Advocate, loyalist, and referrer influencers:

The effects of message interactivity and emotionality on purchase intention

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Abstract

Aim

Influencers on social media are rising. In the past influencers were defined by quality factors such as the number of followers. Popular marketing blogs are now also looking at quality factors to categorise influencers. These blogs discuss the influencer types advocates, loyalist, and referrers, yet these types were never academical explored. This study defines them as following: Advocate influencers defend and promote products and brands. Referrer influencers are influencers who share knowledge. Loyalist influencers are committed influencers who share positive information about brands and products. This study adds a fourth influencer: the socialiser. The socialiser influencer uses emotional components and invites people for conversation. This study divides these influencer types over interactivity and emotionality and explore their effects on the purchase intention, source credibility and parasocial interaction on Instagram. The number of followers is added to this study to determine if they have a relation with interactivity and emotionality on purchase intention.

Method

A between-subjects 2 (low vs high interactivity) x 2 (low vs high emotionality) x 2 (micro vs meso influencer) experimental design in the form of an online experiment was implemented to examine the effect of purchase intention, source credibility, and parasocial interaction. A total of 244 respondents, who are above 18 years and have Instagram, were recruited for the experiment by using the snowball sampling method. Participants were randomly exposed to one of the eight conditions. Each condition showed a profile of a fictional influencer in which the numbers of followers were manipulated and 3 ecological posts in which interactivity and emotionality in the descriptions were manipulated.

Results

The findings show that interactivity, emotionality, and the number of followers did not have a significant effect on purchase intention. No interaction effects between the variables were found. A significant effect of interactivity and emotionality was found on parasocial interaction. High emotionality leads to a higher level of parasocial interaction, and a low level of interactivity leads to a higher level of parasocial interaction. The additional analyses showed that only trustworthiness and parasocial interaction had an influence on the purchase intention. The effect of interactivity and emotionality on purchase intention was not mediated by source credibility and parasocial interaction. Additional analyses showed significant effects of attitude on the purchase intention, expertise, and trustworthiness. The additional analyses also showed that if people before the study follow influencers and if they bought something an influencer recommends had a significant effect on the purchase intention.

Conclusion

With this study it can be concluded that to strengthen purchase intention for green products, marketeers should look beyond the level of interactivity and emotionality of a message description and number of followers of an influencer. Even though this study did not find any effects of the influencer types, it cannot be concluded that the influencer types do not influence purchase intention. Additional research is needed to better understand the influencer types and their effects. This study showed that if marketeers want to strengthen purchase intention, they should be focussing on parasocial interaction and trustworthiness. Lastly, it can be recommended that if marketeers want to strengthen the purchase intention, they should get to know their audience. For example, their attitude towards green products and whether they follow and bought products that influencers recommend.

Keywords: Influencers, advocate, loyalist, referrer, micro, meso, emotionality, interactivity, source credibility, parasocial interaction, purchase intention.

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1 Introduction

Social media is getting more popular (Sokolova & Kefi, 2020). Social media platforms such as Instagram became a part of businesses marketing strategies. Using these platforms to promote products is proven to be successful. Unique compared to traditional media is that users can make their own content. Social media users find this user generated content more interesting and compelling compared to content that is presented by the companies themselves, which makes it interesting for companies to use user generated content. This content varies between *'personal stories, ideas, reviews, opinions, feelings, emotions, etc.'* (Sokolova & Kefi, 2020, p1)*. Some people who create user generated content can gain influence over their followers and become influencers. Influencers can be described as opinion leaders on social media who shapes audiences' attitudes (Freberg et al. 2011; Lim et al., 2017). Influencers are sometimes active in a specific industry, for example food or fashion industry (Yalcin et al, 2020). One industry that needs promotion is the sustainable industry, because sustainability contributes to human-wellbeing (Jamieson, 1998). Humans are using too much natural resources, which leads to major ecological problems, with for example the climate. Eco-influencers are influencers who promote sustainability and a sustainable lifestyle. Their goal is to educate, inform, and entertain people through social media (Yalcin et al., 2020). One of the most well-known international eco-influencers on Instagram is Greta Thunberg (n.d.).

In the past influencers like Greta Thunberg (n.d.) were defined by quantity factors such as the number of followers. Popular marketing blogs are now looking at the quality factors besides the quantity factors (Babich, 2018; Brown, 2021; Nane, 2020; Mavrck, 2022, Roovers, 2020). Those blogs divided the quality and quantity factors into two influencer type categories. The first categorisation is based on the content and the second categorisation is based on the number of followers, which will be discussed later in the introduction. There has been no academic research about their categorisation based on content, but since multiple blogs use this division, it is important to know what this distinction really means and whether the influencer types in this category have different effects. This study will focus on this research gap. The categorisation based on content is not yet academically explored. This study defines these influencer types in the categorisation based on content as following: Advocate influencers defend and promote products and brands by having conversations with other brands and influencers. An example of an advocate influencer is @sustainabledish (Rodgers, 2021). Referrer influencers are influencers who share knowledge. An example of a referrer influencer is @shaesburns (Burns, 2021). Loyalist influencers are committed influencers who share positive information about brands and products. An example of a loyalist is @sustainabledaisy (Karen, 2017). Example Instagram descriptions of posts of these influencers can be found in Table 1.

This study argues this division of the popular literature because comparing the influencers is difficult, because these influencers are having many different characteristics. It is therefore hard to say what characteristic would be the cause of any effects. This study therefore proposes a new way to categorise distribution for the three types of influencers who were described in the previous paragraphs. This study also proposes a fourth type of influencer into the new categorisation. This fourth influencer uses emotional arguments and interactive communication. In this thesis the fourth type has been given the name of socialiser. Socialisation is about having a conversation and it is related to emotional influencing. An example of a socialiser influencer is @ecowarriorprincess (Nini, 2021) because she uses emotional components, and she invites people for conversation. A description of her Instagram post can be found in Table 1. The four types of influencers are divided over two factors: interactivity and emotionality in the new categorisation. Interactivity is about the relation between the influencers and the receivers (Jenkins, 1998). The referrers and loyalists have a low level of interactivity because they do not seek as much interaction with their audience compared to advocates and socialisers who have a higher level of interactivity because they invite people for

conversation. Emotionality is about feelings that an influencer can use in their communication (Oraby et al., 2017; Zhang et al., 2014). For example, the loyalists and socialisers use a lot of emotional components in their messages, compared to advocates and referrers who use less emotion in their messages and use more factual arguments. Table 1 shows this distribution of influencers across the two variables.

Table 1
Four types of influencers

	Low emotionality	High emotionality
	Referrer	Loyalist
Low interactivity	shaesburns · Follow shaesburns ad: scalp care is the new skin care // a healthy scalp = healthy hair! Makes sense, but I never actually thought about your scalp being the literal root of it all. A healthy scalp can make your hair shinier, softer and more hydrated while I go through this period of postpartum hair loss. I was recently introduced to @soley_iceland Graedir Shampoo and Conditioner with sustainably sourced herbs like yarrow, birch and willow which are reported to be amazing for your scalp. So do they work? A review is on my blog. #GraedirSoley #cleanbeautyreview #scalpcare 32w	sustainabledaisy · Follow Los Angeles, California sustainabledaisy Cork is an amazingly sustainable material. It's naturally renewable, plant-based, and a great substitute for leather! I switched out my leather wallet for this beautiful cork purse by @friluk_ltd. I love using an eco accessory that I see everyday, as well as other people can see. When I get compliments I love telling people about the material and why I prefer consciously-made products. Sustainable fashion is such a great way to outreach and spread knowledge and positivity in the world. 🌸 . #ecofriendlyfashion #gogreen #consciousconsumer #goinggreen #consciousliving #ecoblog #ecobeauty #ecoliving #ecofriendlyfashion #slowfashion #fairtradefashion #ecochic #fashionrevolution 226w
	Advocate	Socialiser
High interactivity	sustainabledish ✔ · Follow sustainabledish ✔ It's repeated over and over again: cow farts are ruining our planet! (Perhaps a pedantic bit of hairsplitting, but cattle don't really fart methane; they mostly belch it, as a part of their digestive process.) We're told by mainstream media that livestock are worse than all of transportation. However, this is a lie. Yes, I'm looking at you @meatlessmonday and @nytimes In this blog post, taken from @dasrobbwolf and my book, Sacred Cow, you'll learn why it's not the cow, it's the cars. Read more in the link in my bio. #meatlessmonday #cowfarts #methane #methaneemissions #carboncycle #regenerativeag #regenerativegrazing #transportationemissions	ecowarriorprincess · Follow Micah Edwards · All for You (feat. Theo Juarez) ecowarriorprincess TO HELP YOU PREPARE FOR PLASTIC FREE JULY: Here are 8 tips for a month without single-use plastic. We recommend you pack your 'zero waste kit' so it's ready for you first thing in the morning and you don't forget it in your mad scramble to drop off kids, or get to work or school. Will you be undertaking the @plasticfreejuly challenge? Tag your friends, the more of us who reduce their plastic waste, the merrier it will be for us all (including animals and the planet)❤ Videos via Pexels (Sarah Chai, Polina Kovaleva, Mikhail Nilov, Tima Miroshnichenko) #sustainableliving #sustainableliving #zerowaste #lowwaste #gogreen #environment #ecofriendly #plasticfree #plasticfreejuly 19w

Note. Descriptions of Instagram posts from Burns (2021), Karen (2017), Nini (2021) and Rodgers (2021).

