

# **Be close to your customers – but not too close: The uncanny valley of customer closeness**

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**Abstract.** Many companies strive to create close relationships with their customers, employing what they know about them to facilitate individual offers at a maximum satisfaction of customer needs. In the following paper, we show that this established closeness to a customer can be a double-edged sword: At some point, the relationship can become too close and the resulting positive effects of customer closeness turn into negative effects on customer perception and on the relationship to the customer. In an attempt to examine this phenomenon, we transfer the uncanny valley theory, originally developed in robotics, to the management of customer relationships using a qualitative approach. An analysis of 14 expert interviews reveals that it is indeed possible for customer closeness to become too high. We explore the consequences of too high customer closeness for practice, but also for future research in (relationship) marketing.

**Keywords.** relationship marketing, customer closeness, uncanny valley, customer relationship management

## **Introduction: “Be close to your customers”?**

Over the past three decades, it has become widely acknowledged that fostering long-term relationships with customers is particularly advantageous for companies and organizations from an economic perspective (Berry, 1995; Reichheld & Sasser, 1990). In this context, relationship marketing has become an established part of marketing (Bruhn, 2022; Grönroos, 1994; Gummesson, 1994). The core idea of this concept is to manage a company’s customers over time, e.g., to view customer recruitment, customer retention, customer recovery, and, if necessary, customer rejection as instrumental areas (Bruhn, 2022, pp. 12, 74).

The concept “closeness to the customer” is of central importance here: As early as 1982, Peters and Waterman (1982) identified closeness to the customer as one of the key characteristics of successful companies. Further work by other scientists in the field followed (e.g., Barnes, 1997; Danneels, 2003; Homburg, 1998; Mende et al., 2013).

Technical developments in recent years have created even more opportunities, and continue to do so: CRM and big data systems, along with algorithms which are increasingly analyzing and predicting purchasing behavior (“predictive analytics”) make it possible to address customers on a highly individualized level and thus build close relationships with them (e.g., Aguirre et al., 2015; Landmann et al., 2023).

At the same time, there are discussions about whether there can be “too much” customer closeness. For example, in an empirical study in the financial services sector (Barnes, 1997, p. 786) found that 40% of customers want a closer relationship with suppliers – but there is also a group of 9.9% of customers who would prefer a less close relationship.

This is where this paper comes in: In the following we seek to extend the theory of the uncanny valley, originally developed in the field of robotics (Mori, 1970), to the management of customer relationships through expert interviews. The aim is to provide a more refined theoretical explanation of the phenomenon whereby excessive closeness to the customer is theoretically explained in greater detail. Finally, we derive corresponding implications for both research and practice.

## **Theoretical framework: Uncanny Valley**

In 1970, Japanese roboticist Masahiro Mori proposed the theory about the uncanny valley (Mori, 1970; Mori et al., 2012). The theory describes that increasing human likeness in technology, or specifically robots, has a positive effect on people's perceptions – but only up to a certain point: beyond this point, people perceive even more human likeness as uncanny, at least within a certain interval (see Figure 1 in the appendix). Whether this actually improves again after the “valley” is a matter of scientific debate: Bartneck et al. (2007) argue that it might be more accurate to assume an “uncanny cliff”.

The uncanny valley has been transferred to various research fields, including marketing. For example, D’Rozario (2016) used the uncanny valley theory to explain how customers perceive animated dead celebrities in marketing and advertising. More recently, there have been other approaches that focus on the uncanny valley of AI systems and chatbots (Hecker et al., 2024; Song & Shin, 2024): The uncanny valley theory was often discussed here in connection with theories of anthropomorphism and the CASA theory (Computers Are Social Actors, an example is that some people say e.g. “Please” to voice bots like Alexa) (Araujo, 2018; Nass & Moon, 2000; Nass et al., 1994; Reis et al., 2018). Moreover, perceiving technology as eerie can be comparable a perception of creepiness, which arise when customers perceive a violation of their personal boundaries (Moore et al., 2015). For example, Spilinek and Jorgensen (2025) report

that interviewees get feelings of creepiness when viewing ads which appear highly personalized.

