the working process in a positive way. In conclusion, it can be said that the appointment of the Responsibility Agent can contribute to the empowering of collective integrity by assigning responsibility to a specific group member and by contributing to an active and open discussion culture.

4.4 Devil's Advocate

The Devil's Advocate is a similar role to the Responsibility Agent, which focuses on possible risks and downsides to the majority view of a group. It is a position which is given for the duration of a project, assigned to one of the team members. Their task is essentially to enable creative ideas for handling problematic situations along by giving constructive dissent. They have the responsibility to overlook the discussion of a project in terms of what might pose a risk, as well as to speak up and point out what problems or minority opinions might occur. This aids in implementing a working environment which allows dissent, preventing groupthink from arising and leaves room for several different opinions, which also lessens fear of misjudgement and pluralistic ignorance amongst employees.

Generally, it is important to strive for a diversity of opinions and perspectives, as only through these different points of views can a reflective decision be formed. To reach this status, the Devil's Advocate should cause all employees to think about the risks and what could go wrong (cf. Sunstein/Hastie 2014: 108 f.). As shown in the socio-psychological phenomena, people may be silent in a group process because they are afraid of judging a situation. This may stem from social norms (for instance, because one is afraid of introducing oppositional opinions or information that might lead to punishment or social sanctions) or when people misjudge the common opinion among the group, and a majority opinion is not even feasible. In well-functioning groups, a form of whistle-blowing is established which is not due to malcontent, but to a sincere desire to increase the success of the project and the group process in general. With the implementation of roles like the Devil's Advocate, we want to reach a stage where every employee feels free to give their input. Studies show that through the clear definition of roles in groups – as mentioned in Section 4.2 - each 'expert' felt more secure about presenting their opinion and giving dissent (cf. Stasser/Dietz-Uhler 2001: 31 ff.). Accordingly, "hidden information is less likely to remain hidden if there is a division of labour, in which each person is known to be knowledgeable about something in particular" (Sunstein/Hastie 2014: 111). The

Devil's Advocate might then be empowered to be an expert at exactly this: at looking at the problem at hand from a different point of view, and making sure that the situation is analysed broadly. The goal is to enable a working environment that makes it attractive to the group to disclose all the information, in order to reach an optimal solution. This proposes a different picture of a team player: not someone who always says yes for the sake of the group atmosphere, but someone who gives input in order to make the group's results as good as possible. With the insertion of a Devil's Advocate, this is signalled in the corporation – an understanding of a team player who pursues the best possible outcomes together with the whole group. "By their very nature, those assuming the role of Devil's Advocate are able to avoid the social pressure that comes from rejecting the dominant position within the group" (ibid: 117). Groupthink can be prevented with this, as the members of a project team have a new understanding of what is in favour of the corporation.

Additionally, the risk of an overestimation of the group's capabilities and self-censorship is stopped, by looking at information that is not part of the established point of view. This aspect also reduces the risk of pluralistic ignorance, as members of the group learn that it is good to voice a comprehensive range of ideas and opinions, differing from the view that is thought to be the favoured one. Fear of misjudgement and perceived injustice are counteracted by implementing a working environment, which makes the decision-making process more transparent and gives employees a better understanding of what is important for the project. In accordance with this, employees are more capable of evaluating whether their input is appreciated, and are encouraged to contribute through dissent. Issues can arise similar to those in appointing a Responsibility Agent, though in a corporate structure in which the relevance of integrity is commonly known, this golden rule can have an important impact on collective integrity.

4.5 Forum for Learning from Mistakes

The Forum for Learning from Mistakes is supposed to be a platform for exchanging and discussing which mistakes have occurred recently. The forum contributes to a corporate culture that is not focused on blaming people for their mistakes but on finding solutions and improving procedures. On a regular basis, a team comes together and every colleague shares what mistakes they have made, and what has gone wrong recently. To guarantee the success of the program, it is important to consider the right intervals and the atmosphere in which these meetings take place.

Starting with the right time intervals, it needs to be taken into account that the forum should not become a chore which stops work. Therefore, the intervals should not be too short. Nevertheless, this only occurs if the meeting happens on regular basis. Secondly, the atmosphere of the forum has a significant impact on its success. There are several factors which influence the atmosphere. One is group composition. The group should be as diverse as possible, creating an atmosphere of trust. Diversity, in this case, implies a particular diversity among different levels of hierarchy. A supervisor who admits failure functions as a role model, and therefore motivates the employees to be honest with their mistakes. A culture that is not about blaming people but makes them feel comfortable with admitting their failures can only be created by a leader (cf. Edmondson 2011). To promote an atmosphere of trust, we also suggest that the forum takes place in a team that works together in everyday life. The people should know each other very well, in order to be honest and trusting each other. Besides this, we recommend departing from the usual work environment. Examples for this would be to meet in a co-working space, in a park, or in a café. In this atmosphere, the employees are not only seen in the function of their jobs, but they are seen as individuals that can make mistakes. In the beginning, it will be difficult to motivate people to be honest and talk about their mistakes, because the culture of trust has not been created yet. So, for a start, everyone should have to describe one of their recent mistakes. This might be uncomfortable in the beginning, but will normalise by repeating the procedure a few times and creating an atmosphere of trust.

With the Forum for Learning from Mistakes, we intend to have three main points of impact on the corporation. Firstly, it helps to implement a fruitful culture of error tolerance. The fear of making a wrong decision is strongly connected with the fear of being blamed for the wrong decision. With a culture of error tolerance this fear decreases, and therefore also the fear of misjudgement. The change of culture also encourages employees to criticise decisions or ideas, because colleagues do not fear being blamed for such an action. A new understanding of good teamwork is thus implemented, and groupthink can be prevented. Secondly, it leads to a better corporate culture, based on trust and openness. This strengthens the perceived procedural justice by creating transparency. Thirdly, mistakes can be discussed, and the team can find a solution, or at least know what to change or do better next time. There is no way to eradicate mistakes from a corporation. Therefore, a Forum for Learning from Mistakes is important, using them to learn what to do differently next time. An open communication of errors makes it possible for everyone in the team to learn from the mistakes a team member has made (cf. van Dyck et al. 2005: 1230).

5. Concluding Remarks

As this article aimed to show, corporate integrity cannot be guaranteed by securing individual integrity alone. Therefore, the concept of collective integrity as a connection between the two was introduced. In corporations, not only individuals but groups contribute to success, and influence the integrity of the corporation as a whole. This article is therefore concerned with collective integrity and potential risks to it. We analysed socio-psychological phenomena, which can occur in every group process and obstruct the group's performance. In order to identify potential spheres of risk for collective integrity, these phenomena were applied to the business context. Taking these findings as a basis, we developed Golden Rules. These are measurements that stop the occurrence of the phenomena and contribute to an open, respectful corporate culture. Every Golden Rule can be implemented independently of the others. The Golden Rules work on different phenomena and have differing spheres of action. Addressing the Problem is directed to every individual, by increasing the awareness for potential losses of integrity of every employee. The Forum for Learning from Mistakes improves the handling of mistakes within a certain working group, and thus affects the corporation as a whole by contributing to a liberal corporate culture. The Responsibility Agent and Devil's Advocate promote an open, constructive discussion process and are carried out by individuals inside the group. These phenomena are a carefully chosen subgroup from a vast number of potential phenomena. By analysing such phenomena further, one could develop more Golden Rules. The Golden Rules are not a sufficient tool for preventing every loss of integrity, but their implementation can improve the performance of a group significantly, hence empowering corporations by empowering collective integrity.

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ISBN 978-3-9820784-3-4