The other categorisation of influencers is based on the number of followers and consists of micro and meso influencers. Micro influencers have thousand to ten thousand followers (Boerman, 2020). An example of a micro influencer is eco-influencer Kat, because she has 7252 followers on Instagram (@sweet.sustainability on Instagram). Meso influencers have ten thousand to a hundred thousand followers on social media (Boerman, 2020; Mennes, et al., 2019). An example of a meso eco-influencer is Chayne, who has 60.3 thousand followers on Instagram (@greendreamerkamea on Instagram). In the Netherlands the macro influencer is not a common type of influencer, therefore it is not part of this study (Tankovska, 2021). According to Freberg et al. (2011), already much research has been done on the number of followers, because previous research mostly focused on quantity factors to define influencers. These studies found that the number of followers influence credibility, attractiveness of an influencer, and purchase intention (Brewster & Lyu, 2020; Chapple & Cownie, 2017; Jin & Phua, 2014; Probstnerová, 2018). For this reason, the current study focuses on the

combination of the micro and meso influencers with interactivity or emotionality, instead of the individual effects of micro and meso influencers.

The number of influencers is rising and with all those different influencer types, it can be relevant for marketeers to know which type of influencer has the most positive effect on purchase intention of receivers. Purchase intention is the willingness of people to buy and is used by marketeers as key performance indicator (Lou & Kim, 2019). There are other factors that can have a positive influence whether the receivers are willing to buy products besides the different types of influencers. For example, the source credibility and parasocial interaction (Audrezet et al., 2020; Lou & Kim, 2019; Yuan & Lou, 2020). For influencers it is important to be perceived credible because it plays a crucial part in whether receivers accept a message or scroll further on social media (Sokolova & Kefi, 2020). Using a credible influencer is important for marketeers because receivers use the influencer to judge the company they are promoting. Ohanian (1991) state that source credibility consists of three elements. First element of Ohanian's (1991) theory is attractiveness, which is about whether a receiver perceives a source as likable (Sokolova & Kefi, 2020). The second element is trustworthiness and is about the source being viewed as honest and reliable (Serban, 2010). The third element is expertise and is about whether the source is perceived as someone who has knowledge about a certain topic and has authority in the field. There is another factor besides source credibility that influences purchase intention: parasocial interaction. Parasocial interaction is about the receivers' illusory social experiences with the influencer after one time exposure on social media (Yuan & Lou, 2020). In this relation the influencer is not aware of the receiver, which means that it is a one-sided relationship. Nevertheless, people think they have a relation with the influencer, which makes the influencer more persuasive (Bond, 2016). It is expected that source credibility and parasocial interaction have a positive effect on purchase intention (Audrezet et al., 2020; Bond, 2016; Lou & Kim, 2019; Yuan & Lou, 2020).

Previous research has not yet been focussing on the influencer's interactivity and emotionality in combination with source credibility, parasocial interaction and purchase intention. The aim of this research is to determine the effects of the different types of influencers in relation with source credibility, parasocial interaction and purchase intention. The target audience of this research consists of Dutch social media users. Based on previous literature and the aim of this research, the following research question is formulated:

To what extent do interactivity and emotionality of an eco-influencer Instagram posts, and the number of followers affect purchase intention, parasocial interaction and source credibility among Dutch social media users?

To answer this research question, a quantitative experiment will be conducted. In this experiment the interactivity and emotionality of the Instagram posts descriptions of an influencer and the number of followers on the profile of the influencer are manipulated to see which combination has the most positive effect on the purchase intention, source credibility and parasocial interaction. The following part of the study discusses the theoretical framework with hypotheses. After the framework, methods and instruments that are used in the experimental research are discussed. The final part of the study presents and discusses the findings of the study.

2 Theoretical framework

This chapter describes the theoretical concepts that are used in this study. The chapter starts with a description of eco-influencers and their effect on purchase intention. Then the advocate, referrer, loyalist, and socialiser influencers are conceptualized and divided over interactivity and emotionality. After that the relations between interactivity, emotionality, and the number of followers are discussed, followed by a discussion of parasocial interaction and source credibility. The chapter ends with an overview of the conceptual model.

2.1 Eco-influencers & purchase intention

An influencer is an "*independent third-party endorser who shape(s) audience attitudes*" (Freberg et al. 2011, p. 90). Social media influencers (*hereafter influencers)* use social media as a tool to shape these attitudes of their receivers. They use photos, videos, and blogs on social media to do this. In general, people are more inclined to follow suggestions of influencers because they are seen as more reliable, informed, and authoritative compared to advertisements of companies. It can therefore be interesting for companies to use these influencers in their marketing strategies, which is called influencer marketing (Ermiş, 2021). Influencer marketing is a sort of word-of-mouth communication via social media channels, such as Facebook or Instagram. Marketeers use influencers to lead word-of-mouth conversations into their desired direction (Woods, 2016). Most influencers are specialized in a subject, for example in food, travel, or fashion (Yalcin et al, 2020). With the growing public attention for sustainability also eco-influencers or sustainably influencers are getting more attention on social media. Sustainability can be defined as fulfilling needs without causing future generations to not have the ability to do so (San Cornelio et al., 2021). Eco-influencers encourage *"the idea of a sustainable lifestyle, based on that small daily actions may contribute to achieve global changes"* (San Cornelio et al., 2021, p1). Eco-influencers try with their content to educate and promote a sustainable lifestyle (Yalcin et al., 2020). They also want to entertain people with sustainable content.

For companies it can be interesting to use influencer marketing, because it can lead to higher sales. People are more likely to follow the advice of influencers compared to the advice of companies. Purchase intention is used to measure if influencer marketing leads to higher sales. It can be described as the willingness of people to buy (Lou & Kim, 2019). Ghosh (1990) as cited by Mirabi et al. (2015) states that purchase intention predicts actual purchasing behaviour. It is therefore widely used by marketeers as a key performance indicator.

2.2 Advocate, referrer, and loyalist

Non-academic literature distinguishes two categories with each three types of influencers (Gottbrecht, 2017). One is based on the number of followers of an influencer and consist of micro, meso and macro influencers (Boerman, 2020). These influencer types are discussed later in the chapter because these influencer types are used in this study to see if they have a positive effect with emotionality and interactivity on the purchase intention. This is because there are already studies which explore the effects of the number of followers on purchase intention, parasocial interaction and source credibility (Brewster & Lyu, 2020; Chapple & Cownie, 2017; Jin & Phua, 2014; Probstnerová, 2018). The other categorisation is based on the content and consists of the advocate, referrer, and loyalist influencers. Non-academic literature describes them as following: Advocates are influencers who only use products of one company (Brown, 2021). They promote this company and defend it from criticism. Referrers also promote only one company, but sometimes use other companies to compare products with. They also advise people to visit other internet pages, such as sites or online profiles. Loyalist influencers are people who supported the company from the beginning. They are very loyal to the company and use the products regularly. These three influencer types are not yet conceptualised by scientific literature and are only described in popular writing. The next paragraphs are a first attempt to scientifically conceptualize the advocate, referrer, and loyalist

influencers. These scientific conceptualisations are not taking each characteristic into account that the popular literature does. For example, the advocate influencer is not only promoting one company but different companies with different product types.

An advocate is someone who argues for or on behalf of someone else (Godden, 2012). It is *"one who argues for, defends, maintains, or recommends a cause or a proposal"* (Ad Hoc Committee on Advocacy, 1969, p2). Advocates do this by presenting facts, information, and proof (Lumpkins, 2018). An advocate influencer can therefore be seen as an influencer who defends and promotes brands, causes and products. They do that by responding to posts of others or by responding to others in their own posts. This influencer type is joining online conversations, they are therefore more likely to be visible on social media, which can contribute to a higher brand familiarity (Ha & Lam, 2017). Advocates have also more engagement with their followers because they are more inclined to discuss and respond to them.

A referrer shares knowledge. According to Law (2008) it can be described as *"social information that is evaluated, transmitted and propagated through social relations, and interactions" (p. 669).* Referral means also sending people to a website through links (Burby et al., 2007). Thus, a referrer influencer is a person who shares facts, knowledge, and information about products and services on social media. According to Gross and Wangenheim (2018) and Ismagilova et al. (2019), people who share the knowledge about products are perceived as more trustworthy and have more expertise. Referral can cause relations to be formed, therefore a higher level of parasocial interaction can be expected which will be explained later in this chapter (Law, 2008).

When someone is loyal, they tend to be very attached and committed to something (Khan, 2013). Loyalists tend to purchase products of the same company repeatedly and strongly recommend these products to others. They prefer certain companies and products. Loyalists can be biased, meaning that they do not even consider using, buying, or promoting other companies and products. A loyalist influencer can therefore be seen as an influencer who recommends products and brands to which they are highly committed. Compared to the advocate influencer, a loyalist influencer sends especially one-way promoting messages, while the advocate argues in a more interactive way. Loyalist influencers play with emotional components in their messages which advocate and referrer influencers do not do. These emotional messages are positive, attractive, and pleasing, which leads to a higher purchase intention (Ismagilova et al., 2019).