One of the few approaches that explicitly links the uncanny valley with relationship marketing comes from Peighambari et al. (2011). They argue that the excessive use of customers' personal information for marketing purposes can push customers into "the uncanny valley". In their graph the x-axis represents the extent of quantity and quality of personal information whereas the y-axis represents the customer reaction hypothesizing the following: First, the more companies try to show their customers to which extend (quantity) they have access to their personal information, the more it scares customers. Customers don't react negatively if companies are using personal information such as products or services purchased, time of purchase, or method of purchase. However, if companies strive to collect and use sensitive personal information such as race, ethnic origin, or that concerns an individual's health, then it will suddenly have an extremely negative impression on them. Second, the more personal information firms utilize and the more companies try to show their customers that how well they know them (quality), the more it alarms customers. Most customers are unaware about how much of their personal information is being collected. Therefore, the more companies try to show their customers where they are going and what they buy, the more it alarms them; thus, relationship marketing descends into the uncanny valley. More than 30 years after the emergence of relationship marketing, it seems to make sense not to maximize closeness as part of a customer relationship, but at least (critically) question the principle from a certain point. Hence, the goal should be optimization instead of maximization, including the possibility that there can be "too much" closeness. Peighambari et al. (2011) do not directly address "closeness to the customer" but the usage of personal information reflects an important facet of customer closeness' interaction dimension. However, the construct customer closeness is much broader defined than by Peighambari et al. (2011). As a result, it may be advisable, if not necessary, to investigate other causes for the emergence of the uncanny valley of customer closeness.

### **Uncanny valley of customer closeness: Method**

Taking the concept of the uncanny valley from Peighambari et al. (2011) as a starting point, we adapt it to the broader construct customer closeness, adjusting the axes to customers reaction (y-axis) and customer closeness from a supplier's perspective (x-axis) (see Figure 2 in the appendix). In a second step, we divide the process into three phases: The **first phase** is the enrichment phase, particularly at the beginning of the customer relationship. When customers start the relationship with a company, they would be glad to see companies trying to establish relationships with them and they will prefer companies who are personalizing and customizing their goods and/or services to meet their individual needs. In the **second phase**, the endangerment phase, the company intensifies its efforts to build customer closeness. In this phase, increased contact frequency or increased personalization can lead to reactance. The **third phase** – the recovery phase – was not addressed by Peighambari et al. (2011). Nevertheless, it is important to identify ways out of the uncanny valley without losing customer closeness and having to end the customer relationship.

In order to test the plausibility of applying the uncanny valley theory to customer closeness and, in particular, to develop recovery methods, expert interviews were conducted in addition to the literature review. We decided to interview experts rather than customers first, because at this early stage of the transfer of the model many questions were still unanswered and the level of abstraction was very high. A total of 14 experts from marketing research and practice, as well as from related scientific fields such as human resource management, psychology, and sociology, were interviewed as part of a semi-standardized qualitative interview. In addition, to ask about the possible transferability of the model to customer closeness, the interviewees were

also asked about their assessment of the customers' perceptions in this context. The interviews took between 32 and 66 minutes. The interviews were conducted in German. Afterwards, the excerpts cited in this paper were translated into English.

## **Uncanny valley of customer closeness: Results**

### *Enrichment phase: Improving customer relationships*

Following the uncanny valley theory, it can be assumed that customer closeness has a positive effect on customer relationships if a company's activities to build customer closeness have the intended positive effect here (e.g., Barnes, 1997; Goodwin & Gremler, 1996; Homburg, 1998).

Both the scientific literature and the expert interviews (particularly: E2, E4, E7, E8, E13) address the important role of **communication**. For example, the exchange of information enhances the value of the relationship and can also strengthen the trust in it (Anderson & Weitz, 1989; Doney & Cannon, 1997). In line with this, E2 stated:

„And that just leads to staying more involved, because I myself have invested a lot. When the company asks me something and I answer and communicate, then I have already contributed a lot myself to this social situation” (E2)

One explanation for the positive effect is based on the theory of **relationship investment**. According to De Wulf et al. (2001) relationship investment is a subjective variable that includes customer's perception of the company's investment in the customer relationship. The customer may perceive this investment on the part of the company as a sign of appreciation, which in turn has a positive effect on the customer relationship. Applied to customer closeness, the focus is therefore on giving the customer the impression that the company explicitly respects and takes into account their wishes with regard to interaction.

“[...] that give the customers the feeling that they are indeed a valuable customer. So that as a person and as a customer they are somehow recognized and appreciated.” (E1)

### *Endangerment phase: Tumbling into the uncanny valley*

The second phase, although previously neglected in the literature, is (particularly) important when following the theory of the uncanny valley (Mori, 1970):

Summarizing the expert's statements in connection with the existing literature, a distinction must be made between how often a company gets close to its customers (quantitative measure of closeness) and how close it actually gets (qualitative measure of closeness). However, according to the experts, these dimensions of customer closeness are associated with customer reactions in different ways.

