Physical proximity as pleasure or pain? A critical review of employee–customer proximity in sales and services settings

Tobias Otterbring¹

Received: 18 January 2021 / Revised: 12 November 2021 / Accepted: 28 November 2021
© The Author(s), under exclusive licence to Springer Nature Limited 2021

Abstract

This paper presents a critical review of published findings pertaining to the physical proximity between employees and customers in various sales and service settings. Following an overview of this stream of research, reflections are then offered on how the concepts of personal space and physical proximity may have changed in terms of their financial and well-being-related effects as a function of the COVID-19 pandemic. Due to the risk of infection in interpersonal interactions, and despite the affiliative aspects associated with physical proximity, recent recipes for success—as advocated by academics—may eventually have a negative impact on multiple crucial metrics in a post-pandemic world, such that employees' physical proximity to customers may soon come with a wide array of costly consequences. The article concludes with a set of future research directions.

Keywords Physical proximity · Proxemics · Personal space · Employee–customer proximity · Space violations · COVID-19

Introduction

A large body of literature has demonstrated positive links between physical proximity and several interpersonal variables (Back et al. 2008; Preciado et al. 2011; Priest and Sawyer 1967), such as compliance rates and perceptions of warmth, friendliness, and social affiliation (Ernest and Cooper 1974; Fay and Maner 2012; IJzerman and Semin 2009; Patterson and Sechrest 1970). Lay beliefs and books on personal selling techniques further suggest that employees in sales and service settings may benefit from being in customers' immediate vicinity, given the positive financial outcomes proximity is assumed to produce, beyond customers' perceptions of employee warmth, attentiveness, and friendliness (Otterbring et al. 2021d; Smith and Seymour 2014).

This article presents a critical review of published proximity findings from sales and service settings with respect to employee–customer proximity. Studies on customer–customer proximity and other forms of proximity (e.g., Argo

et al. 2005; Jia et al. 2017; Luck and Benkenstein 2015) as well as proximity investigations that are not closely tied to consumption-related decisions or outside typical consumption contexts (e.g., Albert and Dabbs 1970; Mencl and May 2009; Patterson et al. 1979) are beyond the scope of this article. After an overview of scholarly work dealing with the physical proximity between employees and customers, and the corresponding key variables examined in this overarching topic domain, a discussion follows on whether and how the financial and well-being-related consequences of personal space and physical proximity may change during and after the ongoing pandemic. Considering the cruel COVID-19 circumstances, with salient social distancing regulations, publicized death rates, and media messages centered on viruses and infectious diseases, it is plausible that the physical proximity between employees and customers may evoke different emotions and behaviors than what used to be the case under more regular, pre-pandemic conditions (Otterbring 2021a). In closing, the article highlights several avenues for future research. Figure 1 presents a conceptual model of the main variables examined in the reviewed studies, with employee–customer proximity operationalized as the real or perceived physical distance between an employee (or, when applicable, another person associated with a particular company) and a customer in terms of the customer's consumption-related responses.

✉ Tobias Otterbring
tobias.otterbring@uia.no

¹ School of Business and Law, Department of Management, University of Agder, Universitetsveien 17, 4630 Kristiansand, Norway

Fig. 1 Conceptual model

Employee–customer proximity

Positive proximity effects

Jacob and Guéguen (2012) examined the impact of employee–customer proximity on tipping likelihood and tipping amount at restaurants in France. Five waitresses altered the physical distance between themselves and lone diners when taking orders: 15 cm (0.5 feet), 45 cm (1.5 feet), and 75 cm (2.5 feet), respectively. The first distance is within a certain region called the intimate zone, which is mainly reserved for individuals' most intimate acquaintances, whereas the latter two distances are within the personal space zone, where people typically only voluntarily allow close friends (Hall 1966; McElroy et al. 1990). As such, although the authors claim that the distance of 45 cm constitutes the norm in this consumption context and country (with this distance being at the borderline of the intimate zone, which is said to start below 45 cm or 1.5 feet), the study can be said to compare instances of extreme proximity with only milder intrusions of customers' personal space. The findings revealed that the closest (15 cm) condition was associated with a significantly greater tipping likelihood and significantly higher tipping amounts than the other two conditions, whereas these latter conditions did not differ significantly on any of these metrics. Like most field-based investigations, this study lacked a proper manipulation check, which means that it is difficult to explicitly conclude that the waitresses behaved consistent with the desired manipulation.

Esmark and Noble (2018) presented four studies, which jointly aimed to examine the impact of physical proximity between an employee and a customer on the customer's subsequent purchase intentions. Their initial study, which was conducted in a field setting, used a 2 (proximity: close, far) $\times$ 2 (product: expressive, non-expressive) between-subjects design and included lone female customers whose physical proximity to a confederate employee (one of the authors) was varied, with the product in question either said to be expressive (nail polish) or non-expressive (makeup remover).¹ The confederate was either standing close by or

farther away from the customers, approximately 30 cm (1 foot) or 3 m (10 feet) away, respectively. As such, this study contrasted one distance within the intimate zone (below 1.5 feet) with another region, which is commonly referred to as the social zone (4–12 feet or 1.2–3.6 m), synonymous with the distance people prefer in relationships that are more impersonal in nature (McElroy et al. 1990). However, no manipulation check was reported in this study either, making it difficult to confidently conclude that these distances were adequately manipulated. Moreover, the confederate did not interact with, acknowledge, or have eye contact with the customers, making the manipulation rather unrealistic in the close condition, given that employees who are standing only 30 cm away from customers tend to interact with them in some way.

As the key outcome variable, the authors relied on purchase intentions, here conceptualized as a customer leaving the in-store area either with or without a product. The results revealed that customers were significantly *more* inclined to purchase the non-expressive product of makeup remover in the close (vs. distant) condition, whereas they were directionally but not significantly *less* inclined to purchase the so-called expressive product of nail polish under such circumstances, making the authors conclude that employee proximity had a stronger impact for less expressive products. Yet, these findings applied after inclusion of two covariates in the analysis, which were not controlled for in any of the subsequent studies (date, time of day), thereby raising potential robustness concerns of the results.