Still the categorisation of advocate, referrer and loyalist is problematic since they are very different from each other. It is therefore hard to say what characteristic has an influence. This thesis therefore proposes a new classification based on the foundation of the new academically conceptualized influencer types, which can be found in Table 2. This study will focus on two characteristics of these influencer types, instead of all the different characteristics. These two characteristics are the emotionality and interactivity of their messages. Emotionality is about whether influencers express feelings in their messages (Oraby et al., 2017; Zhang et al., 2014). Interactivity is about how the influencers communicate, which can be one-way or more interactive (Jenkins, 1998). These concepts will be further discussed in the following subchapters. It is expected that both interactivity and emotionality have an influence on purchase intention, source credibility and parasocial interaction, it is therefore expected that also different types of influencers have different effects on these variables (Buda & Zhang, 2000; Dietrich, 2013; Jun & Yi, 2020; Ott et al., 2016; Vendemia, 2017; Yuan & Lou, 2020). The distribution of the influencer types on variables interactivity and emotionality is as follows: the advocate and referrer are focussing on using more knowledge in their arguments, which are low in emotionality, compared to the loyalist who uses more feelings in their arguments which is high in emotionality. The advocate also focusses on dialogue and interaction, which is high in interactivity, while the referrer and loyalist communicate more one way and thus in a low interactive way by not inviting responses of the receivers.

Based on the new distribution, the fourth and last type of influencer for this paper is the socialiser. Table 2 visualizes the new distribution with this socialiser. This fourth type is not in popular literature and is first proposed in this thesis. This influencer uses high emotionality and high interactivity in their messages and is called the socialiser influencer. When people are social, they have interactions with people with the same interest, this causes engagement and support for the person Carr, 2006). According to Van Kleef (2009), people who socialise use emotion in conversations to influence people.

Table 2
Four types of influencers

	Low emotionality	High emotionality
Low interactivity	Referrer	Loyalist
High interactivity	Advocate	Socialiser

2.3 Interactivity

Interactivity is one of the characteristics of the new categorisation. Interactivity can be described as *"a reciprocal relationship between two or more people"* (Jenkins, 1998, p 190). This implies that there is a behaviour between sender and receiver. With interactivity the sender and receiver's roles can be reversed, meaning that a person has different communication roles in a conversation (Ott, 2016). An example of high interactivity is communication that allows responses, it is very fast and personal. One-way communication can be seen as low interactivity since the receiver cannot response. An influencer can have either a high or a low interactive communication style. Although social media makes it possible to have an interactive conversation, according to Lee and Dyke (2015) social media users mostly use social media to send one-way messages, thus they don't engage with their audience. These low interactivity messages have a more proper and authoritative tone of voice, compared to interactive communication which is more inviting for conversation with a less strict tone of voice (Zhang & Lin, 2015).

Ott et al. (2016) state that a higher level of interactivity increases the intention to purchase because people see those messages as more informative which contributes to the decision to buy. They also state that interactivity of a message can lead to stronger attitude towards the message, the products, and the brand. They found in their study that interactivity is important for attitude forming and purchase behaviour. Alalwan (2018) also found that message interactivity on social media has a positive effect on purchase intention. They explain that people find interactive messages more entertaining and helpful, because they are more than just receivers with those messages, they can respond. Interactive messages strongly motivate them to buy products. It can therefore be expected that using high interactive messages leads to a higher purchase intention compared to low interactive messages, which leads to the following hypothesis:

> H1: A high level of interactivity lead to a higher purchase intention compared to a low level of interactivity

2.4 Emotionality

The second characteristic of the new distinction is emotionality. Emotionality of a message is about feelings that an influencer expresses (Jong, 2021). These emotions can be expressed in the form of an argument (Hitchcock, 2007). In marketing there is a differentiation between rational and emotional arguments (Demirdöğen, 2010; Panda et al., 2013). Rational arguments are about the logic and facts of a message and are low in emotionality. Emotional arguments are about feelings that an influencer expresses and are high in emotionality. According to Wu and Wang (2011), different types of emotionality lead to different effects of persuasiveness. Influencers who use low emotionality *"May*

try to bolster their argument by providing statistics related to a position, giving historical or scientific background, or presenting specific examples or data." (Oraby et al., 2017, p1). Low emotionality is related to the concepts of honesty and impartiality. According to Asemah and Edegoh (2013), emotional appeals play in on the psychological and social needs of a person, while factual arguments play with functional, utilitarian, or practical needs of a person. High emotionality is about feelings and emotions. Emotional arguments *"attempt to stir up either positive emotions (e.g. love, pride, humor and joy) or negative ones (e.g. fear and guilt) that can motivate a particular purchase"* (Zhang et al., 2014, p2107). For example, negative emotions can lead to guilt which motivates people to buy, and happy emotions are linked to positive brand attitudes (Panda et al., 2013). In a sustainable context Dietrich (2013) argued that using negative emotions does not have a strong effect compared to when you use positive arguments on behaviour change. He states that people need motivation to change their behaviour, which can be done by showing people benefits of adopting a new sustainable behaviour.

Dietrich (2013) state that people can be more easily persuaded to buy sustainable products if a message contains emotional components. If people see something emotional, they are less likely to pay attention towards the product. He states that people "*may be more likely to purchase a product without consciously processing whether the product is something they need or will use*" (Dietrich, 2013, 25). These people are therefore relying on cues when they purchase environmental products and not on whether they need the product. It can therefore be expected that using high emotional messages leads to a higher purchase intention compared to low emotional messages, which leads to the following hypothesis:

> H2: A high level of emotionality lead to a higher purchase intention compared to a low level of emotionality

2.5 Relations between interactivity, emotionality, and number of followers

In this thesis the advocate, loyalist, referrer, and socialiser influencers consist of two characteristics, emotionality and interactivity. To determine the effects of these influencer types on purchase intention, it is important to explore if there is a relation between the variables. It can be expected that there is an interaction between emotionality and interactivity. The elaboration likelihood model is a model that explains how people change attitudes (Xiao et al., 2018). According to the model and theory people take a central route or a peripheral route when they are persuaded. The difference between those routes is that the peripheral route uses cues, such as emotions and the central route uses factual and logical arguments. High emotionality is associated with the peripheral route and low emotionality with the central route. Xiao et al. (2018) state that interactivity can be used as a heuristic cue, these cues are used to persuade people if they take the peripheral route. Since both interactivity and high emotionality are linked to the peripheral route, it can be expected that the positive effect of interactivity is the highest in combination with high emotionality, which leads to the following interaction hypothesis:

> H3: The positive effect of interactivity on purchase intention is strongest when the emotionality of a message is high.

The number of followers is added to this study to determine if they have a relation with interactivity and emotionality on purchase intention. In the literature the most used categorisation of influencers is based on the number of followers (Boerman, 2020). Different researchers have different division of categories. Researchers like Kuster (2017) made only a distinction between micro and macro, while others such as Janssen et al. (2021) and Berne-Manero and Marzo-Navarro (2020) state that there are nano, micro, meso and macro influencers. In this current study only the micro and meso influencers are researched because they are most used by marketers (Boerman, 2020; Kuster, 2017;

Mennes, et al., 2019; Tankovska, 2021). Micro influencers are influencers who have thousand to ten thousand followers. These types of influencers are everyday people who share their opinion on social media. They are known to have a lot of interaction and engagement with their followers. They also have a high level of authenticity (Klijnsma, 2020; Zietek, 2016). Meso influencers are influencers who have ten thousand to a hundred thousand followers on social media and the tend to be verified (Boerman, 2020; Mennes, et al., 2019). The nano influencer is excluded from the study because they are too small for practical use. Macro influencers are not common in the Netherlands and therefore also excluded.

Multiple studies state that the number of followers on social media is positively associated with higher levels of source credibility (Chapple & Cownie, 2017; Jin & Phua, 2014). The meso influencer has the highest number of followers, it can therefore be expected that they have a higher source credibility compared to the micro influencers. As a contradiction, a higher level of number of followers is negatively associated with purchase intention (Probstnerová, 2018). Conde (2019) as cited by Brewster and Lyu (2020) state that the higher the number of followers the lower the strength of parasocial interaction. The source credibility and parasocial interaction will be disused in the following paragraphs. The number of followers is in this research used to explore if it has an interaction effect with interactivity and emotionality, since this topic is already studied multiple times. There are no main hypotheses for this variable, only interaction hypotheses. The number of followers can be seen as a peripheral cue, just as emotionality and interactivity (De Veirman et al., 2017). It can be expected that the positive effect interactivity and emotionality is the highest in combination with meso influencers, because they have the highest number of followers. This leads to the following interaction hypothesis:

H4: The positive effect of interactivity on purchase intention is the strongest with a meso influencer compared to a micro influencer.

H5: The positive effect of emotionality on purchase intention is the strongest with a meso influencer compared to a micro influencer.

