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THEORY/CONCEPTUAL

The role of identity in digital consumer behavior: A conceptual model and research propositions based on gender

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Abstract
Nowadays consumers can express their identities not only through their possessions and buying behavior, but also using social media and digital networks. This article aims to understand these digital consumer behaviors by focusing on identity strength and the identity signaling phenomenon. We develop a conceptual model that combines internal and external factors to explain the intensity and content of digital identity-related behaviors. We use the example of gender identity to build our research propositions, as gender is one of the most frequently and intensely debated identities in online consumer discussions. Further, we propose how digital and offline identity signaling behaviors are intertwined, and discuss the online behaviors of trans consumers. In doing so, our conceptual work highlights the unique features of digital identity signaling behaviors as well as the complexity of identities, including gender, and provides useful insights for researchers and marketers.

Keywords Digital consumer behavior · Identity · Gender identity · Identity signaling · Gender role beliefs

Introduction

Digital platforms and social media provided many new ways for companies to interact with their customers, revolutionizing marketing (Lamberton & Stephen, 2016). Consumers actively engage in the use of digital networks, spreading online word of mouth or even posting brand selfies on their social media (Hartmann et al., 2021; Stephen, 2016). One reason why they do it is to signal their consumer identities (Grewal et al., 2019).

Identity research in marketing and consumer behavior started to evolve in the 1970s, gaining more popularity in the 2000s (Reed et al., 2012). Over these years, the phenomenon of identity signaling has become a relatively established research area, which still requires more studies on antecedents and consequences of consumer identity signaling, as well as its unexplored forms (Gal, 2015). Most of the research in this field is focused on offline consumer identity signaling, or acquiring possessions that can signal one's identity (Gal, 2015). Digital identity signaling through digital possessions and online engagement with brands and other consumers is becoming more and more prevalent as well, but many of its facets stay uninvestigated (Belk, 2013; Bernritter et al., 2022; Grewal et al., 2019).

We develop a conceptual model, and several research propositions, to discuss the influence of both consumers' internal identity-related characteristics and external factors that they face in the online environment on their digital identity signaling behaviors. We further explain how online and offline identity signaling are intertwined with each other. We choose one identity to elaborate on our model—gender identity. The reasons for this are twofold.

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Firstly, brands recently started to actively participate in the conversation about gender and engage consumers in it as well. Examples include brands like Gillette, which launched a campaign criticizing men's aggressive behaviors, which received different reactions and helped initiate consumer debates on social media (Bogen et al., 2021). Interestingly, such examples show that despite general changes in gender societal roles and stereotypes (Eagly et al., 2020), there is still online backlash when traditional gender norms are questioned. Banet-Weiser (2018) argues that digital networks have paved a new era of gender wars characterized by the increased visibility of feminism and misogyny at the same time. Therefore, we find it important to understand why consumers engage in gender-related digital behaviors, and which role their gender identities play in these behaviors.

Further, gender is a broad identity that is often salient to consumers (Oyserman, 2009). Individuals develop a perception of their gender in early childhood, which can further evolve during their lives (Tobin et al., 2010), which arguably makes gender a substantial part of one's overall self-concept. Gender identity has been studied extensively over decades, and researchers developed several approaches to defining it. The two main approaches to gender identity in psychology are (1) based on masculine/feminine personality traits, and (2) based on self-categorization (one's self-categorized gender along with its importance) (Wood & Eagly, 2015). Some researchers in consumer behavior and psychology also argue that gender is a multifaceted identity that consists of self-categorized gender, gendered personality traits, and gender role attitudes (Palan, 2001; Spence, 1993). In addition to that, some individuals may not identify with their sex assigned at birth and define themselves as trans, genderqueer etc. (Keener, 2015). Thus, both the pervasiveness and the complexity of gender identity make it a unique concept to study, and combined with the relevance of gender-related consumer discussions online, we chose it as a context for building our conceptual model and research propositions. Nevertheless, gender has a lot in common with other identities as well, thus most of our research propositions explaining digital gender identity signaling apply to any identity and its signaling. Some propositions are more unique for gender, which underlies its complex nature.

The rest of the article is organized as follows. We first discuss the literature on digital identity signaling consumer behaviors and propose a categorization of main digital identity signaling types. We then review the approaches to identity and gender identity in psychology and consumer research. After that, we introduce our conceptual model of (gender) identity in digital consumer behavior. Next, we discuss how behaviors of transgender and non-binary consumers can be viewed and understood through our conceptual model. Finally, we articulate the theoretical and managerial implications of our work, as well as its limitations, and provide several directions for future research.

Digital identity signaling behaviors

Consumption and our lives in general have gradually shifted to digital spaces over the years, which, in turn, has increased the variety and diversity of online interactions available to consumers. In their literature review, Gershoff and Mukherjee (2015) sum up the main reasons why consumers engage in online social interaction: sharing information with others, belonging to particular social groups, influencing other people, expressing own creativity, self-entertainment, and, finally, managing one's own identity, which is relevant to our work. Nadkarni and Hoffman (2012) conclude that the use of social media (Facebook) is motivated by users' need to belong and need for self-presentation. We further discuss the literature on identity presentation online, to develop our conceptual model in relation to gender identity.

Digital content generation (e.g., creating social media posts) is one of the major and novel forms of identity signaling that has not been explored by consumer researchers in depth (Gal, 2015). In a way, online identity signaling is similar to the most prevalent and well-explored form of offline identity signaling—consumption of identity-relevant products (e.g., Berger & Heath, 2007). Acquiring identity-related products and brands may be a means for consumers to signal their belonging to a desired group (Escalas & Bettman, 2005). At the same time, consumers tend to avoid products and brands that can signal belonging to an undesirable group (White & Dahl, 2006). Similarly, digital behaviors such as posting on social media signal consumer identity (Grewal et al., 2019; Jensen Schau & Gilly, 2003). Both these forms help to communicate information about a consumer to the self and others (Gal, 2015). However, there are also some distinguishing features of digital identity signaling.

Firstly, consumers are able to express not only their actual selves but also build ideal selves that might be unattainable in real life (Grewal & Stephen, 2019). Nevertheless, some research shows that people prefer to either express their actual selves on social media (Back et al., 2010), or blend their actual and ideal selves when they use brand-related content to express their identity (Hollenbeck & Kaikati, 2012). This could happen due to the fact that on social media, the audience of consumers' posts might consist of friends and relatives who know their actual selves.

Moreover, while being online, individuals are prone to the online disinhibition effect, i.e., a tendency to express one's identity more openly, either in a benign or a toxic way (Suler, 2004). This effect is conditioned by several factors

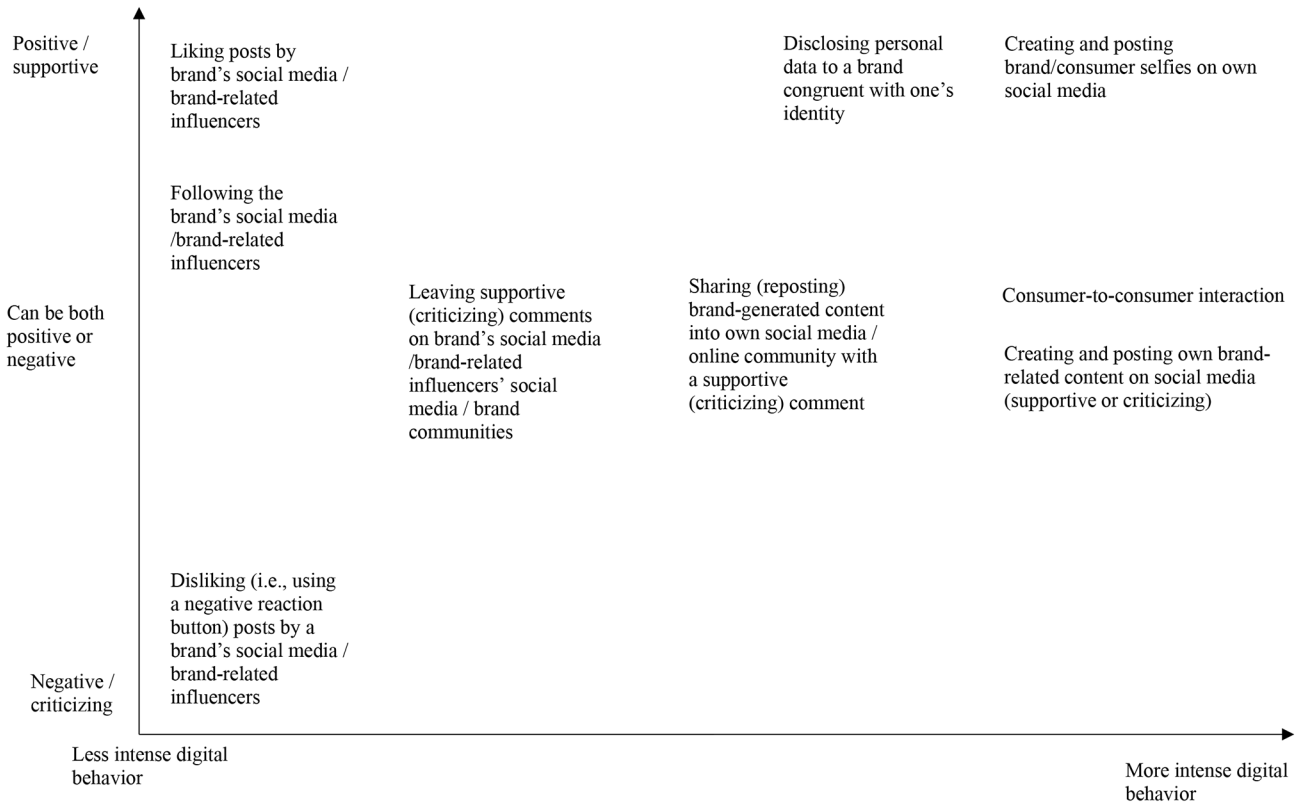

Fig. 1 Continuum of consumers' identity signaling digital behaviors

such as perceived anonymity, asynchronicity, or minimization of authority, among others. Although online outlets provide different degrees of anonymity to their users, consumers can still express their identities online freely, as the disinhibition effect is not dependent on anonymity per se. In addition, unlike the offline environment, the digital landscape provides an infinite number of outlets to express identity, and consumers can choose which outlets they can use for constructing new, ideal identities, and which to reinforce their actual selves (Grewal & Stephen, 2019).