The three subsequent studies by Esmark and Noble (2018) manipulated employee–customer proximity through text-based scenarios among online panel participants using the same intended single-factor between-subjects design for physical proximity (close, far), with identical manipulation check items across all these studies (very distant/very close; very far away/very near; not close/very close by). However, while the manipulation checks seemed to be successful in each study, a critic might argue that the

¹ It should be noted, though, that the expressive product received expressiveness ratings significantly *below* the scale midpoint of 4 on the 7-point scale used, with a mean value of $M=2.65$, suggesting that

Footnote 1 (continued)

this product was evaluated as relatively *inexpressive* according to the details presented by Esmark and Noble (2018) on p. 493.

scenarios confounded physical proximity with the physical presence, because the distant condition may have created an impression of the complete absence of any employee: “As you continue looking for your item, you check and are still alone in the area” (Esmark and Noble 2018, p. 484). Therefore, considering that prior research has documented employee mere presence (vs. absence) to generally result in a set of positive consumer responses (Otterbring and Lu 2018; Söderlund 2016), one could argue that the presence of an employee, even when in customers’ immediate vicinity, should lead to more favorable responses than the complete absence of any employee. This alternative explanation cannot be ruled out in any of Esmark and Noble’s (2018) scenario-based studies, suggesting that the results in these three studies may not necessarily have occurred as a function of proximity and, consequently, should be interpreted with caution. Indeed, looking at the authors’ recommendations, they suggest that “employees could be present during opening hours in non-expressive product areas and this closeness will lead to positive outcomes” (Esmark and Noble 2018, p. 491), again indicating that they seem to confound physical proximity with employee mere presence.

Nevertheless, the authors interpreted their findings though their intended proximity perspective and concluded that physical proximity increased purchased intentions, with this effect being mediated by participants’ feelings of acceptance, such that participants in the close condition reported greater feelings of acceptance than participants in the other condition, which in turn increased their purchased intentions. Moreover, this relationship was moderated by participants’ anxiety in the purchase situation and their perceptions of expressiveness for the product described in the scenario, with proximity—or employee presence, depending on interpretation—having a stronger impact when participants were anxious (proximity was thought to reduce the negative impact of anxiety) and when expressiveness was rated as low (as expressiveness increased, higher levels of acceptance did not increase purchase intentions). Yet, it is unclear why their second study used the product described as expressive in the initial study (nail polish), despite that customers’ purchase intentions for this product were found to directionally *decrease* under conditions of proximity in Study 1. One possibility is that the authors attempted to demonstrate that their positive results on purchase intentions in Study 2 hold as long as a given customer *perceives* a product as less rather than more expressive, regardless of its more objective expressiveness status.

The findings from the third study replicated those of the second one, this time with participants listing a product they had recently purchased rather than the predetermined product of nail polish used in the former study and with a sample of both men and women rather than solely female participants, as in the previous two studies. Finally, in their fourth

study, Esmark and Noble (2018) added in-group importance (the extent to which participants’ identification with a group is important to their self-image) as an additional moderator and used an embarrassing product (personal lubricant) as the target product. According to their interpretation of the results, the link between physical proximity and feelings of acceptance was mitigated when participants were not concerned with being part of an in-group; however, when in-group importance was high, the close employee condition increased acceptance. Moreover, consistent with the former two studies, the positive relationship between acceptance and purchase intentions was replicated, and feelings of acceptance were again more influential when the product was perceived as less rather than more expressive.

Gillani et al. (2021) conducted a cross-sectional study among an online panel sample of British and Indian participants to examine whether their perceived physical, as well as social and psychological, proximity to marginalized workers or producers could predict engagement toward the fairtrade concept and self-reported purchase behavior of fairtrade products depending on a set of other variables. Naturally, this study measured rather than manipulated physical proximity, thereby excluding explicit claims of causality, and the items used to capture physical proximity were rather dissimilar to those used in related research. Moreover, one of the physical proximity items can be criticized for not dealing directly with the physical aspect of the construct (“I can see the plight of the poor producers/workers producing Fairtrade products”). Gillani et al. (2021) found that high levels of physical, social, and psychological proximity toward marginalized workers or producers were linked to higher fairtrade engagement, which in turn was positively linked to self-reported purchase behavior of fairtrade products. Moreover, participants’ empathetic concerns and their levels of hypocrisy moderated the links between the different proximity dimensions and fairtrade engagement, such that the proximity factors were generally more influential among participants with higher (vs. lower) empathetic concerns and lower (vs. higher) hypocrisy levels. Finally, participants’ nationality generated different responses on the proximity dimensions, with higher ratings on all proximity aspects among Indian participants compared to their British counterparts.

Negative proximity effects

Esmark Jones et al. (2020) conducted three studies linked to employee–customer proximity across both embarrassing (foot fungal cream and hemorrhoid cream) and non-embarrassing (toothpaste) products. Their focus was to test whether two distinct invasions of customers’ privacy (physical and visual) would result in negative responses in terms of perceptions of privacy control, anxiety, and satisfaction

levels, and whether one of these invasion types would generate as aversive responses as both types simultaneously. To shed light on these matters, the authors conducted a series of 2 (physical invasion: low, high) $\times$ 2 (visual invasion: low, high) between-subjects experiments, mainly or exclusively using online panel participants.² Their initial two studies of relevance for employee–customer proximity effects used foot fungal cream and toothpaste as the target product, with online participants exposed to text-based scenarios about a shopping situation. Depending on their assigned condition, the scenario either stated that an employee is watching participants or that no employee is watching participants, and that an employee is either standing very close to participants or that “no employee is physically close” (p. 342), again implying that the authors did not clearly isolate the effect of physical (and visual) invasion from the effect of employee mere presence (vs. absence), given that participants may have interpreted the low physical and visual invasion condition as the complete absence of any employee.

After having been exposed to one of the scenario versions, participants replied to manipulation checks for physical and visual invasion, respectively, and indicated the extent to which the scenario altered their perceptions of privacy control, anxiety, and satisfaction levels. Across studies, the manipulations worked as intended, although the potential confound of employee mere presence (vs. absence) is not clearly addressed by the authors. In terms of key findings, Esmark Jones et al. (2020) found that one invasion, whether physical or visual, was enough to significantly decrease participants’ perceived privacy control in all employee–customer proximity studies, with negative downstream effects on anxiety and satisfaction levels. Moreover, the combination of both physical and visual invasions did not result in more negative perceptions of privacy control compared to if the employee in the scenario only intruded one of these dimensions. Yet, it remains unknown whether the same pattern of results emerged for anxiety and satisfaction, which the authors did not report in any of their studies, despite a trend toward more negative responses on all these metrics across studies in the condition where both invasion dimensions had been violated (calling for a meta-analysis on the aggregated results).