2.6 Parasocial interaction
People have the natural desire for social connections, not only in real-life but also on the internet (Bond, 2016). Yuan and Lou (2020) state that "*PSI refers to audiences' relationship perception during a one-time exposure to media production*" (p2). For example, this can happen after a person encounters someone in and on the media (Yılmazdoğan et al., 2021). People can then build a connection with a certain media figure, even though the media figure is not aware of the receiver's existence (Horton and Wohl, 1956). The same can happen when being exposed to a social media post of an (eco-)influencer (Yuan & Lou, 2020). People can take guidance of a person or see them as a friend or wanting to meet the person (Yılmazdoğan et al., 2021).

When people see an influencer on social media multiple times, they can create a pseudo relationship which is called parasocial relationship (PSR). Just like in parasocial interaction, in this relationship the sender is mostly unaware of the receiver's existence (Horton & Wohl, 1956). With the arrival of social media, it became possible to enter a two-sided pseudo relationship with influencers, because people can respond, like and comment on social media posts (Sokolova & Kefi, 2020). The differences between a parasocial relation and a social relationship is that the interaction between sender and receiver is not reciprocal and therefore different than relations between friends or family (Yuan & Lou, 2020). People follow recommendations of their friends and family because they see them as trustworthy (Hwang & Zhang, 2018). In a parasocial relationship they see the influencers as their friends and therefore trust them, which gives the influencers more persuasive power over their receivers. For an influencer it is interesting to form a parasocial relationship because it has a positive

influence on purchase intention (Bond, 2016). According to Yuan and Lou (2020) parasocial relationships are formed based on opinions of the receivers. These opinions can be influenced by characteristics of influencers. Previous research showed that different characteristics of influencers have different effects on parasocial relationship and purchase intention (Jin & Ryu, 2020). For example, Jin & Ryu (2020) studied the effect of the gender of an influencer and the type of photos they use on parasocial relationships. No research is done on interactivity and emotionality of an influencer caption on parasocial relationship. This will be studied in this research. The relatively short timeframe in which this study was conducted made it difficult to investigate parasocial relationships. Parasocial interaction was therefore studied instead of parasocial relationship because interaction is measurable in one contact moment, while the relationships need more time to form.

Buda & Zhang (2000) state that interactivity of the messages of influencers leads to a higher emotional bond with their receivers. Yuan and Lou (2020) add that interactivity shapes the relations between sender and receivers. According to Thorson and Rodgers (2006) a higher level of interactivity has a positive influence on parasocial interaction, because responsiveness is strengthening parasocial interaction (Reinikainen, 2020). The more interactivity, the more people tend to form a relation with the influencer. Seeing other people have a conversation can also increase parasocial interaction. It can therefore be expected that using high interactivity in a message lead to a higher level of parasocial interaction, which leads to the following hypothesis:

H6: The impact of interactivity on purchase intention is mediated by parasocial interaction

Yuan and Lou (2020) state that emotions are important for parasocial relationship because these relationships are about emotional connections. Rubin et al. (2003) adds that the strength of parasocial interaction can be influenced by the emotions that influencer sends. No further research about the effects of emotionality on parasocial relationship was conducted, but more research is done about emotions in normal relationships. De Rivera (1984) states that emotions can strengthen the relationship. Gaelic et al. (1985) states that in relationships people talk more about emotional topics, compared to people who don't have a relationship. They also found that emotions are related to closeness of relationships. The level of emotions that a person uses is positively related to the strength and closeness of the relationship. It can be expected that using feelings in messages lead to a higher parasocial interaction, which leads to the following hypothesis:

H7: The impact of emotionality on purchase intention is mediated by parasocial interaction.

2.7 Source credibility
Source credibility can be described as the beneficial features of a sender that influence whether the receiver favours the message (Ohanian, 1990). Lim et al. (2017) state that "*Information presented by a credible source (e.g. social media influencers) can affect consumers' beliefs, opinions, attitudes and behaviours*" (p21). Influencers who have a high level of source credibility are more persuasive compared to influencers who are not seen as credible (Yuan & Lou, 2020; Umeogu, 2012; Serban, 2010). This persuasiveness leads to a higher purchase intention according to Lim et al. (2017), because receivers are more likely to accept a message's arguments of a credible person. When the level of source credibility is low, people tend to reject the message's arguments, which results in a lower persuasiveness of the message (Buda & Zhang, 2000).

Ohanian (1990) developed a model to measure source credibility, which consists of the following factors: trustworthiness, expertise, and attractiveness. Trustworthiness is the reliability and honesty of the source (Serban, 2010; Yuan & Lou, 2020). When a source is perceived as trustworthy the psychological reactance can decrease, which leads to an increase of persuasiveness of a source (Briñol & Petty, 2009). It is for trustworthiness also important that receivers get the feeling that a

source cares about their receivers. Expertise is the knowledge and authority that a source has. According to Sokolova and Kefi (2020) it is about the position in society that the source has. Expertise is also about the qualification of a source in a certain subject or field (Yuan & Lou, 2020). Expertise can be gained by using a certain product multiple times, so that the source has experience with the product and therefore becomes an expert (Rahmi et al., 2017). A source gain expertise on social media by providing, explaining, justifying information that they give (Klijnsma, 2020). Attractiveness also plays an important role within source credibility besides expertise and trustworthiness (Yuan & Lou, 2020). Attractiveness can be about looks and identity, but it can also be about the way someone lives. Attractiveness can further be described as the similarity and familiarity a source has with their receivers, because the more similarity the more easily a receiver is persuaded (Serban, 2010; Sokolova & Kefi, 2020). Lastly, attractiveness can be described as the likeability of a source. The characteristics of an influencer can influence the perceived credibility (Yuan and Lou, 2020).

Jun and Yi (2020) state that the more interactive the communication of an influencer is the more the influencer is seen as credible and trustworthy. Seeing interaction between an influencer and a receiver can be an important source of information to determine if an influencer is credible. Credibility can be seen as a peripheral cue according to Buda and Zhang (2000). They state that when a participant is not involved, thus taking the peripheral route in the elaboration likelihood, that people have more negative response towards a low credible communicator, compared to a high credible communicator. Meaning that the message is less persuasive which can impact purchase intention. It can therefore be expected that using higher level of interactivity in messages lead to a higher level of source credibility, which leads to the following hypothesis:

H8: The impact of interactivity on purchase intention is mediated by [A)] trustworthiness, [B)] attractiveness, and [C)] expertise

Vendemia (2017) state that messages who express feelings leads to a lower source credibility. He explains that those messages are less convincing compared to messages that do not express feelings because the arguments are less strong. Voskaitė's (2020) study found out that low emotional messages lead to higher source credibility, since facts are related to trustworthiness and expertise. Kapoor et al. (2020) states that more informative messages are more credible. Since those messages have product related information, which is more credible than messages with emotional components. He also states that factualness and accurateness are both part of credibility. Kapoor et al. (2021) found in a sustainable context also that people tend to trust unbiased and rational people more. It can therefore be expected that using low emotional messages lead to a higher level of source credibility, which leads to the following hypothesis:

H9: The impact of emotionality on purchase intention is mediated by [A)] trustworthiness, [B)] attractiveness, and [C)] expertise.

Previous research investigated whether source credibility influences parasocial interaction (Yılmazdoğan et al., 2021; Yuan & Lou, 2020). Results showed that not all components of source credibility influence parasocial interaction with an influencer. Yılmazdoğan et al. (2021) state that attractiveness does not influence parasocial interaction and purchase intention in a social media situation. He said that it is because people tend to follow only attractive people on social media. Yuan and Lou (2020) also studied the effect of source credibility on parasocial interaction but found opposite results. They state that only the attractiveness relates to parasocial interaction while trustworthiness and expertise did not relate to it. The results are different, but both studies have in common that not all variables of source credibility influence parasocial interaction. Instead of researching a double mediation, this research uses source credibility and parasocial interaction both as separate mediators, because both are expected to influence purchase intention (Hwang & Zhang, 2018; Lou & Kim, 2019).