Another important issue to consider is where and how exactly consumers signal their identities online. Roma and Aloini (2019) analyze user-generated content on social media and conclude that YouTube and Facebook are more prevalent for self-expression rather than Twitter. Hollenbeck and Kaikati (2012) sum up the main identity expression tools that consumers use on Facebook in relation to brands: e.g., liking brand pages, mentioning brands in profile interests, and posting photos of consumption. Grewal and Stephen (2019) further name several examples of such tools, not limited only to Facebook: creating posts, sharing photos through apps, joining identity-relevant communities, etc.

We thus conclude that digital outlets can differ on the level of suitability for identity expression. Similarly, we propose that particular online identity signaling actions might differ based on how well they can fulfill consumers' need for identity expression. Nevertheless, to date, researchers do not classify these actions. We assume that consumers' online identity signaling behaviors can be further put on a continuum of less intense actions to more intense ones. The intensity of these actions can be characterized by the level of effort consumers exert to make them, and, secondly, by their level of visibility to others. Visibility of these actions is important as visible online behaviors are better able to satisfy consumers' identity signaling needs, which even leads to decreased willingness to signal one's identity through the purchase of identity-relevant products (Grewal et al., 2019). In turn, the effort that consumers put into these behaviors could be related to an internal sense of their identities, i.e., how important a particular identity facet is to the consumer. We provide our classification of digital identity signaling behaviors in Fig. 1. Some of these behaviors (e.g., liking a brand's posts) reflect positive identity signaling behavior and support for an identity-relevant brand, whereas others (e.g., commenting on a brand's post) can reflect both the support of identity-congruent brands and criticism of identity-incongruent ones.

Taking the example of gender identity, consumers could signal their gender online by actively supporting or, on the

contrary, criticizing gendered brands on their social media, following gendered brands' social media pages and communities, sharing posts created by gendered brands and related influencers, etc. Consumers' reactions and discussions of gendered brands and/or their gender-related content are often very active and controversial. Bogen et al. (2021) analyze the case of the Gillette ad and find that although the campaign received many supporting comments about the brand as well as about the ad's message that questions traditional gender norms, other users initiated backlash, harshly criticizing Gillette for insulting their male customers and for accusing only men, not women, of aggressive behaviors. Similar situations occurred with other brands that tried to question gender norms, such as Always (Ilgaz, 2014). Overall, some users conform to gender stereotypes and use online platforms to signal it (e.g., men posting photos signaling masculine traits such as dominancy), whereas others use digital space to promote gender equality (e.g., women empowerment blogs) (Webb & Temple, 2016).

Despite the abundance of different ways to signal identity on social media and online networks, it is still not fully clear which consumers would decide to engage in intense identity signaling behaviors and which of them would avoid it. Is just being a member of a particular group (e.g., women) enough to have a high willingness to signal identity online? How do consumers decide about the content of the posts and comments that they decide to share, in order to express their identities? To answer these questions, we first look into the literature on identity in consumer behavior, and gender identity in particular, and then proceed with developing our conceptual model of identity-related digital behaviors.

What is (gender) identity?

Consumer psychologists define identity as "any category label to which a consumer self-associates either by choice or endowment" (Reed et al., 2012, p. 312). Broadly, identities can be separated into personal, i.e., not linked to a particular social group, such as being a rebel; and social, i.e., related to a social role or a social group an individual belongs to, such as being a woman or an American (Oyserman, 2009). One's overall self-concept consists of various identities of different types and associations (disassociations) between them, that together comprise a multiple-identity network (Forehand et al., 2021). Gender identity is one part of a consumer's self-concept (Wood & Eagly, 2015). Being a broad social identity, gender is often accessible to individuals psychologically (Oyserman, 2009). It can be conceptualized as one's self-identification as male, female, a combination of the two, or neither, based on the interpretation within a culture (Hines & Taylor, 2018; Wood & Eagly, 2009).

As already mentioned in the introduction, gender is a complex and unique identity due to the number of approaches psychologists and sociologists developed to study this concept. Wood and Eagly (2015) argue that there are two main approaches to gender identity in psychology—(a) based on personality traits associated with femininity/masculinity (communion/agency) (e.g., Evers & Sieverding, 2014), and (b) based on social identity and self-categorization, i.e., gender group identity, or one's strength or importance of identification with their gender group (e.g., Bosson & Michniewicz, 2013). We introduce the two approaches to gender identity in psychology and connect them with a broader identity classification.

Gender identity based on personality traits

Wood and Eagly (2015) define the personality traits approach as an older tradition, which started to gain popularity in the 1970s, when Bem (1974) and Spence et al. (1975) proposed that gender identity consists of two dimensions of gender-stereotypical personality traits—communal traits as a symbol of femininity, and agentic traits as a symbol of masculinity. Later, Bem (1981) also introduced Gender Schema Theory, according to which every person's gender identity can be described as masculine, feminine, androgynous (high on both masculinity and femininity dimensions) or undifferentiated (low on both masculinity and femininity dimensions). Spence (1993) further extended this approach by advocating for a more multifactorial view on gender identity, and thus combining gendered personality traits, gender role attitudes, and gender labels.

Gender identity based on self-categorization

Gender identity based on self-categorization can be defined as a "descriptive or prescriptive categorization of oneself as female or male, along with the importance of this categorization for one's self-definition" (Wood & Eagly, 2015, p. 464). Other gender identities exist as well—e.g., genderqueer (Keener, 2015).

To measure gender identity based on self-categorization, researchers often adapt more general identity measures to the gender context. For example, the identity dimension of the collective self-esteem evaluation developed by Luhtanen and Crocker (1992) to assess one's identification strength with social identity can be also applied to gender. This measure can also be used with trans individuals by asking what label a person prefers when describing their gender identity (such as female, male, transgender woman, transgender man, genderqueer, etc.) and then measuring the strength of that identity (McLemore, 2015).

Overall, the personality tradition to defining gender relates to personal identity and its gendered nature, whereas the self-categorization tradition is focused on individuals' self-labeling with a particular social group (women/men/genderqueer etc.) along with its strength, and the meaning of identity that individuals derive from that (Wood & Eagly, 2015). The two approaches are thus connected with the broader terms of personal identity and social identity. Both approaches to identity (and gender identity in particular) have been studied by consumer researchers in connection to identity-congruent behavior, and in the next section, we review this literature, which further guides us in building our model of digital identity signaling behaviors.

(Gender) identity in consumer behavior research

What motivates consumers to act in identity-congruent ways and signal their identity through consumption choices? Consumer psychologists outline one particular concept that increases the likelihood that a consumer's identity would affect their behaviors—identity salience, which refers to identity accessibility in a consumer's mind (Reed et al., 2012). Identity salience can be cued both situationally and chronically (Oyserman, 2009). Situational salience cues include, for instance, symbols related to in-group or out-group, whereas chronic salience is often influenced by identification strength, which reinforces the association between the self and a particular identity (Reed et al., 2012).

Interestingly, the influence of both personal and social identities can be affected by identity salience. Aaker (1999) shows that individuals who are chronically high on a particular personality dimension prefer brands that can express that dimension, but also using situational personality salience cues drives this effect. In relation to personality traits approach to gender, Grohmann (2009) shows the same effect: consumers who are chronically high in masculinity would prefer brands that they perceive as high in masculinity as well. In addition, chronic gendered personal identity affects agency-/communion-associated consumer behaviors such as gift-giving (Fischer & Arnold, 1990, 1994), financial risk-taking (Lemaster & Strough, 2014; Meier-Pesti & Penz, 2008), or ethical consumption (Pinna, 2020).

Social identities, including gender, can also become salient based on both situational and chronic cues and motivate consumers to act in identity-related ways. Maldonado et al. (2003) propose that consumers' strong gender identity amplifies the perception of gender salience in the ads that contain representations of gender and thus increase gender salience situationally, which, in turn, influences consumer evaluations of the ads and the advertised brands. They hypothesize that ads that activate gender identity result in more favorable evaluations than ads that do not, due to in-group bias and favorability.