In their final study on hemorrhoid cream, Esmark Jones et al. (2020) added perceived legitimacy of the employee’s behavior as a potential moderator for the previously documented results and used a more ecologically valid manipulation by relying on video-supported scenarios, with the videos featuring a male or a female employee of similar attractiveness and comparable physical characteristics in

each of the experimental conditions. Depending on condition, the employee in the video looked versus did not look at participants to manipulate visual invasion and was set at 30 cm (1 foot) or 4.6 m (15 feet) from the camera as a way of manipulating physical invasion. Note that these distances belong to two separate personal space zones, with the close distance representing the intimate zone and the more spacious distance representing the public zone (beyond 12 feet), characteristic of formal speeches and passersby (Hall 1966; McElroy et al. 1990). This study is important as it somewhat rules out the “mere presence”-confound discussed above and in all scenario-based studies by Esmark and Noble (2018). The findings from this more rigorously conducted study largely matched those obtained in the former studies by Esmark Jones et al. (2020). The only addition was that participants’ perceived legitimacy of the employee’s behavior acted as a moderator for the impact of privacy control on anxiety and satisfaction, respectively, such that privacy control was significantly associated with anxiety when legitimacy was low but not high and that privacy control was significantly associated with satisfaction when legitimacy was high but not low. Interestingly, and in sharp contrast to the recommendations made by Esmark and Noble (2018), the practical implications discussed by Esmark Jones et al. (2020) include “training employees to be respectful of personal and visual space” (p. 347) as invasions of customers’ privacy can decrease consumer well-being. Given that all products in Esmark Jones et al. (2020) can be conceptualized as relatively non-expressive (i.e., toothpaste, hemorrhoid cream, and foot fungal cream), these latter recommendations seem to contradict the earlier findings and implications discussed by Esmark and Noble (2018) who consistently found positive rather than negative consumer responses in non-expressive consumption contexts under conditions of employee–customer proximity. It is unclear what may have caused the same team of authors to obtain such divergent findings.

Otterbring et al. (2021d) conducted four studies on employee–customer proximity and its impact on customers’ store loyalty, purchase intentions, and actual purchase behavior. Their initial study used a correlational design and aimed to test whether measured proximity (conceptualized as the extent to which the employee responsible for a customer’s primary in-store interaction made the customer uncomfortable) was associated with store loyalty in terms of stated likelihood of returning to and making a future purchase in a store. The study took place in a real retail setting, inside a high-end sporting goods store, which a separate sample of participants evaluated as expressive. The results revealed that customers who had more negative perceptions regarding the employee’s physical proximity reported significantly lower store loyalty levels, while also evaluating the store’s employees more negatively. Yet, it should be noted

² The sample type in the toothpaste study was not described by Esmark Jones et al. (2020).

that this study did not isolate the effect of physical proximity from that of psychological discomfort, given that most of the items used to measure customers' negative perceptions of physical proximity also included elements linked to aversive affective states (e.g., "The salesperson stood so close that I felt uncomfortable"). Combined with the correlational design precluding causal inferences, this limitation made the authors conduct a series of subsequent experimental studies in which proximity was manipulated rather than measured.

The second study by Otterbring et al. (2021d) was also performed in actual field settings, again in the expressive consumption context of a sporting goods store. This time, one of the authors acted as a confederate employee who asked customers to evaluate a spring jacket upon store entry. Depending on condition, the confederate either stood around 60 cm (2 feet) or 2.4 m (8 feet) away from the customers, thereby contrasting the personal space zone with the social zone. To ensure that the employee behaved consistent with the desired manipulation, an observer blind to the study hypotheses unobtrusively watched each employee–customer interaction and estimated the physical distance in 50-cm intervals, which served as an objective manipulation check. Moreover, as a complement to the observer's distance assessments, customers also replied to a Likert-scale item meant to measure their subjective proximity perceptions ("The salesperson stood very close when we talked"). This latter measure was used as a subjective manipulation check. Both manipulation checks worked as intended. Interestingly, although not reported by the authors, these two measures correlated strongly ($r = -0.5$, $p < 0.001$), indicating that customers' subjective proximity perceptions are sufficient to reliably capture objectively quantifiable differences in the physical distance between individuals.³ As the key variables of interest, Otterbring et al. (2020d) collected data on proximity-induced psychological discomfort and the amount of money spent in the store to examine whether the impact of employee–customer proximity on customers' purchase behavior would be mediated by psychological discomfort. Supporting this notion, customers in the close (vs. far) condition spend significantly less money in the store and reported significantly higher degrees of psychological discomfort, with discomfort mediating the proximity–spending link. Furthermore, the authors excluded customers'

attributions of persuasive intent as an alternative driver of their results. However, while the measures used to capture proximity-induced discomfort were found to be reliable, these measures lacked empirical validation from previous research. To reconcile this shortcoming and strengthening the practical relevance of their work, the authors proceeded with two additional studies.

Study 3 manipulated employee–customer proximity through text-based scenarios and, unlike the former study, used three different distances pertaining to distinct personal space zones: 30–60 cm (1–2 feet) and thus at the borderline between the intimate and personal space zone; 1.5–1.8 m (5–6 feet) falling within the social zone; and 4–4.3 m (13–14 feet) situated within the public zone. Online panel participants were randomly assigned to one of the experimental conditions using a single-factor between-subjects design (distance: close, medium, far) and subsequently replied to items measuring purchase intentions, psychological discomfort (this time using empirically validated measures), and—to further rule out alternative accounts—persuasion knowledge activation and the presence of ulterior motives. Finally, participants replied to a single-item manipulation check, which asked them to indicate how far away the employee described in the scenario was standing from them. The proximity manipulation worked as intended and the authors also found a significant linear trend between employee–customer proximity across both their key variables, such that participants responded with lower purchase intentions and higher psychological discomfort in the close condition compared to the medium and the far conditions, with the most positive outcomes surprisingly occurring in the largely overlooked public zone reflected by the far condition. Moreover, the impact of employee–customer proximity on purchase intentions was mediated by participants' psychological discomfort across both the close versus far and close versus medium comparisons, whereas such results did not consistently emerge for any of the alternative accounts, further strengthening the thesis that psychological discomfort is the main driver for the link between proximity and participants' purchase-related responses.