2.8 Conceptual model

Figure 1 shows the conceptual model of this research with the expected relationships between the variables which were discussed in the previous chapters.
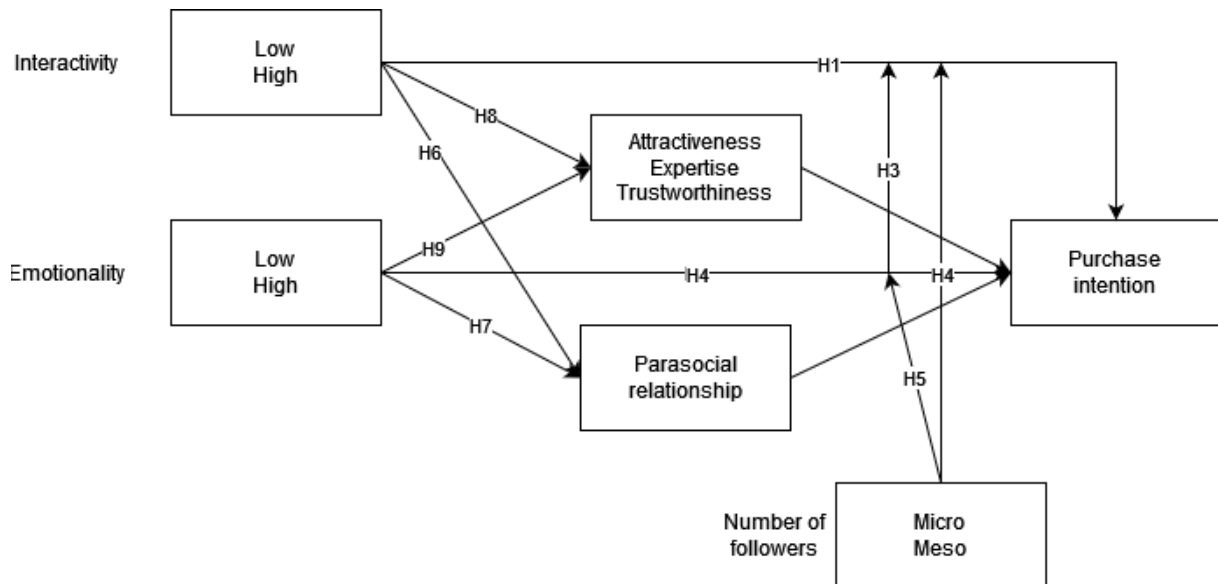

Figure 1 Conceptual Framework

3 Methods

This chapter is about the method of the study. The first section consists of the research design. The stimulus material can be found in section two. The third section describes the procedure of the main study. Information about the participants can be found in section four. The last sections discuss the manipulation checks and measurements.

3.1 Research design

The effects of interactivity, emotionality, and number of followers on purchase intention, source credibility, and parasocial interaction, were explored in a quantitative study in the form of an online experiment. The conceptual model of this research leads to a 2 (low vs high interactivity) x 2 (low vs high emotionality) x 2 (micro vs meso influencer) between-subjects design. Table 3 visualizes all separate conditions of this experimental study.

Table 3
Experimental conditions

		Low emotionality	High emotionality
Low interactivity	**Micro influencer**	Condition 1	Condition 5
	Meso influencer	Condition 2	Condition 6
High interactivity	**Micro influencer**	Condition 3	Condition 7
	Meso influencer	Condition 4	Condition 8

3.2 Stimulus materials

The stimulus materials consisted of two parts, see Appendix B. The first part is the Instagram profile of an influencer in which the difference between micro and meso influencers were shown. The second part consisted of multiple Instagram posts of the influencer which indicated the difference between low and high interactivity and emotionality. Instagram was used because many companies operate on this platform to reach their audience through influencers (Latiff & Safiee, 2015). All stimulus materials and statements were tested in the pre-test before the main study was conducted. The pre-test was conducted in interview form because the method made it possible to get feedback about the stimulus materials. The interviews were conducted on Microsoft teams due to Covid-19 related issues. In total five people participated in the pre-test: two men and three women. During the pre-test, participants were shown different messages with different levels of interactivity and emotionality and were asked to respond to questions such as "*Which message do you think is the most interactive?*", "*Which of the following sentences is the most emotional?*", *Which of the following sentences is the least emotional?*" and "*Do you think that this Instagram profile is realistic?*". Different improvements were suggested during the pre-test. First, during the pre-test four posts were presented, but one post did not fit in with the rest of the posts and was therefore removed from the study. Second, the pre-test showed that the descriptions of the posts needed emojis and hashtags to make them more real. Third, the interactivity questions needed to be open questions because that invites more responses. Last, the language in the bio had to be more consistent, therefore more Dutch language was added.

3.2.1 Instagram profile

To indicate the difference between a micro and meso influencers, existing manipulation techniques were used. These were the manipulation of the number of followers and whether the influencer is verified (Boerman, 2020). These manipulations were shown in a profile of an influencer because the profile shows the number of followers, which is something that an Instagram post does not show. A second reason why the profile was shown is that it indicates whether the influencer is verified. To really highlight the difference between the micro and meso influencers, the number of followers for

the micro influencer was 1.265 and for the meso influencer 89.900, because those are numbers that are far apart from each other but fall within the limits of the categories. In addition to the manipulation of number of followers, the verification logo was shown on the meso influencers profile, to emphasise the difference between both profiles.

The stimulus material began by showing an Instagram profile of a fictional influencer. Instagram profiles of both Dutch and English sustainable influencers had something related to sustainability in their name, therefore the name of the fictional influencer was also based on that. The name was as followed: @the.sustainableway. The fictional influencer was a woman because according to Ermiş (2021) female influencers are perceived more credible and attractive compared to men. The name of the influencer, Lisa Aartsen, was conceived by a name generator (Campbell, n.d.), which had the option for a general Dutch name. The influencer looked like she was between the 18 and 35 years old. This age category was chosen because it matches the age of average Dutch Instagram-users, so those people can relate to it (CBS, 2020). The profile photo was from the stock photo site Pebbels (n.d.), to prevent participants from recognizing any existing influencer.

The bio of the influencer was based on existing influencers. For the bio sentences that were related to the theme of the eco-influencer were used. These were the two sentences: "*Sustainability and well-being for everyone. Living with low environmental impact.*". Plant emojis were added to the bio to express the tone of the message. Most influencers show a link to their website in their bio since they cannot share a link in their messages, therefore the profile showed a link to a fictional site with a call to action. Both the micro and the meso influencer had 403 messages. Veirman et al. (2017) state, as a rule of thumb, that influencers on social media need to have more followers than people they follow. The number of people that the influencer follows was therefore in this research 724. To conclude the first part of the manipulations, other than the difference between the number of followers and the verified logo, there was no difference between the Instagram profiles for all the conditions. Figure 2 shows the micro influencer profile on the left and on the right the meso influencer profile.
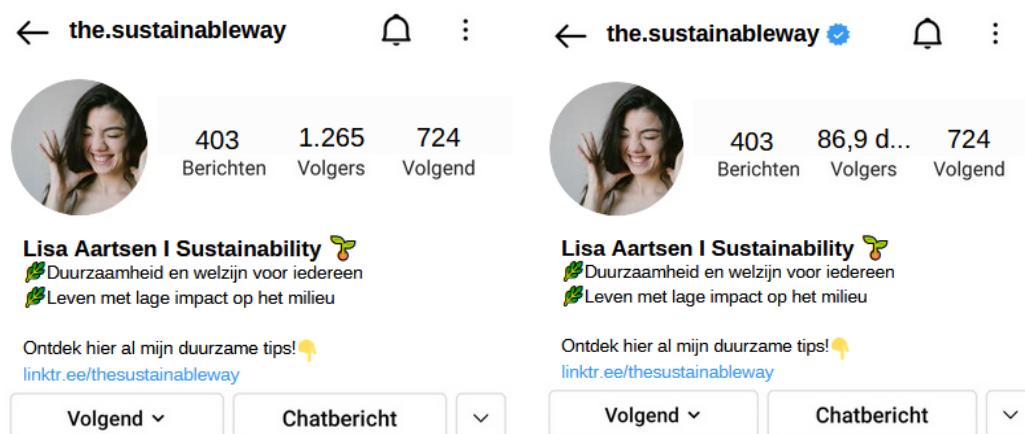

Figure 2 The final micro and meso profile

3.2.2 Instagram posts

For the manipulation of the interactivity and emotionality Instagram posts were shown. The posts descriptions consisted of a standard sentence which was not inviting for conversation and only shows information about the products. This standard sentence was low in interactivity and low in emotionality. For the manipulation of interactivity, a sentence in the form of a question that invites conversation was added. For the manipulation of the emotionality an emotional sentence was added to the standard informative sentence. The manipulation was set up in this way so that every message had the same information value and therefore only the manipulation is different for each message in

the different conditions. The multiple Instagram posts were shown after the profile in the experiment. Multiple messages were shown to increase the exposure that the participant has of the eco-influencer. The three posts were inspired by sustainable Instagram influencers such as @sustainable.collective, @sustainabledish and @sweet.sustainability. Each posts showed a different product to see how the participants respond on the influencer. The manipulations took place below the picture in the message, therefore neutral-coloured photos were used to not distract the respondent and to keep their focus on the text. The posts showed two types of photos. Two of them showed the face of the influencer, and the other one did not show it.

The first message of the three was a promotional post about a sustainable candle. The fictional name for the candles was EcoKaarsen which translates to eco-candles in English. The picture showed the influencer holding the candle. The standard was "*Do you already know the sustainable candles from EcoKaarsen? They are plastic free and animal testing free".* For the manipulation of high emotionality, the following sentence was added to the standard sentence *"They provide a wonderful atmosphere at your home!".* For the manipulation of high interactivity, the following question was added to the standard sentence "*What is your favourite candle?"*. The following hashtags were used because they connected to the content of the message: #candles #sustainability and #ecokaarsen. Emojis that match the message content were added, these were the leaf of a plant and candle emojis. Figure 3 shows on the left an example of the candle message with low interactivity and low interaction and on the right an example of the candle message with high interactivity and high emotionality.