“I could also imagine that the quality of customer closeness is positively correlated with the customer reaction. But not necessarily the quantity of customer closeness.” (E9)

In terms of quantity, negative perceptions of closeness can arise when such interactions cost customer time or disturb them.

“When it becomes too much. [...] when the customer gets the feeling of being kept from work or from more important things. Then customer closeness also has a very negative effect.” (E12)

Special aspects such as **fear of abuse** may also come into play. For example, the use of highly personal information may increase the relevance of an offer in a positive sense, but it may also

cause mistrust if customers are unaware of where the information comes from or how the data they disclose is handled in general (Landmann et al., 2023; Peighambari et al., 2011). This is known and intensively discussed as “personalization paradox” (e.g., Aguirre et al., 2015; Chen et al., 2019; Karwatzki et al., 2017). New developments in the field of big data and AI are progressing so rapidly that individual steps in **data collection** and **data analysis** are sometimes no longer comprehensible to customers, which can actually trigger a feeling of “uncanniness” rather than closeness, as one expert explicitly states:

“The website of a provider processes all the information available about me [...] (and designs) via algorithm the offer that best fits me. Then that might still be okay [...]. Like, if the first product shown is the one that probably appeals to me the most. But if it tells me: Hello, you are probably between 30 and 40, you live in [mentions place of residence], you work on a 27-inch iMac. [...] Then I would probably find that pretty uncanny.” (E7)

Another special aspect is a possible fear of losing **control** and, in some cases, reduced freedom of choice. The feeling of being in control of a situation can have a significant impact on well-being and can positively influence performance as well as pain and frustration tolerance (Noone, 2008). Certain forms of customer relationships, e.g., dependency relationships due to long-term contracts, but also situational aspects can influence the perception of freedom of choice. For example, an intensive personal approaching in the store can make the customer feel disturbed.

“So basically, it’s good if there is sales staff there at first [...] and ask: ‘Can I help somehow?’ [...] I have also sometimes had the experience that this already felt almost too close [...]. So, I think I also never want to be addressed right away as soon as I enter the store.” (E5)

With regard to all of the aspects mentioned, it should be noted that these are likely to be perceived differently depending on the product or service, the market segment, and, in some cases, the cultural environment: In the case of particularly intimate services, such as those in the medical field, it can be assumed that customers desire a greater degree of anonymity outside of the doctor-patient relationship.

“There's definitely a creepy factor at the doctor's office too. [...] If the doctor were to read your smartphone in the waiting room, so to speak. And run facial recognition [...] and check your Facebook profile before you even enter the consultation room. And he says: ‘[...] You don't need to say anything, here are your antibiotics.’” (E7)

Within the doctor-patient relationship, however, it also seems plausible that customers desire greater customer closeness due to the intensive nature of the doctoral consultation and the greater dependency of the patient on the doctor.

#### *Recovery phase: seeking a way out*

If a customer shows reactance toward a company's attempts to building closeness, the appropriate course of reaction depends on the nature of the initial approach and the source of reactance. The following managerial responses can be considered.

If the customer feels too pressured or violated in their privacy, an **explanatory conversation** combined with an apology or a small compensation may resolve the issue.

“They would really have to be honest about where they got this information from and, of course, also make a promise that [...] they will no longer use it and just leave me alone once I have raised a criticism.” (E2)

Most of the experts interviewed recommended a personal conversation in order to address the customer's concerns adequately. Here, too, the customer's personal preferences should determine the medium. Apart from the medium, long-term, personal support, e.g., in the form of a dedicated contact person (Bendapudi & Leone, 2002), which goes beyond the actual product purchase or service provision, can also have a positive impact on the quality of customer closeness. This could reduce mistrust of product recommendations based on previous purchases.

“[...] a salesman [...] that you just get along with quite well. [...] That would be the other option, the personal approach or personal contact with the customer then.” (E10)

To enhance the quality of customer closeness, it is advisable to increase the **relevance** of communication content. This can be achieved, for example, by asking customers about their preferences. Customers can often specify topics they would like to receive information about. However, it is important find the right a balance between potentially annoying inquiries and generating valuable insights.

“So, basically, really living customer closeness here, as the term suggests, in the sense of asking about customer preferences.” (E4)

Due to the large number of customer relationships, it is generally not possible for a company to respond to each contact rejection individually and conduct personal conversations. The ideal of even greater closeness is often not feasible due to time and personnel restrictions, and is also not economical. If the customer requests the end of the relationship, it is therefore important to follow the request.