In their fourth study, Otterbring et al. (2021d) sought to test whether the activation of identity relevance could moderate the formerly demonstrated proximity effects on psychological discomfort and purchase responses, such that negative effects would only occur when participants think about products in terms of their ability to express their unique identities rather than only fulfilling functional purposes. Indeed, people often purchase products for reasons beyond functional features, given that certain goods can act as an extended self (Belk 1988; Berger and Heath 2007; Otterbring et al. 2018b). Using image-supported scenarios in a 2 (distance: close, far) $\times$ 2 (product prime: functional, identity relevant) between-subjects experiment on American

³ The negative sign can be explained by the scale format of the subjective proximity item ("The salesperson stood very close when we talked;" 1 = strongly disagree; 7 = strongly agree) and the coding of the observer's distance estimates (from close to farther way in 50 cm intervals). Five extreme values scoring more than 2.5 standard deviations away from the group-specific means on participants' subjective proximity assessments were excluded from this correlational analysis, but the nature and significance remain unchanged by including the entire sample.

students, participants were randomly assigned to one of the experimental conditions. Physical proximity was manipulated by an employee described and pictorially presented as standing either 30–60 cm (1–2 feet) or 2.1–2.4 m (7–8 feet) away from participants with the same manipulation check as in the former study (which again worked as intended), whereas the product prime manipulation asked participants to write about products they own in a way that either expressed who they are to others or emphasized the products' functional features. Participants subsequently replied to the same key measures as those used in the former study. The authors found consistent effects of employee–customer proximity on participants' purchase intentions and psychological discomfort in the identity relevant condition but not in the functional condition, such that they expressed lower purchase intentions and higher degrees of discomfort in the identity relevant close (vs. far) condition. Moreover, the previously demonstrated mediation of psychological discomfort was replicated in the identity relevant condition but not in the functional condition, again with persuasion knowledge and the presence of ulterior motives ruled out as competing conceptualizations accounting for these results. Crucially, the activation of identity relevance was found to moderate the interplay between proximity, discomfort, and purchase intentions.

Table 1 summarizes the above-mentioned articles on a series of key dimensions, such as sample sizes, sample types, country of investigation/sample nationality, key variables, and details on how proximity was conceptualized.

COVID-19 and physical proximity in sales and service settings

Blanchard et al. (2020) reflect on whether the COVID-19 pandemic may have changed individuals' tolerance for physical proximity to others in various consumption contexts. According to their conceptualization, there should be a large heterogeneity in customers' willingness to risk personal space invasions, which could certainly explain the inconsistencies in the consumption-related proximity literature. Blanchard et al. (2020) also note that customers' intolerance for proximate others during a pandemic constitutes as a new way for companies to offer reserved space in certain service settings (e.g., banks, spa resorts, and amusement parks), and hence charge higher prices for increased personal space.

Are there other ways the pandemic may have changed people's reactions to proximity and personal space violations, and which implications may such potential changes have in terms of their financial and well-being-related consequences? While still speculative, it is reasonable to assume that the steady stream of news centered on infections and death rates, mixed with lockdowns and strict

social distancing mandates, may have altered customers' cognitive, affective, and behavioral responses to physical proximity (Gómez-Corona et al. 2021; Rodrigues et al. 2021; Wang et al. 2020). Other than the obvious switch in consumer behavior from physical to online transactions and from cash to contactless payment methods (Karjalainen et al. 2002; Kleijnen et al. 2004; Otterbring and Bhatnagar 2021; Suoranta and Mattila 2004), and despite the affiliative aspects associated with physical proximity (Fay and Maner 2012; IJzerman and Semin 2010; Preciado et al. 2011), it is likely that customers now prefer a greater interpersonal distance in commercial settings. Additionally, nonverbal cues may play a more influential role in service encounters during and after pandemics, whereas verbal cues may be perceived in a more negative light. For example, rather than greeting customers upon arrival at a retail bank, a bank teller may now be well advised to acknowledge customers nonverbally through a smile, nod, or using eye contact, given the positive effects of such actions on customer satisfaction (Andersson et al. 2016; Otterbring 2017; Söderlund, and Rosengren 2008) coupled with customers' potential fear of infection from proximal verbal acts (i.e., others' open mouths) that may easily transmit viruses. Moreover, the multiple messages that ask customers not to touch products before knowing exactly what to buy—while meant to minimize the spread of infectious diseases—may paradoxically lead to compensatory responses that ultimately increase not only touching, but also purchasing (Brehm 1966; Clee and Wicklund 1980; Otterbring 2016), given that restricting customers' freedom to act in a certain way makes the restricted action more desirable, as postulated by reactance theory (Brehm and Brehm 2013; Otterbring and Rolschau 2021). Similarly, employees in sales and service settings may feel confined if mandated to wear face masks or glass shields to mitigate the risk of infection for themselves and their customers. Consequently, their behavior toward customers, and their associated advice, may change due to such feelings of confinement. Indeed, research has indicated that people become more variety-seeking under conditions of spatial confinement (Levav and Zhu 2009), suggesting that financial advisors may be more prone to favor riskier, more original investment strategies under such confined conditions. Finally, several studies have shown that people's compliance rates with social distancing regulations and other preventive health measures are contingent on their personality traits (Nowak et al. 2020; Otterbring et al. 2021c; Otterbring et al. 2021e; Pfattheicher et al. 2020; Zitek and Schlund 2020), indicating that their general attitudes toward physical proximity in sales settings may also be shaped by such dispositions and that perceptions of which interpersonal distance qualifies as an appropriate personal space may be differentially changed during pandemics depending on consumers' and employees' distinct personalities.

Table 1 Study characteristics, employee–customer proximity

Authors	Sample size(s)	Sample type(s)	Sample nationality	Key variable(s) except physical proximity	Proximity manipulation	Physical distances	Proximity measure(s)
Jacob and Guéguen (2012)	N = 478 (40% female)	Restaurant patrons	France	Tipping frequency Tipping amount	Yes, but without a manipulation check	15 cm vs. 45 cm vs. 75 cm	None
Esmark and Noble (2018)	N = 297 (74% female) S1: N = 76 (100% female)	S1: Female shoppers S2: Online panel	Not reported, but likely USA	Purchase intentions Self-reported feelings of acceptance	S1: Yes, but without a manipulation check S2–S4: Yes, but manipulation confounded proximity with presence	S1: 30 cm vs. 3 m S2–S4: No distances	S1: None S2–S4: very distant–very close; very far away–very near; not close–very close by (manipulation check)
Esmark Jones et al. (2020)	S2: N = 70 (100% female)	S3: Online panel	Not reported, but likely USA	Self-reported feelings of anxiety	S2–SA: Yes, but manipulation confounded proximity with presence	S2–SA: No distances	S2–SA: very distant–very close; very far away–very near; not close–very close (manipulation check)
	S3: N = 90 (51% female)	S4: Online panel		Manipulated (S1) or measured (S2–S4) product expressiveness (more vs. less)			
	S4: N = 61 (46% female)			Self-reported in-group importance (S4)			
	N = 490 (gender unknown)	S2: Online panel		Self-reported privacy control			
	S2: N = 128 (49% female)	S3: Online panel		Self-reported anxiety			
	S3: N = 237 (53% female)	SA: Unknown		Self-reported satisfaction			
	S_Appendix (SA): N = 125 (gender unknown)			Self-reported legitimacy (S3)			
				Manipulated visual invasion (high vs. low)