More researchers in consumer behavior investigate in-group favorability and out-group derogation in relation to products and brands associated with a particular social identity, which indicates identity signaling through consumption. Here, we discuss those papers that primarily use gender to conceptualize social identity, thus sticking to the main exemplary identity of our work. For instance, White and Dahl (2006) find that men are inclined to avoid choosing a product associated with women. Similarly, Gal and Wilkie (2010) show that men are strongly motivated to make gender-congruent food choices, unlike women, for whom it seems not so important. This stream of research has also shown that men are especially likely to avoid products associated with women when their masculinity is threatened, when they have unconstrained time and attention resources, when their consumption occurs in the public context, and when they are high in public self-awareness (Brough et al., 2016; Gal & Wilkie, 2010; White & Dahl, 2006). These findings are in line with studies from psychology focused on the principle of precarious manhood, which states that for men it is more important than for women to achieve and hold the status of 'real man' (Vandello et al., 2008).

Connecting these findings to the identity salience principle and the approaches to gender identity, we conclude that many studies on gender as social identity conceptualize gender as a self-category (a man vs. a woman) and investigate its influence on evaluations of gender-related in-group and out-group associated products and brands, that can prime salience of gender identity situationally. However, few studies take into account gender identity strength, which can indicate chronic identity salience and is further an important component of the self-categorization approach to gender. In turn, the concept of identity strength can play an important role in research on identity signaling due to several reasons. Firstly, subtle situational identity salience cues often have an effect only on those consumers for whom a particular identity is important (Kettle, 2019). Applying this to the online environment, encountering a brand's or an influencer's post that situationally activates a particular identity can be not a strong enough stimulus to motivate a consumer to signal that relevant identity by commenting on the post or sharing it. On the other hand, when a consumer has a strong identity, they have not only high chronic salience of that identity, but also a higher willingness to always act consistently with that identity (Bolton & Reed, 2004; Grewal et al., 2019).

Therefore, in our conceptual work, we want to emphasize the importance of identity strength in explaining digital identity signaling behaviors. Related to gender, we thus focus on the self-categorization approach to gender identity

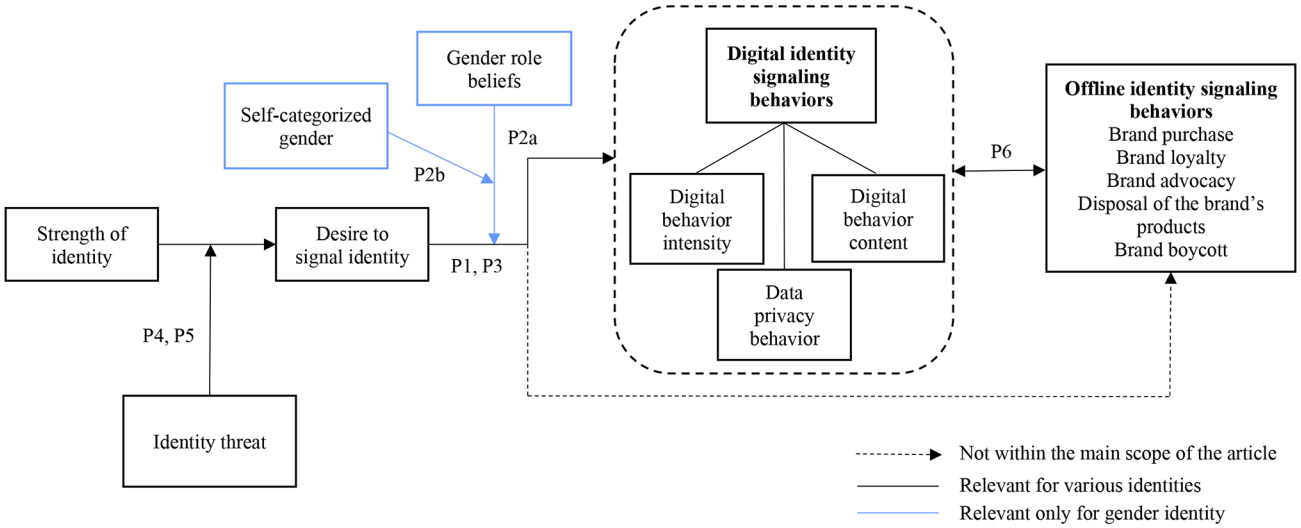

Fig. 2 A conceptual model of the role of (gender) identity in digital consumer behaviors

(rather than the personality traits approach) as it includes identity strength as well. Findings in consumer psychology on gender as social identity might indicate that for one group (in that case, men) it is more important than for others to act congruently with their identity and signal it to the self and the others, which one might want to transfer to the digital domain as well. While we do not argue that there are no differences at all between gender self-categories, we contend identity strength, and gender identity strength in particular, as a more suitable predictor of consumers' willingness for online identity signaling. We thus start developing our model by connecting the continuum of digital identity signaling behaviors with identity strength. We further discuss other internal identity-related concepts that can influence the content of identity signaling behaviors, as well as external factors, such as identity threats, that affect consumers' willingness to signal identities. Our conceptual model, for the most part, is relevant for various identities, although we illustrate our research propositions based on the example of gender identity.

Our conceptual framework and research propositions

In our literature outlook, we reviewed what we know so far about identity signaling behaviors offline and online and visualized the continuum of identity-related digital behaviors. Having reviewed approaches to identity in general and gender identity in particular, we rely on identity strength to explain consumers' motivation to engage in digital identity signaling.

Overall, individuals strongly identified with particular social groups engage in identity expression and differentiation, whereas those with weak group identities prefer the strategy of noninvolvement in group-related behaviors (Ellemers et al., 2002). In the consumer behavior context, those with strong identities reinforce a particular identity and what it means to them by choosing identity-relevant products (Reed et al., 2012) and tend to have a higher willingness to engage in online and offline identity signaling (Grewal et al., 2019). Similarly, consumers with strong gender identities have increased salience of their gender, independent of the contextual situation (Maldonado et al., 2003), which may lead them to act in identity-relevant ways and thus signal their gender.

Our conceptual model (Fig. 2) highlights six propositions, which when taken together, extend the study of identity and gender identity in digital consumer behavior and its connection to offline identity signaling. We provide a novel framework to understand the relationships between identity strength, desire to signal one's identity, digital content generation, offline consumer behavior, and the moderating roles of identity-related beliefs and identity threats. We develop the theoretical foundations for each of the six propositions in the following sections.

Digital behaviors as a way to signal identity

According to Gal (2015), digital content generation is a novel way of identity signaling, which has not been explored enough by consumer behavior researchers. We claim that identity strength influences digital behaviors and their intensity in particular. This relationship is explained through the desire to signal identity.

Identity research in psychology shows that identification strength plays an important role in the group-related behaviors of individuals (Branscombe et al., 1999; Ellemers et al., 2002). For instance, Ethier and Deaux (1994) show that students who are initially strong in ethnic identity tend to be more involved in cultural activities and be closer to their ethnic group when they start living in a new cultural environment, compared to those who are weak in ethnic identity. Thus, individuals with strong group identities tend to stick with their in-group and signal that belonging to the group with identity-related activities.

Similarly, we propose that strongly identified consumers would be more involved in identity-related digital behaviors. Our literature review shows that consumers often use social media websites to express their identities, and they prefer Facebook and YouTube (rather than Twitter) for this purpose (Nadkarni & Hofmann, 2012; Roma & Aloini, 2019). Yet little is known about what *kind* of digital behaviors consumers will choose to signal identity. Grewal et al. (2019) show that for strongly identified consumers, posting on social media about identity-relevant products is not sufficient to cover their identity signaling need, which further leads to a consequent purchase of the identity-related product. The authors further illustrate that public posting is a stronger signal of identity than private posting, as it helps to communicate one's identity not only to the self but also to others. We can thus conclude that consumers with stronger identities, including gender identities, are motivated to engage in more intense and visible signaling behaviors online. Consumers with weaker identities would either opt out of any kind of identity signaling digital behaviors or prefer less intense and less visible ways to signal their identities, depending on their identity strength.

We propose that this relationship is mediated by the desire to signal one's identity. The stronger one's identity, the higher the desire to signal that identity, which consequently leads to more intense and visible identity signaling behaviors. We propose that a desire to signal identity could be operationalized as a separate variable that could act as a motivator and an antecedent of behaviors. To date, there are no clear measures of this construct. Chan et al. (2012) introduced a measure for the desire to signal social identity to others, however, it does not include the other aspect of identity signaling—conveying information about identity to the self. Consistent with Gal's (2015) review which posits that identity signaling consists of two components, signaling identity to others and the self, we propose that the measure of the desire to signal identity should include both these aspects.

Therefore, we propose that:

P1 The stronger a consumer's identity, the higher their digital behavior intensity. This relationship is mediated by the consumer's desire to signal identity (signaling to others and the self).