Figure 3 Two examples of the stimulus material

The second message was an educational post about using plants as sustainable decoration. The picture showed an influencer potting a plant. The standard sentence was "*Using plants in your home is a great way to remove toxins from the air we breathe*". For the manipulation of high emotionality, the following sentence was added to the standard sentence "*Using plants in your home is a great way to live healthier, greener and happier*". For the manipulation of high interactivity, the following question was added to the standard sentence "*What plants do you have at home?*". The hashtags #plants and #sustainability in English as well as Dutch were used because they are general, and they matched the content of the message. An emoji of a plant leaf was used in the message to indicate sustainability.

The third message was a promotional post about bamboo toothbrushes from the fictional company named EcoBad, which translates to EcoBath in English. The picture showed the influencer holding the toothbrush. The standard sentence was "*Nearly 2 billion plastic toothbrushes enter the oceans every year. Unlike other toothbrushes, the EcoBad bamboo toothbrush is vegan, BPA-free and compostable*". For the manipulation of high emotionality, the following sentence was added to the standard sentence "*EcoBad's bamboo toothbrushes help to preserve this beautiful nature with all its animals*". For the manipulation of high interactivity, the following question was added to the standard sentence "*Do you already use bamboo products in your bathroom?*". The emoji of a toothbrush and the hashtags #bamboo #sustainable #toothbrush #ecobath were added to the messages because they match the messages content.

For the likes section, a name generator was used to give names that were shown before the number of likes (Campbell, n.d.). The number of likes for the three posts were between 587 and 621. The number of comments and the time of the posts were removed from the messages because they do not add value to the research. Table 4 shows for all the conditions the different manipulation sentences.

Table 4

Manipulation sentences

Low interactivity and low emotionality	High interactivity and low emotionality
the.sustainableway Ken jij de duurzame kaarsen van EcoKaarsen al? Ze zijn plastic- en dierproefvrij 🕯️🌿 #kaarsen #duurzaam #ecokaarsen	**the.sustainableway** Ken jij de duurzame kaarsen van EcoKaarsen al? Ze zijn plastic- en dierproefvrij 🕯️🌿 Wat is jouw favoriete kaars? #kaarsen #duurzaam #ecokaarsen
the.sustainableway Het gebruik van planten in je huis is een goede manier om gifstoffen te verwijderen uit de lucht die we inademen 🌿 #planten #duurzaam #sustainability	**the.sustainableway** Het gebruik van planten in je huis is een goede manier om gifstoffen te verwijderen uit de lucht die we inademen 🌿 Welke planten heb jij in huis? #planten #duurzaam #sustainability
the.sustainableway Elk jaar komen er bijna 2 miljard plastic tandenborstels in de oceanen. Anders dan andere tandenborstels is de bamboe tandenborstel van EcoBad vegan, bpa-vrij en composterbaar 🪥🌱 #bamboe #duurzaam #tandenborstels #ecobad	**the.sustainableway** Elk jaar komen er bijna 2 miljard plastic tandenborstels in de oceanen. Anders dan andere tandenborstels is de bamboe tandenborstel van EcoBad vegan, bpa-vrij en composterbaar 🪥🌱 Gebruik jij al bamboe producten in je badkamer? #bamboe #duurzaam #tandenborstels #ecobad

Low interactivity and high emotionality	High interactivity and high emotionality
the.sustainableway *Ken jij de duurzame kaarsen van EcoKaarsen al? Ze zijn plastic- en dierproefvrij en ze zorgen voor een heerlijke sfeer bij jou thuis* 🕯️🌿 #kaarsen #duurzaam #ecokaarsen	**the.sustainableway** *Ken jij de duurzame kaarsen van EcoKaarsen al? Ze zijn plastic- en dierproefvrij en ze zorgen voor een heerlijke sfeer bij jou thuis* 🕯️🌿 Wat is jouw favoriete kaars? #kaarsen #duurzaam #ecokaarsen
the.sustainableway *Het gebruik van planten in je huis is een goede manier om gifstoffen te verwijderen uit de lucht die we inademen, dit maakt je leven gezonder, groener en gelukkiger* 🌿 #planten #duurzaam #sustainability	**the.sustainableway** *Het gebruik van planten in je huis is een goede manier om gifstoffen te verwijderen uit de lucht die we inademen, dit maakt je leven gezonder, groener en gelukkiger* 🌿 Welke planten heb jij in huis? #planten #duurzaam #sustainability
the.sustainableway *Elk jaar komen er bijna 2 miljard plastic tandenborstels in de oceanen. Anders dan andere tandenborstels is de bamboe tandenborstel van EcoBad vegan, bpa-vrij en composterbaar, waardoor ze zorgen behoud van deze mooie natuur met al haar dieren* 🌳🪥 #bamboe #duurzaam #tandenborstels #ecobad	**the.sustainableway** *Elk jaar komen er bijna 2 miljard plastic tandenborstels in de oceanen. Anders dan andere tandenborstels is de bamboe tandenborstel van EcoBad vegan, bpa-vrij en composterbaar, waardoor ze zorgen behoud van deze mooie natuur met al haar dieren* 🌳🪥 Gebruik jij al bamboe producten in je badkamer? #bamboe #duurzaam #tandenborstels #ecobad

3.3 Procedure

The experiment consisted of an online questionnaire via Qualtrics, which can be found in Appendix A. Since all participants were from the Netherlands, the questions were asked in Dutch. The questionnaire started with a welcome word in which the purpose of the study was explained. The informed consent was also presented to the participants on the first page of the questionnaire. The first question of the questionnaire was a filter question about whether the participant used Instagram. If they did not use Instagram, they were excluded from the questionnaire. If they had Instagram, then questions about the participant demographics and a control variable question about their attitude towards green products were asked next. After that, the respondents were randomly distributed over one of the eight conditions. Each condition consisted of a profile of the influencer and three Instagram posts. After that, statements were presented that measured the effects of interactivity, emotionality, and number of followers on purchase intention, source credibility, parasocial interaction. This was followed by the manipulation check questions and the remaining control variable questions. On the next page people could leave questions and comments about the study. The questionnaire ended with a message that thanked the participant for participating in this research and gave them the possibility to contact the researcher if they had any inquiries.

3.4 Participants

The target audience of this study consisted of social media users that are 18 years and older because of ethical reasons. Participants were approached via a convenience and snowball sampling, which ensured that a large group of participants were involved in the study. Only Dutch participants were collected, because the social environment of the researcher consisted mostly of Dutch speaking people. In total 355 participants answered the questionnaire, but only 245 answered it completely. The 110 participants who did not answer every question were removed from further analysis. One participant did not meet the inclusion criteria of being older than 18 years. This participant was also removed from further analysis. This leaves the total number of usable responses for this research at

244. These participants were randomly distributed over the eight different conditions in the experiment.

All participants were between 18 and 68 years old, and 76.2% of the participants were between 19 and 30 year old. The mean age of these participants was 28.08 years (SD=11.17). The ANOVA analysis showed that the eight groups did not have a significant difference in distribution of age $F_{(7, 236)}$= 0.23, p = .978. Of all the participants, 32% were male, and 67.2% were female. Two people choose to not share their gender. For the educational level, no participants listed that they had "*no education or incomplete primary education*", "*elementary school*" or "*other*". In total 14.3% of the participants had secondary educational level, 26.2% of the participants had a secondary vocational education, 40.6% of the participants had a higher professional education, and 18.9% of the participants have a university education. The chi-square showed that there was no difference in distribution of gender X^2(14, 244) = 10.0, p = .762), and education level X^2(21, 224) = 12.68, p = .920 between the eight experimental conditions.

In addition to the demographics of the participants, three questions were asked about what type of Instagram user the participants are. The first question was about whether they follow influencers on Instagram. In total 38.5% said that they did not follow an influencer on Instagram, 2.9% said that they did not know whether they follow an influencer, and 58.6% said that they did follow an influencer on Instagram. The chi-square showed that these answers were equally distributed over the different conditions X^2(14, 244)= 19.26, p = .155. Participants were also asked how often they interact with influencers on Instagram. In total 32.8% of the participants said that they never have contact with influencers on Instagram and 24.2% has daily contact with an influencer. The other 43.0% of the participants said that they have between the 6 times in a week and once in a half year contact with an influencer. The chi-square showed that there was no significant difference in the distribution across the conditions X^2(42, 244)= 24.57, p = .985. Lastly, the participants were asked how often they bought something that an influencer recommended. In total 54.5% of the participants said that they never bought anything that was recommended by an influencer and 29.1% said that they did buy something that an influencer recommended less than once every six months. The other 14.3% of the participants said that they did buy something that an influencer recommended between once a month and once every six months and 16.3% said that they buy between once every six months and four times a week. The chi-square showed that this was equally distributed over the eight different groups X^2(28, 244)= 22.84, p = .741.

A minimum duration of ten seconds was set to make sure that the participants could not rushed through the experiment without carefully reading looking at the stimuli material. The time that participants viewed the stimuli was between the 10.4 seconds and 6288.5 seconds with a mean of 62.12 (SD=25.7).