Table 1 (continued)

Authors	Sample size(s)	Sample type(s)	Sample nationality	Key variable(s) except physical proximity	Proximity manipulation	Physical distances	Proximity measure(s)
Gillani et al. (2021)	$N=323$ (50% female)	Online panel	UK, India	Self-reported engagement	No	No distances	Agreement with the statements, “I can see the plight of the poor producers/workers producing Fairtrade products;” “I often feel a physical connection between poor producers/workers producing Fairtrade products and myself;” “I consider myself physically close to the poor producers/workers producing Fairtrade products;” “I consider myself physically distant from the poor producers/workers producing Fairtrade products” [Reverse coded]
	$N_{\text{British female}}=211$ (54%)			Self-reported purchase behavior			
	$N_{\text{Indian female}}=112$ (42%)			Self-reported empathetic concern			
				Self-reported hypocrisy			
				Self-reported social and psychological proximity			

Table 1 (continued)

Authors	Sample size(s)	Sample type(s)	Sample nationality	Key variable(s) except physical proximity	Proximity manipulation	Physical distances	Proximity measure(s)
Osterbring et al. (2021d)	<i>N</i> = 1199 (51% female)	S1: Shoppers	S1–S2: Sweden	Purchase intentions	S1: No	S1: No distances	S1: Yes, but items confounded distance with discomfort
	S1: <i>N</i> = 183 (59% female)	S2: Shoppers	S3–S4: USA	Self-reported store loyalty	S2–S4: Yes	S2: 60 cm vs. 2.4 m	S2: Agreement with the statement, “The salesperson stood very close when we talked” (subjective manipulation check); observer’s distance estimates in 50 cm intervals (objective manipulation check)
	S2: <i>N</i> = 120 (57% female)	S3: Online panel		Self-reported psychological discomfort		S3: 30–60 cm vs. 1.5–1.8 m vs. 4–4.3 m	S3–S4: very close-very far (manipulation check)
	S3: <i>N</i> = 600 (53% female)	S4: Students		Money spent		S4: 30–60 cm vs. 2.1–2.4 m	
	S4: <i>N</i> = 296 (40% female)			Manipulated prime (identity relevance vs. functionality)			

Sample sizes correspond to the final samples reported in the articles, excluding pretests, pilot studies, and participants not included in the main analyses. Except for Gillani et al. (2021), sample nationality indicates in which country a given study was conducted, which is not necessarily identical to the nationality of all participants taking part in the study in that country. The article by Esmark Jones et al. (2020) included one additional study on customer–customer proximity (Study 1; *N* = 140 American students, 63% female), which was not included in the present review, given its focus on employee–customer proximity

Conclusion and directions for future research

As evident from the reviewed literature above, findings on employee–customer proximity are mixed, with some studies documenting positive effects of such proximity on customers’ responses (Esmark and Noble 2018; Gillani et al. 2021; Jacob and Guéguen 2012), while others have demonstrated the reverse (Esmark Jones et al. 2020; Otterbring et al. 2021d). Moreover, customers appear to make different purchase decisions depending on whether the proximity to an employee occurs in identity-relevant or functional consumption contexts (Otterbring et al. 2021d) and their purchase intentions may be differentially impacted by an employee standing close by or farther away as a function of whether the products to be purchased are perceived as more or less expressive (Esmark and Noble 2018). The pandemic has likely caused a shift in the extent to which customers—and employees—appreciate proximity, with perceptions of close interpersonal distances transforming from pleasure to pain. Thus, it seems advisable to provide customers with sufficient personal space, as offering too little may now be associated with a wide array of aversive aspects, despite former pre-pandemic recommendations of closer interpersonal distances (Esmark and Noble 2018; Jacob and Guéguen 2012). Yet, to verify such tentative conclusions, further empirical examinations are needed to explicitly test the “too close for comfort”-thesis and shed new light on proximity-related phenomena in the marketplace.

One fruitful avenue for future research in the consumption-related proxemics literature is to rely on more representative samples and favor fieldwork more than what is currently the case. Indeed, of the 13 studies reviewed herein, only four (31%) explicitly relied on “real” customers, whereas the remaining nine (69%) used online panel participants, university students, or did not specify such sample characteristics. Moreover, the vast majority of published research on employee–customer proximity is based exclusively on self-reported emotions, perceptions, attitudes, and intentions, with very few studies capturing real, observable behavior. Indeed, only two (15%) of the reviewed studies captured behavioral responses by means of customers’ tipping tendencies (Jacob and Guéguen 2012) and actual spending (Otterbring et al. 2021d; Study 2), while the other 13 studies (85%) were restricted to behavioral intentions or self-reported responses. Therefore, as stated by several scholars (Gidlöf et al. 2021; Gneezy 2017; Li et al. 2015; Machín et al. 2020; Otterbring 2021b; Otterbring et al. 2020b, 2021a; Pham 2013), there is a need to promote more behavioral studies from actual field settings on the downstream effects of physical proximity in terms of actual sales data and naturalistic consumer choice.

Another area for inquiry is to address the many inconsistencies in the proximity literature. Of the studies included in this review, seven empirical examinations from two distinct author teams demonstrated statistically significant *negative* effects of employee–customer proximity (Otterbring et al. 2021d; Esmark Jones et al. 2020), whereas six studies from three author teams showed statistically significant *positive* effects of such proximity (Esmark and Noble 2018; Gillani et al. 2021; Jacob and Guéguen 2012), clearly calling for more research to disentangle these discrepancies. Interestingly, by adding three quality criteria in the assessment of evidential value in the reviewed studies, a markedly different pattern emerges. Specifically, by focusing solely on studies with (1) experimental rather than correlational approaches, thus enabling causal inferences; (2) manipulations with manipulation checks but without crucial confounds; and (3) sample sizes that comply with the current rules of thumb of having at least 50 participants per cell in between-subjects experiments to ensure greater statistical power (Simmons et al. 2018), the only four studies that fulfill each of these quality criteria (i.e., Esmark Jones et al. 2020, Study 3; Otterbring et al. 2021d, Studies 2–4) unambiguously demonstrate the downsides of employee–customer proximity on a series of key customer outcomes, including real, observable behavior by means of actual spending. Nevertheless, research on employee–customer proximity may still be contextually sensitive (Eguren et al. 2021; Otterbring et al. 2021b; Van Bavel et al. 2016) and hence moderated by a set of situational factors. Therefore, future studies should try to reconcile the mixed findings described in this review.