Figure 1 in the previous section illustrates the continuum of digital identity signaling behaviors. This continuum can be applied to various identities, including gender, which we use as an exemplary identity in this article. We thus propose that consumers with stronger gender identities, driven by their desire to signal identity, will be highly engaged in several types of digital behavior, especially intense and visible behaviors. As an example, a strongly identified woman might not only follow a women-focused hygiene brand (less intense behavior), but also more actively endorse it online by reposting brand's posts on her own channels or making selfies with the brand and posting them on her own social media, possibly tagging the brand in the post to increase exposure (more intense behaviors). A set of various digital behaviors can help to better fulfill consumers' desire to signal their gender identities to themselves and others.

Interestingly, however, identities can have different meanings for each consumer, which is rarely looked into in consumer psychology research (Wooten & Rank-Christman, 2022). For instance, racial identity consists of both identity significance and the qualitative meaning assigned to race (Sellers et al., 1998). Similarly, self-categorizing as a woman or a man does not have a uniform meaning for each individual (Wood & Eagly, 2015). Thus, looking at identity strength alone, it is hard to predict which kind of content consumers will opt to post or share online regarding their identities, and which kind of brands they will support or criticize. In regard to gender, brands can address this identity in more stereotypical ways, i.e., emphasizing the importance of agency for men and communal traits for women, but they can also address gender non-stereotypically. Examples are Always, with its femvertising campaign "Like A Girl," which sought to shatter the stereotype that women are gentle, tender, and somehow inferior to men (Ilgaz, 2014), and Gillette, a typically masculine brand that decided to address the problem of toxic masculinity and show that men need not be aggressive (Green, 2019). In the next section, we, therefore, discuss identity-related beliefs, and gender role beliefs in particular, that can shed a light on the content of digital behaviors that consumers choose to share online.

The moderating roles of gender role beliefs and self-categorized gender

We first proposed that a strong identity increases consumers' desire to signal that identity, which results in specific behavioral responses online. However, we also suggest that

consumers have different meanings that they assign to their identities, and thus, this can affect *how* they signal their identities as consumers. In this section, we discuss how gender role beliefs can define the meaning of one's gender identity, and how they drive the content of consumers' gender identity signaling behaviors online. As the meaning of each identity can be defined by concepts that are unique for a particular identity, the propositions in this section are applicable exclusively to gender identity. Nevertheless, we acknowledge that other identities also have a specific range of meanings that consumers can ascribe to them. For instance, Wooten and Rank-Christman (2022) argue that racial regard and racial ideology determine the meaning of racial identity, which, in turn, influences consumer behaviors. These identity-related beliefs and attitudes can influence digital identity signaling behaviors of consumers as well.

Overall, one can assume that the stronger consumers identify with their social group, the more they are prone to self-stereotyping, and thus the more they want to engage in group-stereotypical identity signaling behaviors. Indeed, some research from self-categorization theory finds that individuals engage in gender self-stereotyping, i.e., in describing themselves in gender-stereotypical terms of masculinity and femininity, when their social group affiliation is salient to them (Hogg & Turner, 1987). However, other research indicates that the content or meaning of gender identity can also differ depending on gender role beliefs a person holds, i.e., their beliefs about appropriate behaviors and responsibilities of men and women. Whereas more traditional individuals believe that women should take care of children and men should earn money, more egalitarian individuals think that women and men should share childcare and financial responsibilities, as well as other typical male and female activities (Corrigall & Konrad, 2007). However, we view gender role beliefs not only in terms of the gendered division of labor, but rather a broader set of behaviors that are stereotypically related to either women or men (e.g., women should not swear or should always look beautiful to men). Becker and Wagner (2009) show that women can strongly identify with other women and at the same time be either more traditional or more egalitarian in their gender role preferences. Similarly, Van Breen et al. (2017) advocate for a multiple identity approach to gender in women, emphasizing that identification with women can predict attitudes towards self-ascribed femininity, whereas feminist identity is related to women's social position and attitudes towards sexism and gender equality. Men's strong gender identity leads to the process of gender dichotomization, a tendency to distance masculine traits from feminine (Bosson & Michniewicz, 2013), which might indicate that they would want to signal their gender in the marketplace in more traditionally masculine ways independent of their gender role beliefs. Nevertheless, Cameron and Lalonde (2001) find that men's strength of gender identity and their gender role beliefs are not dependent on one another (i.e., being a strongly identified man does not always mean that he also holds very traditional views on gender), and thus there is a possibility that gender role beliefs can also affect men's identity signaling behaviors, though not as strongly as women's. Therefore, we theorize that:

P2a Consumers with stronger gender identity have an increased desire to signal their gender identity, and their gender role beliefs moderate the relationship between the desire to signal identity and content of digital behaviors (i.e., how they signal their gender identity online).

P2b This moderation effect is more pronounced for those who self-categorize as women than those who self-categorize as men.

In the following, we discuss our propositions in more detail and explain how the moderation effect of gender role beliefs differs for women and men. In general, gender role beliefs have been already investigated in consumer behavior research to some extent: for example, Ulrich (2013) shows that more egalitarian consumers are more accepting of cross-gender brand extensions, independent of their self-categorized gender. However, our conceptual framework goes beyond that and proposes that gender role beliefs help to explain in which ways consumers with strong gender identities will fulfill their desire to signal their gender online. Becker and Wagner (2009) already established that women can internalize different norms about their gender, more egalitarian or more traditional, and that these beliefs would guide the direction of their thinking and behavior in regard to sexism and engagement in collective action. We thus expect that a similar situation will occur in the marketplace too: the strength of women's gender identity leads them to an increased desire to signal their gender affiliation, which results in more intense identity-related digital behaviors, and gender role beliefs guide in which way they do it. Thus, how they signal their gender will differ depending on their gender role beliefs. Women with strong gender identity and egalitarian gender role views may signal their identity by supporting brands that stand for gender equality and women empowerment, like Monki (a brand of the H&M group), actively endorsing them online on their social media, and showing their disagreement with brands supporting traditional women-related stereotypes. We thus suggest that they will also criticize brands that target their in-group more traditionally or stereotypically. In contrast, women with strong gender identity and traditional gender

role views might incorporate more stereotypical views of femininity and signal them in their digital consumer behaviors (e.g., endorse traditionally feminine brands such as Victoria's Secret) and post information and pictures of brands that express women's attractiveness and tenderness rather than agency, i.e., typical feminine traits. They will also be critical towards progressive women-targeting brands.

Is the same moderation effect of gender role beliefs valid for men? Spielmann et al. (2021) show that men with traditional gender role beliefs have a stronger connection to male brand representations than those with egalitarian beliefs. Moreover, according to Bosson and Michniewicz (2013), strongly identified men have the highest tendency to eschew femininity from their self-concept. Consequently, we suggest that men with strong gender identity and traditional gender role beliefs have an increased desire to signal traditional masculinity and agency in their digital behaviors. Furthermore, they can have especially negative attitudes towards brands that try to combat displays of toxic masculinity, which might explain why some men were furious when Gillette released their "We Believe" commercial that encourages men to change their aggressive behavior (Green, 2019). In this situation, they showed an online response of actively posting various negative comments about this particular campaign and further derogation to purchase the brand that is inconsistent with their gender. They are also more likely to show online hostility toward brands supporting women empowerment, as well as toward women customers who endorse those brands. Will the identity signaling behaviors of strongly identified men with egalitarian gender role views be drastically different? Given the results of precarious manhood studies that find that manhood always needs some social validation (e.g., Vandello et al., 2008), and that strongly identified men are especially invested in preserving their masculinity (Bosson & Michniewicz, 2013), we propose that independent of gender role beliefs, men with strong gender identity would prefer masculine brands and avoid those that are associated with women. However, holding more egalitarian views on gender can encourage strongly identified men to be more accepting of brands that try to change the traditional meaning of masculinity, such as Gillette or Dove, when they tried to connect masculinity with care rather than agency or power (Watson, 2019). This acceptance can manifest itself in men's digital behaviors as well. Thus, although for strongly identified men with egalitarian views on gender it is also important to feel like "real men," they could prefer to signal that by endorsing those brands that are subtly questioning hypermasculinity. Therefore, the moderation effect of gender role beliefs for strongly identified men also affects the relationship between their desire to signal identity and their consumer behavior, but it is less pronounced than for women.

We would like to point out that gender role beliefs, like identity strength and identity-related digital behaviors, exist on a continuum. To illustrate the differences, we use two extremes: egalitarian and traditional gender role beliefs. However, we propose that "something in between" is likely to exist as well. Furthermore, we do not advocate for any specific measure of gender role beliefs as the usefulness of such measures might strongly depend on the context of the planned study. For example, when exploring cis men's digital identity signaling behaviors, including strong criticism and hatred toward non-stereotypical gendered brands, one might use the Gender Role Conflict Scale (O'Neil et al., 1986) developed to assess how tightly a man follows a traditional gender male role, whereas this measure will not be applicable for women or mixed-gender consumer sample.

Identity and online privacy

Having discussed the links between identity and identity-related beliefs with intensity and content of digital behaviors, it is further important to emphasize the phenomenon of online privacy-related behaviors. A vast body of research explores why consumers are ready to share their data with firms, or, on the contrary, why they are hesitant to do so. Giving away one's data may be an indicator of trust in an organization or a brand (Martin & Murphy, 2017), and strong consumer-brand relationships increase consumers' perception of benefits when disclosing personal data to a brand (Hayes et al., 2021).