“[...] what's important here is that, for example, when the customer has once said, ‘okay, for now I don't want any contact,’ that this is accepted and that the company also takes it very seriously. That, too, I believe, is again a part of appreciation [...]” (E1)

## **Conclusion, Limitations and Future Research**

As shown, it can be anticipated that increasing customer closeness can improve customer relationships – but it also has risks. Companies are therefore faced with the major challenge of carefully planning and managing the appropriate degree of customer closeness. A particular challenge here is that different market segments have different perceptions and needs. Accordingly, particular caution should be exercised in all managerial actions to ensure that alternatives are available for customer segments which are unwilling to engage in certain approaches.

In addition to the customers themselves, the experts noted that services and products influence which aspects of customer closeness are perceived as positive or negative. There may also be differences within a single industry, as the corporate culture and the values communicated to the target groups will determine the degree of closeness desired by individual customers (Bhattacharya & Sen, 2003). The discussion about “brand purpose” and the values/standards communicated by companies (e.g., Siems et al., 2025), which has become extremely relevant recently, should therefore also be taken into account. In this context, it can also be assumed that phenomena such as customers becoming more critical of marketing activities (Hemker et al.,

2021) further highlight that companies should be cautious when getting too close to customers, thus demonstrating the relevance of the approach shown.

In this paper we attempt to explore an important phenomenon based on expert interviews and a review of the literature. For future research, qualitative and quantitative customer surveys can be an exciting next step for testing and concretizing the proposed model. It may also be exciting to expand the model to other stakeholders, specifically employees. It seems plausible that similar phenomena (“closeness is positive, but only to a certain extent”) could be explored in this domain. The particular relevance of digitalization and digital services to this topic would also be insightful to explore. There appears to be great potential for further research and practical applications. However, one insight can already be noted across all industries, which ideally every marketing manager should take into account: **Be close to your customers – but not too close.**

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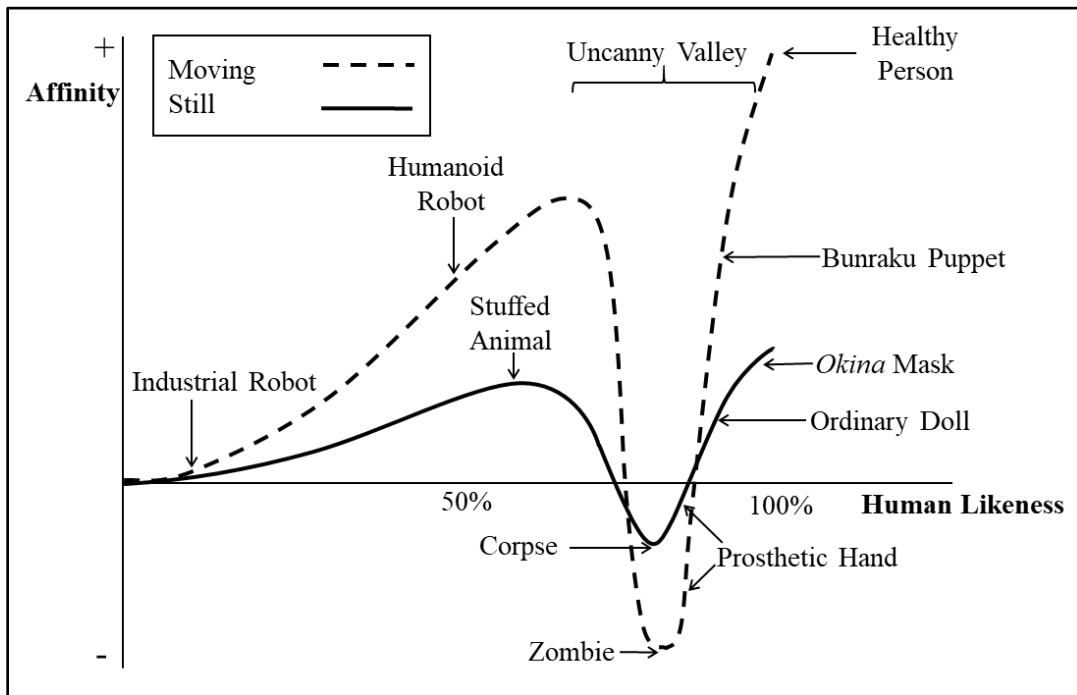
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## Appendix

**Figure 1**

*The uncanny valley*



*Note.* Adapted from Mori et al. (2012)

**Figure 2**

*Illustrative sketch of the uncanny valley of customer closeness*