Related streams of research on crowding have found several moderators that deserve more attention in the proxemics literature. A recent meta-analysis on perceived crowding (Blut and Iyer 2020; see also Mehta 2013), including more than 50 articles on both human and spatial crowding, revealed that these crowding sources have a different impact on customer satisfaction and other consumption responses, with human (spatial) crowding generally yielding positive (negative) effects.⁴ Additionally, such aspects of crowding were moderated by the consumption context, as being hedonic or utilitarian, but also by the extent to which employee support was offered, customers were new or existing, and whether the shopping setting was cooperative or competitive. Future work can test whether these variables, and presumably customers’ need for help, may moderate the impact of employee–customer proximity on customers’ financial decisions and

⁴ Human crowding is defined as perceptions of the number of individuals in an area and the interactions between people within this area, whereas spatial crowding only relates to perceptions based on physical features and space availability (Blut and Iyer 2020).

satisfaction levels. Such scholarly work should also test whether the downstream effects of employee–customer proximity are contingent on (a) the person initiating the proximity (employee vs. customer); (b) the circumstances explaining the proximity, as occurring voluntarily or being beyond an individual's personal control; and (c) the extent to which the individuals involved in the service encounter enjoy close interpersonal distances or prefer more spacious dyadic settings (Luangrath et al. 2020; Webb and Peck 2015; Xu et al. 2012).

While this review focuses on customers' responses as a function of the physical distance between themselves and an employee, few if any studies have investigated the impact of employee–customer proximity on employees' emotional, cognitive, and behavioral responses, despite that many employees may be enforced or trained by their managers to be in customers' immediate vicinity. Considering that employees may also feel uncomfortable and experience discomfort if they stand closer to customers than what their own preferences postulate and keeping in mind that prescribed proximity may evoke dissatisfaction, with the negative results for both employees and customers (Brown and Peterson 1994; Chi and Gursay 2009; Otterbring et al. 2018a, 2020a; Schlesinger and Zornitsky 1991), future studies should examine how employees respond to close interpersonal distances. Such studies are particularly important from a pandemic perspective, as recent research has documented employees in “low work from home”-jobs and “high physical proximity”-occupations (i.e., several occupations in the retail, service, and sales sectors) to be more vulnerable across a wide variety of measures, including health status, financial assets, and employment rates during the pandemic (e.g., Avdiu and Nayyar 2020; Mongey et al. 2021).

Finally, it is worth noting that the data from the articles in this review were collected in different countries and cultural contexts. According to Hall (1966), cultures vary in how much personal space is valued, with lower importance put on large interpersonal distances in contact cultures, such as East Asia, Latin America, and Southern Europe, but higher importance of such spacious distances in non-contact cultures, such as Northern Europe and North America (Ozdemir 2008; Sorokowska et al. 2017; Sussman and Rosenfeld 1982). Therefore, future research should examine whether intrusions of customers' personal space may be culturally contingent, and whether cultural differences may explain why some proximity studies have documented positive effects, while others have revealed opposite outcomes.

In closing, it is the hope that this article will spur a lot of new interest into the phenomena of physical proximity and personal space, so that the spatial aspects of shopping and financial decision-making can be better understood in theory, and better used in practice.

Declarations

Conflict of interest The author has no conflict of interest to disclose.

References

- Albert, S., & Dabbs, J. M., Jr. (1970). Physical distance and persuasion. *Journal of Personality and Social Psychology*, 15(3), 265–270.
- Andersson, P., E. Wästlund, and P. Kristensson. 2016. The effect of gaze on consumers' encounter evaluation. *International Journal of Retail & Distribution Management* 44(4): 372–396.
- Argo, J.J., D.W. Dahl, and R.V. Manchanda. 2005. The influence of a mere social presence in a retail context. *Journal of Consumer Research* 32(2): 207–212.
- Avdiu, B., and G. Nayyar. 2020. When face-to-face interactions become an occupational hazard: Jobs in the time of COVID-19. *Economics Letters* 197: 109648.
- Back, M.D., S.C. Schmukle, and B. Egloff. 2008. Becoming friends by chance. *Psychological Science* 19(5): 439–440.
- Belk, R.W. 1988. Possessions and the extended self. *Journal of Consumer Research* 15(2): 139–168.
- Berger, J., and C. Heath. 2007. Where consumers diverge from others: Identity signaling and product domains. *Journal of Consumer Research* 34(2): 121–134.
- Blanchard, S.J., T.L. Dyachenko, and K.L. Kettle. 2020. Locational choices: Modeling consumer preferences for proximity to others in reserved seating venues. *Journal of Marketing Research* 57(5): 878–899.
- Blut, M., and G.R. Iyer. 2020. Consequences of perceived crowding: A meta-analytical perspective. *Journal of Retailing* 96(3): 362–382.
- Brehm, J.W. 1966. *A theory of psychological reactance*. Academic Press.
- Brehm, S.S., and J.W. Brehm. 2013. *Psychological reactance: A theory of freedom and control*. Academic Press.
- Brown, S.P., and R.A. Peterson. 1994. The effect of effort on sales performance and job satisfaction. *Journal of Marketing* 58(2): 70–80.
- Chi, C.G., and D. Gursay. 2009. Employee satisfaction, customer satisfaction, and financial performance: An empirical examination. *International Journal of Hospitality Management* 28(2): 245–253.
- Clee, M.A., and R.A. Wicklund. 1980. Consumer behavior and psychological reactance. *Journal of Consumer Research* 6(4): 389–405.
- Eguren, J., L. Antúnez, T. Otterbring, M.R. Curutchet, and G. Ares. 2021. Health gains through loss frames: Testing the effectiveness of message framing on citizens' use of nutritional warnings. *Appetite* 166: 105469.
- Ernest, R.C., and R.E. Cooper. 1974. “Hey mister, do you have any change?”: Two real world studies of proxemic effects on compliance with a mundane request. *Personality and Social Psychology Bulletin* 1(1): 58–59.
- Esmark, C.L., and S.M. Noble. 2018. Retail space invaders: When employees' invasion of customer space increases purchase intentions. *Journal of the Academy of Marketing Science* 46(3): 477–496.
- Esmark Jones, C.L., J.L. Stevens, S.M. Noble, and M.J. Breazeale. 2020. Panic attack: How illegitimate invasions of privacy cause consumer anxiety and dissatisfaction. *Journal of Public Policy & Marketing* 39(3): 334–352.
- Fay, A.J., and J.K. Maner. 2012. Warmth, spatial proximity, and social attachment: The embodied perception of a social metaphor. *Journal of Experimental Social Psychology* 48(6): 1369–1372.
- Gidlöf, K., E.S. Lahm, A. Wallin, and T. Otterbring. 2021. Eco depletion: The impact of hunger on prosociality by means of