We, however, propose to look at consumers' willingness to disclose their personal data to the brands from an identity perspective, and identity strength in particular. We propose that strongly identified consumers may perceive more benefits than risks when communicating personal data to identity-congruent brands, and thus they may be willing to do so as an act of self-signaling. A strongly identified man consumer can opt to share personal data with a brand congruent with his gender role beliefs, to signal his identity to himself. Consequently, he can receive some identity-relevant benefits from a brand, such as personalized gender-congruent advertising or discounts for brand future purchases. Thus, although disclosing personal data to an identity-relevant brand might not help consumers to signal their identity to other consumers directly, its consequences can provide opportunities to signal identity more conspicuously, e.g., through sharing brand's advertising on own social media or purchasing brand's produce. On the contrary, a man with a weaker gender identity might not be motivated enough to engage in this kind of self-signaling and would perceive more risks rather than benefits when disclosing personal data to a gender-related brand. Therefore:

P3 The stronger a consumer's identity, the higher their willingness to disclose personal data to brands congruent with their identity-related beliefs. This relationship is mediated by the consumer's desire to signal identity (self-signaling).

The role of consumers' response to digital behaviors: Identity threats

The first three propositions depict how consumers are motivated internally, by their identity strength and identity-related beliefs, to signal their identities online. We further propose that there are also external factors that can affect one's identity signaling desire. When consumers post something online, they can encounter different kinds of reactions to the content that they shared from receivers of that information, be it a comment that is addressed to them individually, or a post by another person touching on the same topic. Some of these reactions can represent a threat to consumers' identity and affect their desire to further signal their identity in online and offline interactions.

Ellemers et al. (2002) broadly categorize two types of social identity threats—a self-directed threat, when a person is faced with the risk of being excluded as a member of a social group they identify with, and a group-directed threat, when the value or distinctiveness of a social group a person belongs to is undermined. Applied to the digital landscape and gender identity, a woman might face a self-directed gender identity threat online by receiving an anonymous comment on her social media commenting on her photo that her appearance is not feminine enough but rather "man-like." A man can experience a group-directed gender identity threat when reading a Facebook post that highlights and criticizes the aggressiveness of men, i.e., the moral value of this gender group is undermined. Facing these gender identity threats is especially likely in the digital context, as individuals express themselves online more openly due to the online disinhibition effect (Suler, 2004).

How do consumers react to these threats? Ellemers et al. (2002) propose that high group identifiers feel a strong need to be accepted in the desired group when they experience group rejection or exclusion. We thus expect that a self-directed threat to consumers' identity will increase their desire to signal their identity as a means to be accepted into a particular group, for individuals with strong identity. Consumers with weaker identities would not experience such a need when being treated as a not "good" enough member of their group. We thus propose that:

P4 Consumers with strong identity who face a self-directed identity threat have a stronger desire to signal their identity compared to those not facing such a threat.

Related to gender identity, some research in psychology indicates a difference between genders in terms of susceptibility to gender identity threats. Vandello et al. (2008) show that men are more susceptive to self-directed gender identity threats than women, i.e., when they are being classified not as "real men," to which they respond with increased attempts to be included in the group of men, sometimes even showing violence to achieve that goal. The strength of gender identity also plays a role here—the more a person identifies with their gender group, the more susceptive they will be to self-directed threats (Schmitt & Branscombe, 2001). However, Chrisler (2013) further argues that womanhood can also be threatened; women face social pressure to pursue beauty standards and become "good" mothers, and women who do not meet these requirements can feel socially punished and lose their status as "real" women.

In line with our proposition, a strongly identified woman with more traditional views on gender roles can perceive the comment on her social media that she is "man-like" and not feminine enough as a threat to her gender identity, which may increase her desire to signal and "prove" her gender affiliation by engaging in active support of stereotypical feminine brands in her social media channel or criticizing progressive brands that stand for body positivity.

How do consumers react to group-related identity threats that they experience online? Highly committed group members engage in group affirmation behaviors and can even get defensive when the moral values of a group are being questioned, whereas less committed individuals tend to distance themselves from the negative group identity (Branscombe et al., 1999; Ellemers et al., 2002). In the marketplace context, White and Argo (2009) show that when a consumer receives some negative information about their social group, they tend to dissociate themselves from that group by avoiding identity-congruent products and brands, but this effect is attenuated when a person is high in collective self-esteem (which includes the importance of group identification measure). Based on that, we conclude that consumers with stronger identities would experience a need to support their group when faced with such a threat, and thus further keep signaling their identity and identity-related beliefs online. Consumers with weaker identities would be more inclined to reduce their identity signaling to the minimum when experiencing a group-directed threat, as a means to distance themselves from their group and its negative image. Therefore,

P5a Consumers with strong identity who face a group-directed identity threat have a strong desire to signal their identity.

P5b Consumers with weak identity who face a group-directed identity threat have a weak desire to signal their identity.

Thus, applying our propositions to gender identity, when a man reads a post that undermines his gender group, depending on his gender identity strength, he could either engage in defensive gender behaviors and even anger towards the outgroup, or distance himself from other men. For example, when Always released their ad "Like a Girl", hashtag #LikeAGirl started trending on social media, at the same time causing backlash from some men users who disliked it and created their own hashtag #LikeABoy, which, in turn, was criticized as being absurd (Vagianos, 2015). In that case, men consumers could have potentially faced group-related identity threat twice: when #LikeAGirl started expanding on social media (thus somehow implying that women are better than men, in the point of view of some consumers), and when men users who promoted #LikeABoy received harsh criticism for being "part of the [stereotyping of women] problem." Men with weaker gender identities and especially egalitarian gender role beliefs could want to distance themselves from their gender group by criticizing their behaviors, whereas men with stronger gender identities would be more likely to keep signaling their gender and masculinity by further supporting the hashtag #LikeABoy or even engaging in consumer-to-consumer interaction online to derogate the outgroup, in that case, either women or a group of weaker identified men who criticized their behaviors.

The interplay of digital and offline identity signaling behaviors

To complete our conceptual model and propositions, we discuss interactions between identity and digital identity signaling behaviors, and offline identity signaling behaviors. The most prominent and researched form of offline identity-signaling is brand purchase. Gal (2015) and Grewal et al. (2019) already established a connection between digital identity signaling behavior and consequent purchase and found that posting about identity-relevant products decreases willingness to buy that product, as the identity signaling need is already satisfied. Nevertheless, it does not hold true for consumers with strong identities. We would like to further extend this already established relationship by looking at it in the opposite direction. We suggest that for consumers with stronger identities consumption of an identity-related product leads to more active identity signaling digital behaviors. For example, a woman consumer who strongly identifies with other women might be fond of an apparel brand standing for women's empowerment and producing clothing with related slogans. She might be motivated enough not only to buy this brand and wear its clothing (thus engaging in offline identity-signaling) but also to signal her gender identity online, by taking a selfie with her favorite brand and posting it on her social media, emphasizing her positive appeal towards the brand.

Gal (2015) points out that other, under-researched forms of offline identity signaling exist as well such as e.g., word of mouth communication. We suggest that similar to purchase behaviors, they are intertwined with digital identity signaling behaviors. Our conceptual framework (Fig. 2) depicts several offline identity signaling behaviors such as brand advocacy or brand boycott. We further explain how online and offline behaviors can be intertwined.

The case of Gilette's advertising campaign aimed at combatting toxic masculinity showed that some men consumers (according to our propositions, those with strong gender identities and highly conservative gender role beliefs) engaged in critical and even hostile comments about the brand and its ad online, including comments in YouTube and posts in their own social media, and disposed of the Gillette products as a form of brand protest and boycott, posting their disposal actions in their social media once again (Baynes, 2019). Similarly, a more positive scenario can occur: a man consumer with strong gender identity and progressive gender role beliefs, being a loyal customer of Gillette, can further endorse the brand and its campaign online by leaving a comment on the brand's social media or engaging in interaction with hostile commenters thus supporting the brand and signaling his identity.

These examples show that for consumers with strong identities, online and offline identity signaling behaviors can be intertwined. Driven by their increased desire to signal identity, those consumers might be more likely to engage in various types of identity signaling, compared to consumers with weaker identities. For consumers with weaker identities, signaling their identity online is not so important in the first place, and identity signaling actions would have a compensatory, rather than additive, effect. For example, they could suffice with less intense online signaling behavior or a mere purchase of an identity-related brand, but it is unlikely that they would go beyond that as their identity signaling desire is rather low. Thus, we propose that:

P6 Consumers with strong identity not only engage in intense identity signaling digital behaviors, but are also motivated to engage in offline identity signaling behaviors (and vice versa) as a means to signal their identity

In sum, our conceptual framework contributes to the understanding of identity signaling digital behaviors and the

influence of identities on them. Combining identity strength and identity signaling theory (Gal, 2015), we discuss how they influence the intensity of identity signaling digital behaviors, i.e., the extent of consumer effort and behavior visibility. We further discuss several internal and external identity-related factors that can shed light on the content of identity signaling behaviors online as well as on the variability in identity signaling desire.