3.5 Manipulation check
To check whether the participant saw what they were supposed to see, 5 manipulation check questions were asked at the end of the experiment. All questions had the answering options: yes, no idea and no. For the manipulation of emotionality people were asked if they thought that the messages were emotional. Chi-square showed that that there was no significant difference between low emotionality and high emotionality, X^2 (2, 244) = 1.08, p=.583. This means that both manipulations were seen as emotional, even though the low emotional manipulation should not be emotional. The emotionality results should therefore be interpreted with caution. The means and percentages can be found in Table 5. For the manipulation of emotionality, it was also asked if participants thought that the messages were factual. Chi-square showed that that there was no significant difference between low emotionality and high emotionality, X^2 (2, 244) = 0.23, p = .889. It

was expected that this result was not significant, because both messages were intended to be factual.

Table 5

Manipulation check percentages emotionality

	Emotionality		
	Low	**High**	**Total**
The messages are emotional			
No	59 (51.8%)	64 (49.2%)	123 (50.4%)
No idea	29 (25.4%)	29 (22.3%)	58 (23.8%)
Yes	26 (22.8%)	37 (28.5%)	63 (25.8%)
Total	114 (100%)	130 (100%)	244 (100%)

For the manipulation of interaction only one question was asked. This was if the influencer's posts were seeking interaction. The chi-square showed that there was a significant difference between low interaction and high interaction, X^2 (2, 244) = 9.41, p = .009. This indicates that the people who saw interactive messages also answered at the end of the experiment that they saw interactive messages and people who saw the low interactive messages indicated that they saw low interactive messages.

The manipulation of the number of followers consisted of two questions. The first question was about whether the influencer had many followers. The chi-square test showed that there was a difference significance between the micro and meso influencers, X^2 (2, 244) = 49.33, p <.001. The second question asked if the influencer was verified. With the second question it was explained that verified meant that the influencer had a blue checkmark. The chi-square showed that there was a significant difference between micro and meso influencers, X^2 (2, 244) = 34.40, p <.001. These results indicate that people who saw a meso influencer with a verification checkmark, also indicated at the end of the experiment that they saw the meso influencer, and people who saw the micro influencer without the checkmark said that they saw a micro influencer.

3.6 Measurements

The constructs of the dependent variables were measured by a seven-point Likert scale (1932), which reaches from strongly agree (1) to strongly disagree (7). To measure purchase intention, two items of the scale of Lou and Kim (2019) and four items of the scale of Dwidienawati (2020) were used. An example item is: *"I will probably buy certain products".*

Parasocial interaction was measured with the parasocial relationship scale of Yuan and Lou (2020). The original scale consisted of 13 items, but only the seven items that referred to in-the-moment appeals were used, because for the other items were only measurable if the participants already knew the influencer. An example of one of the statements is: *"The influencer makes me feel comfortable, as if I am with a friend".*

The scale of Ohanian (1990) was used to measure source credibility. This scale consists of three factors with in total 14 items. An example of one statement for trustworthiness is: "*The influencer is reliable".* An example of one of the statements for attractiveness is: *"The influencer is beautiful".* An example of one of the statements for expertise is: *"The influencer is experienced"*.

According to Mostafa (2006) attitudes influence whether people buy green products, therefore attitude was measured before the experimental material was shown. Attitude towards green products was measured with the items that were derived from the scale of Mostafa (2006). This scale consists of two items and one example of the statements is: "*purchasing green products is a good*

idea". Two newly formulated items were added to the scale. An example of these newly formulated items is: "*I am willing to pay more for a green product*". This control variable used the same seven-point Likert-scale from Likert (1932) than the other dependent variables did.

The participants were also asked if they follow influencers on Instagram. They could choose between the answering options: "*no", "yes*" or "*no idea"*. After that it was asked how often they encounter influencers on Instagram and how often they buy something that an influencer recommended. The participants could choose for both these questions between answers that ranged from "*never*" to "*daily*". For all the items backtranslations were done to see if the statements were correctly translated from English to Dutch.

To determine whether the constructs measures what they are intended to measure, a factor analysis with varimax rotation was executed. Almost all the items loaded into the construct they were intended to measure, except 4 items of parasocial interaction. The items "*The influencer makes me feel comfortable, as if I am with a friend*", "*I see the influencer as a natural, down-to-earth person*", "*The influencer seems to understand the kinds of thing I want to know"*, and "*If I see a story about the influencer in other places, I will read it"* were removed from analysis. This leaves 27 statements spread over six components with sufficient eigenvalues of above the 1 and an explained variance of 75.2%. The factor analysis with varimax rotation can be found in Table 7. The Cronbach's Alpha was measured to determine the reliability, see Table 7. All values are above the .70 which means that there is a sufficient internal consistency.

Table 7

Factor analysis - (rotated component matrix)

Statements	Factor					
	1	**2**	**3**	**4**	**5**	**6**
Att1 Purchasing green products is a good idea'	.85					
Att2 I have a favourable attitude towards purchasing a green version of a product	.89					
Att3 I am willing to pay more for a green product	.79					
Att4 If I must choose between a green and non-green product, choose a green product	.80					
PuI2 I will probably buy the products she promoted if I happen to need them		.71				
PuI3 If I'm going to buy sustainable products, I'll consider the products		.68				
PuI4 My willingness to buy the products is high		.84				
PuI5 There is a good chance that I will consider the products		.83				
PuI6There is a good chance that I will buy the products		.84				
Exp1 The influencer is expert			.76			
Exp2 The influencer is experienced			.69			
Exp3 The influencer is knowledgeable			.69			
Exp4 The influencer is qualified			.86			
Exp5 The influencer is skilled			.86			
Atr1 The influencer is attractive				.80		
Atr2 The influencer is classy				.76		
Atr3 The influencer is beautiful				.83		
Atr4 The influencer is elegant				.80		
Atr5 The influencer is sexy				.71		
Tru1 The influencer is dependable					.75	
Tru2 The influencer is honest					.76	
Tru3 The influencer is sincere					.76	
Tru4 The influencer is trustworthy					.69	
Par5 I would like to meet the influencer in person.						.76
Par6 If the influencer lived in my neighbourhood, we would be friends.						.84
Par7 The influencer would fit in well with my group of friends.						.80
Explained variance:	11.5%	16.7%	14.2%	13.1%	10.9%	8.8%
Eigenvalue:	1.79	10.30	3.42	2.27	1.44	1.10
Cronbach alpha:	.88	.91	.90	.88	.92	.85

Note: Values below .55 were supressed

4 Results

This chapter is about the results of the research. First an MANOVA and ANOVA were preformed to test if the manipulations had an effect on purchase intention, source credibility and parasocial interaction. After that, mediation analysis were performed, followed by additional analyses. The chapter ends with an overview of the results of the tested hypothesis.

4.1 Effects on purchase intention, source credibility and parasocial interaction

To test if there is an effect of interactivity, emotionality, and number of followers on purchase intention, source credibility and parasocial interaction a multivariate analysis of variance (MANOVA) was performed. The interaction effects between interactivity, emotionality and number of followers were also tested in the MANOVA, the results can be found in Table 8.

Table 8
Results of the MANOVA

Multivariate Tests	Wilks' Lambda	df	*F-value*	*Sig.*
Wilks' Lambda				
Interactivity	0.97	232	1.45	.206
Emotionality	0.97	232	1.39	.229
Number of followers	0.99	232	0.69	.633
Interactivity * Emotionality	0.97	232	1.62	.156
Interactivity * Number of followers	0.96	232	0.23	.950
Number of followers * Emotionality	1.00	232	0.14	.983

The MANOVA showed that the manipulation of interactivity had no significant effects, $F(5, 232) = 1.45$, $p = .206$. Even though there are differences in the means between low and high interactivity, there are no significant differences, therefore hypothesis 1 is rejected. The interactivity of an influencer's posts did not have an influence. Table 9 shows an overview of the means and the standard deviation for the manipulation of interactivity.

Table 9
Mean and Standard Deviation Values for Main Effect of Interactivity

	Interactivity	
	Low	**High**
Dependent variables		
Attractiveness [a]	4.79 (0.86)	4.69 (1,12)
Expertise [a]	4.01 (1.01)	3.76 (1.11)
Trustworthiness [a]	4.36 (1.11)	4.22 (1.10)
Parasocial interaction [a]	3.25 (1.25)	2.85 (1.28)
Purchase intention [a]	4.12 (1.29)	4.05 (1.13)

Note: Standard deviation in brackets

The MANOVA showed that the manipulation of emotionality had no significant effects, $F(5, 232) = 1.39$, $p = .229$. Even though there are differences in the means between low and high emotionality, there are no significant differences, therefore hypothesis 2 is rejected. The emotionality of an influencer's posts did not have an influence. Table 10 shows an overview of the observed mean and standard deviations values for the manipulation of emotionality.