- environmentally friendly attitudes and behavior. *Journal of Retailing and Consumer Services* 62: 102654.
- Gillani, A., S. Koutala, L.C. Leonidou, and P. Christodoulides. 2021. The impact of proximity on consumer fair trade engagement and purchasing behavior: The moderating role of empathic concern and hypocrisy. *Journal of Business Ethics* 169(3): 557–577.
- Gneezy, A. 2017. Field experimentation in marketing research. *Journal of Marketing Research* 54(1): 140–143.
- Gómez-Corona, C., V.R. Rakotosamimanana, M.P. Sáenz-Navajas, H. Rodrigues, E. Franco-Luesma, E. Saldaña, and D. Valentin. 2021. To fear the unknown: Covid-19 confinement, fear, and food choice. *Food Quality and Preference* 92: 104251.
- Hall, E.T. 1966. *The hidden dimension*. New York, NY: Doubleday.
- IJzerman, H., and G.R. Semin. 2009. The thermometer of social relations: Mapping social proximity on temperature. *Psychological Science* 20(10): 1214–1220.
- IJzerman, H., and G.R. Semin. 2010. Temperature perceptions as a ground for social proximity. *Journal of Experimental Social Psychology* 46(6): 867–873.
- Jacob, C., and N. Guéguen. 2012. The effect of physical distance between patrons and servers on tipping. *Journal of Hospitality & Tourism Research* 36(1): 25–31.
- Karjaluoto, H., M. Mattila, and T. Pento. 2002. Electronic banking in Finland: Consumer beliefs and reactions to a new delivery channel. *Journal of Financial Services Marketing* 6(4): 346–361.
- Kleijnen, M., M. Wetzels, and K. De Ruyter. 2004. Consumer acceptance of wireless finance. *Journal of Financial Services Marketing* 8(3): 206–217.
- Levav, J., and R. Zhu. 2009. Seeking freedom through variety. *Journal of Consumer Research* 36(4): 600–610.
- Li, J.Q., P. Rusmevichientong, D. Simester, J.N. Tsitsiklis, and S.I. Zoumpoulis. 2015. The value of field experiments. *Management Science* 61(7): 1722–1740.
- Luangrath, A.W., J. Peck, and A. Gustafsson. 2020. Should I touch the customer? Rethinking interpersonal touch effects from the perspective of the touch initiator. *Journal of Consumer Research* 47(4): 588–607.
- Luck, M., and M. Benkenstein. 2015. Consumers between supermarket shelves: The influence of inter-personal distance on consumer behavior. *Journal of Retailing and Consumer Services* 26: 104–114.
- Machín, L., M.R. Curutchet, V. Gugliucci, A. Vitola, T. Otterbring, M. de Alcantara, and G. Ares. 2020. The habitual nature of food purchases at the supermarket: Implications for policy making. *Appetite* 155: 104844.
- McElroy, J.C., P.C. Morrow, and S. Eroglu. 1990. The atmospherics of personal selling. *Journal of Personal Selling & Sales Management* 10(4): 31–41.
- Mehta, R. 2013. Understanding perceived retail crowding: A critical review and research agenda. *Journal of Retailing and Consumer Services* 20(6): 642–649.
- Mencl, J., and D.R. May. 2009. The effects of proximity and empathy on ethical decision-making: An exploratory investigation. *Journal of Business Ethics* 85(2): 201–226.
- Mongey, S., L. Pilossoph, and A. Weinberg. 2021. Which workers bear the burden of social distancing? *The Journal of Economic Inequality* 19: 1–18.
- Nowak, B., P. Brzóska, J. Piotrowski, C. Sedikides, M. Żemojtel-Piotrowska, and P.K. Jonason. 2020. Adaptive and maladaptive behavior during the COVID-19 pandemic: The roles of dark triad traits, collective narcissism, and health beliefs. *Personality and Individual Differences* 167: 110232.
- Otterbring, T. 2016. Touch forbidden, consumption allowed: Counter-intuitive effects of touch restrictions on customers' purchase behavior. *Food Quality and Preference* 50: 1–6.
- Otterbring, T. 2017. Smile for a while: The effect of employee-displayed smiling on customer affect and satisfaction. *Journal of Service Management* 28(2): 284–304.
- Otterbring, T. 2021a. Evolutionary psychology in marketing: Deep, debated, but fancier with fieldwork. *Psychology & Marketing* 38(2): 229–238.
- Otterbring, T. 2021b. Peer presence promotes popular choices: A “Spicy” field study on social influence and brand choice. *Journal of Retailing and Consumer Services* 61: 102594.
- Otterbring, T., Bhatnagar, R. (2021). Touch, threats, and transactions: Pandemic influences on consumer responses and the mediating role of touch likelihood when shopping for fruits and vegetables. *Food Quality and Preference*, 104461
- Otterbring, T., and C. Lu. 2018. Clothes, condoms, and customer satisfaction: The effect of employee mere presence on customer satisfaction depends on the shopping situation. *Psychology & Marketing* 35(6): 454–462.
- Otterbring, T., and K. Rolschau. 2021. Beauty is in the eye of the beer holder but rarely because of the beer. *Personality and Individual Differences* 179: 110921.
- Otterbring, T., J. Pareigis, E. Wästlund, A. Makrygiannis, and A. Lindström. 2018a. The relationship between office type and job satisfaction: Testing a multiple mediation model through ease of interaction and well-being. *Scandinavian Journal of Work, Environment & Health* 44(3): 330–334.
- Otterbring, T., C. Ringler, N.J. Sirianni, and A. Gustafsson. 2018b. The Abercrombie & Fitch effect: The impact of physical dominance on male customers' status-signaling consumption. *Journal of Marketing Research* 55(1): 69–79.
- Otterbring, T., Danielsson, C. B., Pareigis, J. 2020a. Office types and workers' cognitive vs affective evaluations from a noise perspective. *Journal of Managerial Psychology* 36(4): 415–431.
- Otterbring, T., J. Sundie, Y.J. Li, and S. Hill. 2020b. Evolutionary psychological consumer research: Bold, bright, but better with behavior. *Journal of Business Research* 120: 473–484.
- Otterbring, T., R. Bhatnagar, P. Samuelsson, and S. Borau. 2021a. Positive gender congruency effects on shopper responses: Field evidence from a gender egalitarian culture. *Journal of Retailing and Consumer Services* 63: 102738.
- Otterbring, T., A. Festila, and M. Folwarczny. 2021b. Replication and extension of framing effects to compliance with health behaviors during pandemics. *Safety Science* 134: 105065.
- Otterbring, T., A. Festila, and M. Folwarczny. 2021c. Self-isolation for the self-centered: Negative framing increases narcissists' willingness to self-isolate during COVID-19 through higher response efficacy. *Personality and Individual Differences* 174: 110688.
- Otterbring, T., F. Wu, and P. Kristensson. 2021d. Too close for comfort? The impact of salesperson-customer proximity on consumers' purchase behavior. *Psychology & Marketing* 38(9): 1576–1590.
- Otterbring, T., Festila, A., & Folwarczny, M. (2021). Selfless or Selfish? The Impact of Message Framing and Egoistic Motivation on Narcissists' Compliance with Preventive Health Behaviors during COVID-19. *Current Research in Ecological and Social Psychology*, 100023
- Ozdemir, A. 2008. Shopping malls: Measuring interpersonal distance under changing conditions and across cultures. *Field Methods* 20(3): 226–248.
- Patterson, M.L., and L.B. Sechrest. 1970. Interpersonal distance and impression formation. *Journal of Personality* 38(2): 161–166.
- Patterson, M.L., C.E. Kelly, B.A. Kondracki, and L.J. Wulf. 1979. Effects of seating arrangement on small-group behavior. *Social Psychology Quarterly* 42: 180–185.
- Pfattheicher, S., L. Nockur, R. Böhm, C. Sassenrath, and M.B. Petersen. 2020. The emotional path to action: Empathy promotes