We contend that our conceptual framework, for the most part, can be applied to various identities. We discuss our model based on the examples related to gender identity, and thus show the importance of understanding the phenomenon of gendered digital behaviors for researchers and practitioners. However, we believe that the discussion of our model in relation to gender is incomplete without explaining the experiences of trans consumers. Most of the consumer research on LGBTQ + identities focuses on experiences of middle-class gay cis-men in the Western world (Coffin et al., 2019), thus largely excluding trans or non-binary individuals. We, therefore, want to fill in this gap. In the next section, we discuss how our proposed framework might explain relevant behaviors of trans and non-binary consumers.

Transgender and non-binary consumers

One exception that focuses on the experiences of transgender consumers is the work of Ruvio and Belk (2018) which discusses the role of possessions of trans people and builds on the theories of extended self (Belk, 1988) and gender performativity (Butler, 1990). Those authors consider four different strategies that transgender consumers implement concerning their possessions as extensions of their selves: backward self-extension, forward self-extension, parallel self-extension, and the metamorphosis of the core self. We suggest that these strategies, combined with our conceptual framework, can further explain the gender-related digital behaviors of transgender consumers.

According to Ruvio and Belk (2018), initially, trans individuals might deny the fact of their transgenderism and use stereotypical possessions, common for their sex assigned at birth, to show that they do not deviate from the norm. This is an example of a backward self-extension. We posit that at that stage, they are unlikely to strongly identify with their gender group, thus, they may not want to signal that identity. On the contrary, they try to hide it from everyone including themselves. However, at a later stage, transgender individuals could apply other extension strategies—constructing parallel desired selves online (parallel self-extension), acquiring products that reflect their desired identity, i.e., not their sex but gender that they identify with (forward self-extension), and getting rid of all the possessions that reflect their old selves and adopting elements that signal their true gender identity (metamorphoses of the core self) (Ruvio & Belk, 2018). Thus, their gender identity first becomes the desired self, and afterward a part of their core self. Applying our conceptual model, we predict that transgender consumers with strong gender identity are more likely to use the strategies of forward self-extension and metamorphoses of the core self, i.e., choose brands that are congruent with their gender and avoid gender-incongruent ones, further intensively supporting congruent brands online, which is motivated by the desire to signal their identity.

Interestingly, Ruvio and Belk (2018) report that trans individuals prefer to construct their gender identities in a way that is stereotypical of the gender that they identify with. However, Iantaffi and Bockting (2011) show that trans individuals differ in their evaluations of gender norms and conformity to them, but challenging traditional gender roles and stereotypes is much harder for trans people than for cis, as they can feel that their gender identity is being put under question in that case. Taking into consideration our model and research propositions, we thus hypothesize that gender role beliefs of strongly identified trans people who prefer to self-identify in binary terms of men and women, would affect how they want to signal their gender in their digital and offline consumer behaviors, i.e., P2a can apply to transgender consumers too.

Furthermore, it is important to consider the role of gender identity threat for transgender consumers. For them, the effect of self-directed gender identity threats may be especially harmful. Many trans women and men face the threat of misgendering, i.e., misclassification of one's gender identity, on a daily basis, which can be categorized as a self-directed gender identity threat. Misgendering could also happen in consumption contexts, for example, when an individual is being escorted to the fitting rooms of the gender that they do not identify with (Wooten & Rank-Christman, 2019), or in digital spaces. This can lead to negative consequences for trans individuals, such as having lower evaluations of their appearance, feeling less authentic, and feeling more transgender stigma (McLemore, 2015). Applying our model, trans people with strong gender identity might respond with an increased desire to signal their identity through digital behaviors as well as congruent brand choice and advocacy to communicate their gender identity when faced with a self-directed threat. In addition, we propose that the effect of a group-directed gender identity threat will be similar for trans consumers too. When the value of trans men or women is undermined online, those trans consumers with weak gender identities would be more likely to hide their gender identity and not signal it in digital spaces, whereas those with stronger gender identities could be confident enough to defend their gender group and continue signaling their

gender online, including the support of brands on social media that are relevant for their trans man (woman) identity (e.g., those brands that stand for trans rights/visibility).

A related question is whether our conceptual model can explain digital and offline consumer behaviors of non-binary individuals. Hegarty et al. (2018) state that non-binary identity is an umbrella term for those identities that do not fall into the binary gender dimension of men and women. Thus, non-binary individuals can have either no gender (e.g., agender), have aspects of both men and women and move between genders (e.g., bigender), or have other identities outside binary gender. Non-binary individuals face societal discrimination because of rejecting the established gender binary structure and often feel excluded even from trans communities because of being not trans enough (Matsuno & Budge, 2017).

Because of the variability of non-binary identities, it might be more complicated to understand their experiences and digital behaviors. On the one hand, some non-binary consumers that identify as agender might prefer and support products and brands that explicitly communicate that they are neither women nor men (Hesse, 2014); on the other hand, other non-binary individuals can be more androgynous, i.e., express their identities in both masculine and feminine ways (in relation to their appearance), though it does not mean that all non-binary people are androgynous as is often implied by society (Dembroff, 2018). Nevertheless, we assume that for non-binary individuals who strongly identify with their identity (whatever it might be outside binary terms), the desire to signal that particular identity is as important as it is for cis and trans binary consumers. For example, for many non-binary individuals the use of specific pronouns is an important matter because they do not want to be perceived as a man or a woman, they prefer to use (and prefer others to do the same) gender-neutral pronouns, e.g., they/them/their as a singular pronoun (Matsuno & Budge, 2017), which might be a means to signal their non-binary gender identity. Similarly, this desire to communicate their identity can manifest itself in their choice and online support of gendered products, non-gendered (unisex) products, or a combination of different gendered products to reflect their identity. Because of the variety of non-binary identities and their gender non-conforming nature, we suggest that the moderating role of gender role beliefs might not play the same role in that case. Bradford and Catalpa (2019) find that trans non-binary people, unlike trans binary, have lower levels of gender determinism, i.e., they distinctively question the structure of traditional gender roles. Thus, we find it unlikely that non-binary consumers would signal their gender identity in traditional or gender-stereotypical ways. Rather, we think that their gender self-category might give more insights on how they signal gender, i.e., whether they identify as genderblended, agender/postgender, etc. In general, we believe that our conceptual model is broad enough to explain the online and offline behaviors of non-binary consumers, but more research in this field is needed to understand identity signaling behaviors of different identities within the non-binary.

Conclusion

Theoretical contribution and managerial implications

In this work, we conceptualize the role of identity in digital consumer behaviors using identity strength as well as identity signaling theory. We make several contributions to various literature streams.

Firstly, we extend knowledge on the variety of identity-relevant digital behaviors. We classify consumer digital behaviors by the level of intensity, i.e., their effortfulness and visibility, to illustrate a continuum of actions that consumers can undertake online to signal their identities. As Grewal and Stephen (2019) and Roma and Aloini (2019) suggest, not all online outlets are equally suitable for expressing identity; similarly, we argue that concrete digital actions differ in their ability to satisfy identity signaling desire. Thus, we also separate digital behavior intensity and digital behavior content, i.e., what exactly consumers decide to share and post online, and show that different identity-related constructs might predict these behaviors.

Additionally, we look at two types of identity threats outlined by Ellemers et al. (2002) and analyze how they can increase or decrease one's desire to signal their gender identity online. Continuing the work of Grewal et al. (2019) we further explain how digital and offline identity signaling behaviors are intertwined.

We further contribute to a more nuanced understanding of the role of gender identity in digital and offline consumer behaviors. We propose a novel way to investigate this topic through the lens of the self-categorization approach to gender, consisting of gender identity strength and self-categorized gender (Wood & Eagly, 2015), but also considering consumers' gender role beliefs as an indicator of gender identity meaning, to gain an understanding of both intensity and content of gender identity relevant behaviors. We thus emphasize the multidimensional view on gender in consumer research. We contend that other identities can also be analyzed multidimensionally in relation to digital identity signaling behaviors, i.e., not only through identity label and identity strength, but also with the focus on identity meaning, which is rarely looked at in consumer psychology (Wooten & Rank-Christman, 2022).

We finally discuss how our conceptual model might help us understand gender-related consumer behaviors of trans consumers, whose behaviors and motivations have been largely overlooked in consumer research.

Our work can also provide several useful insights for marketing managers. We predict that consumers are more likely to support brands that are relevant to the meaning and content of their identities when they strongly identify with their identity group. Marketers can leverage this insight by strengthening consumers' identities and encouraging them to recognize their importance, through marketing communication. Further, marketers can intentionally provide opportunities for consumers to generate and share online content that is expressive of their desire to signal their identity. Such user-generated content can engender favorable attitudes towards the brand by associating the brand with an important aspect of consumers' identity, for strong identifiers. In relation to gender, we believe that our framework is inclusive of consumers of all genders and can encourage marketers to create and deliver value to a wider group of consumers not just through signaling stereotypically masculine or feminine traits but through a more nuanced understanding of gender identity and identity signaling behavior.

Limitations and future research directions

We acknowledge that our work has limitations that can potentially be addressed by future research in this area. Firstly, we acknowledge that some consumers, even with strong identities, might be not motivated to signal them online. This might depend on several factors that require further exploration. Firstly, not all consumers are equally engaged in the use of social media and other digital networks, thus, they might prefer offline options of identity signaling to online ones. Secondly, some consumers might be skeptical when brands or social media influencers appeal to particular identities in their communication and thus might be not motivated to signal their identity by liking or sharing brand-/influencer-generated content. Future research could investigate which brand/influencer identity-related communication is perceived as authentic and worthy of interacting with and sharing as a means to signal a consumer's identity.

Further, in our work, we focus mostly on signaling one particular identity (e.g., gender), rather than various identities at once, or signaling conflicting identities. In general, identity interplay research in consumer behavior is rather scarce for different reasons, and requires further exploration (Forehand et al., 2021). Future research could also take into account the effect of the interplay of identities on digital identity signaling behaviors.

Additionally, related to gender identities, our conceptual model does not fully explain the digital identity-related behaviors of trans non-binary consumers. As non-binary individuals are unlikely to have traditional gender role beliefs, the content of their behaviors, i.e., what products and brands they decide to share and support online, might depend on their self-categorized gender within the non-binary umbrella (e.g., agender) and what meaning they assign to it. These genders require more investigation to understand identity signaling of non-binary consumers.

In sum, identity-driven digital consumer behavior is a topic ripe for consumer researchers to explore and advance, and one that has several implications for brand and communication managers as well as for digital and social media platforms.

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References

Aaker, J. L. (1999). The malleable self: The role of self-expression in persuasion. *Journal of Marketing Research*, *36*(1), 45–57.

Back, M. D., Stopfer, J. M., Vazire, S., Gaddis, S., Schmukle, S. C., Egloff, B., & Gosling, S. D. (2010). Facebook profiles reflect actual personality, not self-idealization. *Psychological Science*, *21*, 372–374.

Banet-Weiser, S. (2018). *Empowered: Popular feminism and popular misogyny*. Duke University Press.

Baynes, C. (2019). Gillette advert prompts furious conservatives to throw away razors in protest at effort to tackle toxic masculinity. Independent. Retrieved December 15, 2020 from https://www.independent.co.uk/news/gillette-advert-backlash-men-throw-away-razors-toxic-masculinity-metoo-a8730386.html

Becker, J. C., & Wagner, U. (2009). Doing gender differently—The interplay of strength of gender identification and content of gender identity in predicting women's endorsement of sexist beliefs. *European Journal of Social Psychology*, *39*(4), 487–508.

Belk, R. W. (1988). Possessions and the extended self. *Journal of Consumer Research*, *15*(2), 139–168.

Belk, R. W. (2013). Extended self in a digital world. *Journal of consumer research*, *40*(3), 477–500.

Bem, S. L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology*, *42*(2), 155–162.
Bem, S. L. (1981). Gender schema theory: A cognitive account of sex typing. *Psychological Review*, *88*(4), 354–364.
Berger, J., & Heath, C. (2007). Where consumers diverge from others: Identity signaling and product domains. *Journal of Consumer Research*, *34*(2), 121–134.
Bernritter, S. F., Loermans, A. C., Eigenraam, W., A., & Verlegh, P. W. (2022). I am not what I like: Endorsing brands on social media negatively affects consumers' self-evaluation. *Journal of Interactive Marketing*, *57*(1), 159–175.
Bogen, K. W., Williams, S. L., Reidy, D. E., & Orchowski, L. M. (2021). We (want to) believe in the best of men: A qualitative analysis of reactions to #Gillette on Twitter. *Psychology of Men & Masculinities*, *22*, 101–112.
Bolton, L. E., & Reed, A. (2004). Sticky priors: The perseverance of identity effects on judgment. *Journal of Marketing Research*, *41*(4), 397–410.
Bosson, J. K., & Michniewicz, K. S. (2013). Gender dichotomization at the level of ingroup identity: What it is, and why men use it more than women. *Journal of Personality and Social Psychology*, *105*(3), 425–442.
Bradford, N. J., & Catalpa, J. M. (2019). Social and psychological heterogeneity among binary transgender, non-binary transgender and cisgender individuals. *Psychology & Sexuality*, *10*(1), 69–82.
Branscombe, N. R., Ellemers, N., Spears, R., & Doosje, B. (1999). The context and content of social identity threat. In N. Ellemers, R. Spears, & B. Doosje (Eds.), *Social identity: Context, commitment, content* (pp. 35–58). Blackwell.
Brough, A. R., Wilkie, J. E. B., Ma, J., Isaac, M. S., & Gal, D. (2016). Is eco-friendly unmanly? The green-feminine stereotype and its effect on sustainable consumption. *Journal of Consumer Research*, *43*(4), 567–582.
Butler, J. (1990). *Gender trouble: Feminism and the subversion of identity*. Routledge.
Cameron, J. E., & Lalonde, R. N. (2001). Social identification and gender-related ideology in women and men. *British Journal of Social Psychology*, *40*(1), 59–77.
Chan, C., Berger, J., & Van Boven, L. (2012). Identifiable but not identical: Combining social identity and uniqueness motives in choice. *Journal of Consumer Research*, *39*(3), 561–573.
Chrisler, J. C. (2013). Womanhood is not as easy as it seems: Femininity requires both achievement and restraint. *Psychology of Men & Masculinity*, *14*(2), 117–120.
Coffin, J., Eichert, C. A., & Nolke, A. I. (2019). Towards (and beyond) LGBTQ + studies in marketing and consumer research. In S. Dobscha (Ed.), *Handbook of research on gender and marketing* (pp. 273–293). Edward Elgar Publishing.
Corrigall, E. A., & Konrad, A. M. (2007). Gender role attitudes and careers: A longitudinal study. *Sex Roles*, *56*(11–12), 847–855.
Dembroff, R. (2018). Why be nonbinary? Aeon. Retrieved July 29, 2020 from https://aeon.co/essays/nonbinary-identity-is-a-radical-stance-against-gender-segregation
Eagly, A. H., Nater, C., Miller, D. I., Kaufmann, M., & Sczesny, S. (2020). Gender stereotypes have changed: A cross-temporal meta-analysis of U.S. public opinion polls from 1946 to 2018. *The American Psychologist*, *75*, 301–315.
Ellemers, N., Spears, R., & Doosje, B. (2002). Self and social identity. *Annual Review of Psychology*, *53*(1), 161–186.
Escalas, J. E., & Bettman, J. R. (2005). Self-construal, reference groups, and brand meaning. *Journal of Consumer Research*, *32*(3), 378–389.
Ethier, K. A., & Deaux, K. (1994). Negotiating social identity when contexts change: Maintaining identification and responding to threat. *Journal of Personality and Social Psychology*, *67*(2), 243–251
Evers, A., & Sieverding, M. (2014). Why do highly qualified women (still) earn less? Gender differences in long-term predictors of career success. *Psychology of Women Quarterly*, *38*(1), 93–106.
Fischer, E., & Arnold, S. J. (1990). More than a labor of love: Gender roles and Christmas gift shopping. *Journal of Consumer Research*, *17*(3), 333–345.
Fischer, E., & Arnold, S. J. (1994). Sex, gender identity, gender role attitudes, and consumer behavior. *Psychology & Marketing*, *11*(2), 163–182.
Forehand, M., Reed, I. I., A., & Saint Clair, J. K. (2021). Identity interplay: The importance and challenges of consumer research on multiple identities. *Consumer Psychology Review*, *4*(1), 100–120.
Gal, D. (2015). Identity-signaling behavior. In M. I. Norton, D. D. Rucker, & C. Lamberton (Eds.), *The Cambridge handbook of consumer psychology* (pp. 257–281). Cambridge University Press.
Gal, D., & Wilkie, J. (2010). Real men don't eat quiche: Regulation of gender-expressive choices by men. *Social Psychological and Personality Science*, *1*(4), 291–301.
Gershoff, A. D., & Mukherjee, A. (2015). Online social interaction. In M. I. Norton, D. D. Rucker, & C. Lamberton (Eds.), *The Cambridge handbook of consumer psychology* (pp. 476–504). Cambridge University Press.
Green, D. (2019). Gillette chastises men in a new commercial highlighting the #MeToo movement — and some are furious. Business Insider. Retrieved July 25, 2020 from https://www.businessinsider.com/gillette-metoo-commercial-criticizes-men-2019-1?r=DE&IR=T
Grewal, L., & Stephen, A. T. (2019). Identity in the digital age. In A. Reed II, & M. Forehand (Eds.), *Handbook of research on identity theory in marketing* (pp. 388–403). Edward Elgar Publishing.
Grewal, L., Stephen, A. T., & Coleman, N. V. (2019). When posting about products on social media backfires: The negative effects of consumer identity signaling on product interest. *Journal of Marketing Research*, *56*(2), 197–210.
Grohmann, B. (2009). Gender dimensions of brand personality. *Journal of Marketing Research*, *46*(1), 105–119.
Hartmann, J., Heitmann, M., Schamp, C., & Netzer, O. (2021). The power of brand selfies. *Journal of Marketing Research*, *58*(6), 1159–1177.
Hayes, J. L., Brinson, N. H., Bott, G. J., & Moeller, C. M. (2021). The influence of consumer—brand relationship on the personalized advertising privacy calculus in social media. *Journal of Interactive Marketing*, *55*, 16–30.
Hegarty, P., Ansara, Y. G., & Barker, M. J. (2018). Nonbinary gender identities. In N. K. Dess, J. Marecek, & L. C. Bell (Eds.), *Gender, sex, and sexualities: Psychological perspectives* (pp. 53–76). Oxford University Press.
Hesse, M. (2014). When no gender fits: A quest to be seen as just a person. The Washington Post. Retrieved July 29, 2020 from https://www.washingtonpost.com/national/when-no-gender-fits-a-quest-to-be-seen-as-just-a-person/2014/09/20/1ab21e6e-2c7b-11e4-994d-202962a9150c_story.html
Hines, S., & Taylor, M. (2018). *Is Gender Fluid? A primer for the 21st century*. Thames & Hudson.
Hogg, M. A., & Turner, J. C. (1987). Intergroup behaviour, self-stereotyping and the salience of social categories. *British Journal of Social Psychology*, *26*(4), 325–340.
Hollenbeck, C. R., & Kaikati, A. M. (2012). Consumers' use of brands to reflect their actual and ideal selves on Facebook. *International Journal of Research in Marketing*, *29*, 395–405.
Iantaffi, A., & Bockting, W. O. (2011). Views from both sides of the bridge? Gender, sexual legitimacy and transgender people's experiences of relationships. *Culture Health & Sexuality*, *13*(03), 355–370.
Ilgaz, Z. (2014). Lead like a girl: how to empower women at every level. Forbes. Retrieved June 18, 2020 from https://www.forbes.com/sites/ellevate/2014/08/25/lead-like-a-girl-how-to-empower-women-at-every-level/#73621f376714