- physical distancing during the COVID-19 pandemic. *Psychological Science* 31: 1363.
- Pham, M.T. 2013. The seven sins of consumer psychology. *Journal of Consumer Psychology* 23(4): 411–423.
- Preciado, P., T. Snijders, W.J. Burk, H. Stattin, and M. Kerr. 2011. Does proximity matter? Distance dependence of adolescent friendships. *Social Networks* 34(1): 18–31.
- Priest, R.F., and J. Sawyer. 1967. Proximity and peership: Bases of balance in interpersonal attraction. *American Journal of Sociology* 72(6): 633–649.
- Rodrigues, H., D. Valentin, E. Franco-Luesma, V.R. Rakotosamimanana, C. Gomez-Corona, E. Saldana-Villa, and M.P. Sáenz-Navajas. 2021. How has COVID-19, lockdown and social distancing changed alcohol drinking patterns? A cross-cultural perspective between britons and spaniards. *Food Quality and Preference* 95: 104344.
- Schlesinger, L.A., and J. Zornitsky. 1991. Job satisfaction, service capability, and customer satisfaction: An examination of linkages and management implications. *Human Resource Planning* 14(2): 141–149.
- Simmons, J.P., L.D. Nelson, and U. Simonsohn. 2018. False-positive citations. *Perspectives on Psychological Science* 13(2): 255–259.
- Smith, T.S., and B.D. Seymour. 2014. *Bulletproof salesman: A lively guide to enhance your sales techniques*. Toronto, ON: Productive Publications.
- Söderlund, M. 2016. Employee mere presence and its impact on customer satisfaction. *Psychology & Marketing* 33(6): 449–464.
- Söderlund, M., and S. Rosengren. 2008. Revisiting the smiling service worker and customer satisfaction. *International Journal of Service Industry Management* 19(5): 552–574.
- Sorokowska, A., P. Sorokowski, P. Hilpert, K. Cantarero, T. Frackowiak, K. Ahmadi, A.M. Alghraibeh, R. Aryeetey, A. Bertoni, K. Bettache, and S. Blumen. 2017. Preferred interpersonal distances: A global comparison. *Journal of Cross-Cultural Psychology* 48(4): 577–592.
- Suoranta, M., and M. Mattila. 2004. Mobile banking and consumer behaviour: New insights into the diffusion pattern. *Journal of Financial Services Marketing* 8(4): 354–366.
- Sussman, N.M., and H.M. Rosenfeld. 1982. Influence of culture, language, and sex on conversational distance. *Journal of Personality and Social Psychology* 42(1): 66–74.
- Van Bavel, J.J., P. Mende-Siedlecki, W.J. Brady, and D.A. Reinero. 2016. Contextual sensitivity in scientific reproducibility. *Proceedings of the National Academy of Sciences* 113(23): 6454–6459.
- Wang, C., R. Pan, X. Wan, Y. Tan, L. Xu, R.S. McIntyre, F.N. Choo, B. Tran, R. Ho, V.K. Sharma, and C. Ho. 2020. A longitudinal study on the mental health of general population during the COVID-19 epidemic in China. *Brain, Behavior, and Immunity* 87: 40–48.
- Webb, A., and J. Peck. 2015. Individual differences in interpersonal touch: On the development, validation, and use of the “comfort with interpersonal touch” (CIT) scale. *Journal of Consumer Psychology* 25(1): 60–77.
- Xu, J., H. Shen, and R.S. Wyer. 2012. Does the distance between us matter? Influences of physical proximity to others on consumer choice. *Journal of Consumer Psychology* 22(3): 418–423.
- Jia, Y., Y. Huang, R.S. Wyer Jr., and H. Shen. 2017. Physical proximity increases persuasive effectiveness through visual imagery. *Journal of Consumer Psychology* 27(4): 435–447.
- Zitek, E.M., and R.J. Schlund. 2020. Psychological entitlement predicts noncompliance with the health guidelines of the COVID-19 pandemic. *Personality and Individual Differences* 171: 110491.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Tobias Otterbring PhD Psychology, is Professor of Marketing at the University of Agder, Norway. His research focuses on how the real or implied presence of other individuals influences people's cognitions, emotions, and behaviors. Otterbring serves or has served as a Guest Editor in several journals, including *Personality and Individual Differences*, *European Journal of Marketing*, *Journal of Business Research*, and *Psychology & Marketing*. His work has appeared in top-tier publications such as *Journal of Experimental Psychology: Applied*, *Journal of Marketing Research*, *Harvard Business Review*, and *Journal of Experimental Social Psychology*.