Jensen Schau, H., & Gilly, M. C. (2003). We are what we post? Self-presentation in personal web space. *Journal of Consumer Research*, *30*(3), 385–404.

Keener, E. (2015). The complexity of gender: It is all that and more… In sum, it is complicated. *Sex Roles*, *73*(11), 481–489.

Kettle, K. L. (2019). Identity salience: Understanding when identity affects consumption. In A. Reed II, & M. Forehand (Eds.), *Handbook of research on identity theory in marketing* (pp. 30–43). Edward Elgar Publishing.

Lamberton, C., & Stephen, A. T. (2016). A thematic exploration of digital, social media, and mobile marketing: Research evolution from 2000 to 2015 and an agenda for future inquiry. *Journal of Marketing*, *80*(6), 146–172.

Lemaster, P., & Strough, J. (2014). Beyond Mars and Venus: Understanding gender differences in financial risk tolerance. *Journal of Economic Psychology*, *42*, 148–160.

Luhtanen, R., & Crocker, J. (1992). A collective self-esteem scale: Self-evaluation of one's social identity. *Personality and Social Psychology Bulletin*, *18*(3), 302–318.

Maldonado, R., Tansuhaj, P., & Muehling, D. D. (2003). The impact of gender on ad processing: A social identity perspective. *Academy of Marketing Science Review*, *3*(3), 1–15.

Martin, K. D., & Murphy, P. E. (2017). The role of data privacy in marketing. *Journal of the Academy of Marketing Science*, *45*, 135–155.

Matsuno, E., & Budge, S. L. (2017). Non-binary/genderqueer identities: A critical review of the literature. *Current Sexual Health Reports*, *9*(3), 116–120.

McLemore, K. A. (2015). Experiences with misgendering: Identity misclassification of transgender spectrum individuals. *Self and Identity*, *14*(1), 51–74.

Meier-Pesti, K., & Penz, E. (2008). Sex or gender? Expanding the sex-based view by introducing masculinity and femininity as predictors of financial risk taking. *Journal of Economic Psychology*, *29*(2), 180–196.

Nadkarni, A., & Hofmann, S. G. (2012). Why do people use Facebook? *Personality and Individual Differences*, *52*(3), 243–249.

O'Neil, J., Helms, B., Gable, R., David, L., & Wrightsman, L. (1986). Gender-role conflict scale: College men's fear of femininity. *Sex Roles*, *14*, 335–350.

Oyserman, D. (2009). Identity-based motivation: Implications for action-readiness, procedural-readiness, and consumer behavior. *Journal of Consumer Psychology*, *19*(3), 250–260.

Palan, K. M. (2001). Gender identity in consumer behavior research: A literature review and research agenda. *Academy of Marketing Science Review*, *10*(2001), 1–31.

Pinna, M. (2020). Do gender identities of femininity and masculinity affect the intention to buy ethical products? *Psychology & Marketing*, *37*(3), 384–397.

Reed, I. I., Forehand, A., Puntoni, M. R., S., & Warlop, L. (2012). Identity-based consumer behavior. *International Journal of Research in Marketing*, *29*(4), 310–321.

Roma, P., & Aloini, D. (2019). How does brand-related user-generated content differ across social media? Evidence reloaded. *Journal of Business Research*, *96*, 322–339.

Ruvio, A., & Belk, R. (2018). Strategies of the extended self: The role of possessions in transpeople's conflicted selves. *Journal of Business Research*, *88*, 102–110.

Schmitt, M. T., & Branscombe, N. R. (2001). The good, the bad, and the manly: Threats to one's prototypicality and evaluations of fellow in-group members. *Journal of Experimental Social Psychology*, *37*(6), 510–517.

Sellers, R. M., Smith, M. A., Shelton, J. N., Rowley, S. A., & Chavous, T. M. (1998). Multidimensional model of racial identity: A reconceptualization of African American racial identity. *Personality and Social Psychology Review*, *2*(1), 18–39.

Spence, J. T. (1993). Gender-related traits and gender ideology: Evidence for a multifactorial theory. *Journal of Personality and Social Psychology*, *64*(4), 624–635.

Spence, J. T., Helmreich, R., & Stapp, J. (1975). Ratings of self and peers on sex role attributes and their relation to self-esteem and conceptions of masculinity and femininity. *Journal of Personality and Social Psychology*, *32*(1), 29–39.

Spielmann, N., Dobscha, S., & Lowrey, T. M. (2021). Real Men Don't Buy "Mrs. Clean": Gender Bias in Gendered Brands. *Journal of the Association for Consumer Research*, *6*(2), 211–222.

Stephen, A. T. (2016). The role of digital and social media marketing in consumer behavior. *Current Opinion in Psychology*, *10*, 17–21.

Suler, J. (2004). The online disinhibition effect. *CyberPsychology & Behavior*, *7*, 321–326.

Tobin, D. D., Menon, M., Menon, M., Spatta, B. C., Hodges, E. V., & Perry, D. G. (2010). The intrapsychics of gender: A model of self-socialization. *Psychological Review*, *117*(2), 601.

Ulrich, I. (2013). The effect of consumer multifactorial gender and biological sex on the evaluation of cross-gender brand extensions. *Psychology & Marketing*, *30*(9), 794–810.

Vagianos, A. (2015). The reaction to #LikeAGirl is exactly why it's so important. HuffPost. Retrieved November 30, 2021 from https://www.huffpost.com/entry/why-like-a-girl-is-so-important_n_6598970

van Breen, J. A., Spears, R., Kuppens, T., & de Lemus, S. (2017). A multiple identity approach to gender: Identification with women, identification with feminists, and their interaction. *Frontiers in Psychology*, *8*, 1019.

Vandello, J. A., Bosson, J. K., Cohen, D., Burnaford, R. M., & Weaver, J. R. (2008). Precarious manhood. *Journal of Personality and Social Psychology*, *95*(6), 1325–1339.

Watson (2019). Dove Men + Care appoints BBD Perfect Storm's New Macho unit to evolve masculinity work. The Drum. Retrieved June 2, 2021 from https://www.thedrum.com/news/2019/08/05/dove-mencare-appoints-bbd-perfect-storms-new-macho-unit-evolve-masculinity-work

Webb, L. M., & Temple, N. (2016). Social media and gender issues. In B. Guzetti, & M. Lesley (Eds.), *Handbook of research on the societal impact of digital media* (pp. 638–669). IGI Global.

White, K., & Argo, J. J. (2009). Social identity threat and consumer preferences. *Journal of Consumer Psychology*, *19*(3), 313–325.

White, K., & Dahl, D. W. (2006). To be or not be? The influence of dissociative reference groups on consumer preferences. *Journal of Consumer Psychology*, *16*(4), 404–414.

Wood, W., & Eagly, A. H. (2009). Gender identity. In M. R. Leary, & R. H. Hoyle (Eds.), *Handbook of individual differences in social behavior* (pp. 109–125). The Guilford Press.

Wood, W., & Eagly, A. H. (2015). Two traditions of research on gender identity. *Sex Roles*, *73*(11), 461–473.

Wooten, D., & Rank-Christman, T. (2019). Stigmatized-identity cues: Threats as opportunities for consumer psychology. *Journal of Consumer Psychology*, *29*(1), 142–151.

Wooten, D. B., & Rank-Christman, T. (2022). The significance and meaning of racial identity in consumer research: A review and call for research. *Consumer Psychology Review*, *5*(1), 19–32.