Table 10

Mean and Standard Deviation Values for Main Effect of Emotionality

	Emotionality	
	Low	**High**
Dependent variables		
Attractiveness [a)]	4.61 (1.04)	4.85 (0.91)
Expertise [a)]	3.83 (1.06)	3.92 (1.07)
Trustworthiness [a)]	4.17 (1.13)	4.39 (1.08)
Parasocial interaction [a)]	2.86 (1.27)	3.20 (1.27)
Purchase intention [a)]	3.95 (1.31)	4.20 (1.26)

Note: Standard deviation in brackets

The MANOVA analysis, in Table 8, showed that there are no significant interaction effects between the independent variables' interactivity and emotionality $F_{(5,232)} = 1.62$, $p = .156$, and interactivity and number of followers $F_{(5, 232)} = 0.23$, $p = .950$, and number of followers and emotionality $F_{(5, 232)} = 0.14$, $p = .983$, which means that hypotheses 3, 4 and 5 are not supported. These results showed that interactivity and emotionality of influencers' posts and the number of followers of an influencer do not cause differences in people's willingness to buy eco products, on how they see influencers and on the strength of parasocial interaction.

4.2 Mediation

Although the MANOVA did not show any effects of the manipulations on the dependent variables. The analysis of variance showed that interactivity did have a positive significant effect on parasocial interaction, $F_{(232)} = 9.70$, $p = .014$. Emotionality had also a positive significant effect on parasocial interaction, $F_{(232)} = 4.06$, $p = .045$. As a result, additional analysis will be performed to test if the effect of emotionality and interactivity on purchase intention is mediated by parasocial interaction. To determine the mediation effects the Baron and Kenny (1986) approach of regression was used.

4.2.1 The mediating effect of interactivity on parasocial interaction to purchase intention

The results showed that the path from interactivity to parasocial interaction was significant ($β = -.16$, $SE = .16$, $p = .014$). A significant effect of parasocial interaction on purchase intention was also found ($β = .40$, $SE = .06$, $p < .001$). The mediation analysis did not show a significant direct effect of interactivity on purchase intention ($p = .666$). No significant total effect of interactivity on purchase intention when parasocial interaction was taken into account was found ($p = .548$). Only an indirect effect of interactivity is found. There is no mediation effect of interactivity on purchase intention through parasocial interaction, therefore hypothesis 6 is rejected. Table 11 shows an overview of the results of the F tests. Figure 4 shows the mediation analysis of interactivity on parasocial interaction to purchase intention.

Table 11

Model statistics of mediating effect of interactivity on parasocial interaction to purchase intention

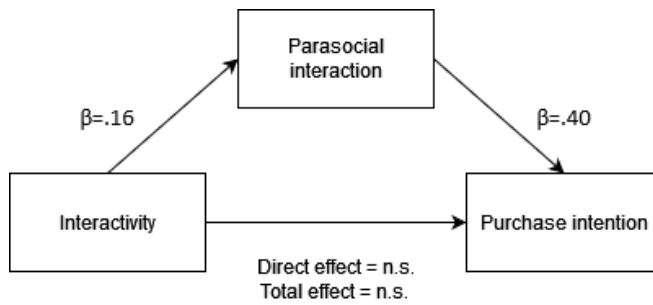|	**F**	**df**	**p**	**R^2**
Interactivity on parasocial interaction	6.07	1,242	.014	.02
Parasocial interaction on purchase intention	23.40	2,241	<.001	.16
Direct effect interactivity on purchase intention	0.19	1,242	.666	n.s.
Total effect interactivity on purchase intention	0.19	2,241	.548	n.s.

Figure 4: Mediation analysis of interactivity

4.2.2 The mediating effect of emotionality on parasocial interaction to purchase

The results showed that the path from emotionality to parasocial interaction was significant, (β = .13, *SE* = .16, *p* = .039). A significant effect of parasocial interaction on purchase intention was also found (β = .40, *SE* = .06, *p* <.001). However, the mediation analysis did not show a significant direct effect of emotionality on purchase intention (*p* = .132). No significant total effect of emotionality on purchase intention when parasocial interaction was taken into account was found (*p* = .455). Only an indirect effect of emotionality is found. No mediation effect of emotionality on purchase intention through parasocial interaction was found, therefore hypothesis 7 is rejected. Table 12 shows an overview of the results of the *F* tests. Figure 5 shows the mediation analysis of emotionality on parasocial interaction to purchase intention.

Table 12
Model statistics of mediating effect of emotionality on parasocial interaction to purchase intention

	F	df	*p*	R^2
Emotionality on parasocial interaction	4.30	1,242	.039	.01
Parasocial interaction on purchase intention	23.51	2,241	<.001	.16
Direct effect emotionality on purchase intention	2.29	1,242	.132	n.s.
Total effect emotionality on purchase intention	2.29	2,241	.455	n.s.
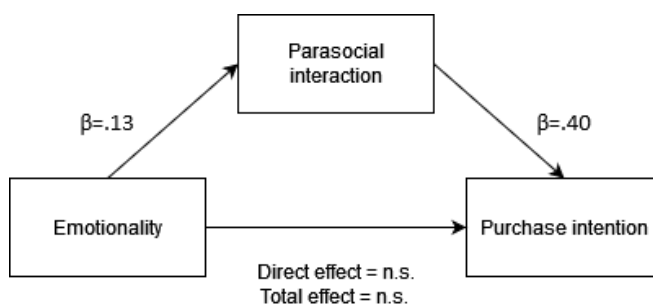
Figure 5: Mediation analysis of emotionality

The MANOVA analysis showed that no significant effects for source credibility were found, thus mediation is not possible, therefore hypotheses 8 and 9 are rejected.

4.3 Additional analysis

Additional analyses were also performed. First a multiple linear regression was performed to determine the effect of source credibility and parasocial interaction on purchase intention. After that the effects of number of followers, attitude towards green products, the type of Instagram user and the stimulus viewing time were explored.

4.3.1 Effects of source credibility and parasocial interaction

To test the effects of the mediation variables source credibility and parasocial interaction, a multiple linear regression analysis was performed. The analysis showed that the variability in purchase intention is explained by parasocial interaction and source credibility, $F(4, 239) = 33.97$, $p < .001$, $R^2 = .36$. The analysis showed that parasocial interaction had a weak positive significant effect on purchase intention ($\beta = .15$, $SE = .06$, $p = .015$). The test showed also that trustworthiness had a moderate significant positive effect on purchase intention ($\beta = .44$, $SE = .09$, $p < .001$). This implies that a high level of parasocial interaction and trustworthiness leads to a stronger purchase intention. No significant effects of attractiveness ($p = .918$) and expertise ($p = .154$) on purchase intention could be found. An overview of the results of the multiple linear regression can be found in Table 13.

Table 13

Linear regression results of the impact of mediators on purchase intention

Independent variables	df	*F*	*p*	β
Attractiveness	4,239	33.97	.919	.01
Expertise	4.239	33.97	.154	.10
Trustworthiness	4.329	33.97	<.001	.44
Parasocial interaction	4.329	33.97	.015	.15

4.3.2 Number of followers

The effects of number of followers on purchase intention was also tested. The ANOVA showed that the manipulation of number of followers had no significant effects, $F(5, 232) = 0.69$, $p = .633$. Even though there are differences in the means between low and high number of followers, there are no significant differences. The number of followers of an influencer did not influence the purchase intention, source credibility and parasocial interaction. Table 14 shows an overview of the observed mean and standard deviations values for the manipulation of the number of followers.

Table 14

Mean and Standard Deviation Values for Main Effect of Number of Followers

	Number of followers	
	Low	**High**
Dependent variables		
Attractiveness [a]	4.79 (0.94)	4.69 (1.03)
Expertise [a]	3.94 (1.09)	3.82 (1.05)
Trustworthiness [a]	4.40 (1.14)	4.18 (1.06)
Parasocial interaction [a]	3.17 (1.35)	2.91 (1.19)
Purchase intention [a]	4.12 (1.33)	4.05 (1.24)

Note: Standard deviation in brackets

4.3.3 Attitude towards green products

To test the effects of attitude towards green products on purchase intention, a linear regression analysis was performed. The attitude was measured before the participants saw the stimuli. The test showed that attitude towards green products had a moderate positive significant effect on purchase intention ($\beta = .46$, $SE = .07$, $R^2 = .21$, $p < .001$). Attitude towards green products had a weak positive significant effect on expertise ($\beta = .16$, $SE = .07$, $R^2 = .03$, $p = .014$) and trustworthiness ($\beta = .23$, $SE = .06$, $R^2 = .05$, $p < .001$). Attitude towards green products did not have significant effects on parasocial interaction ($p = .207$) and attractiveness ($p = .068$). If people were more interested in green products before seeing the stimuli, their interest in the products shown in the posts increased. Those people also tended to consider the influencer to be more trustworthy and more of an expert.

4.3.4 Type of Instagram user

To test the effects of whether the participant follows influencers on Instagram on purchase intention, parasocial interaction and trustworthiness, an independent sample t-test was performed. The test did not include expertise and attractiveness because previous analysis showed that those variables did not influence purchase intention. The test showed that whether the participant follows an influencer on Instagram did have an significant effect on purchase intention, $t(235) = 3.57$, $p = .010$. Participants who follow influencers on Instagram had a higher intention to purchase (M = 4.27, SD = 1.21) compared to participants who did not follow influencers on Instagram (M = 3.83, SD = 1.37). A significant effect was also found on trustworthiness $t(235) = 6.30$, $p < .001$. Participants who follow influencers had a higher level of trustworthiness (M = 3.93, SD = 1.21), compared to participants who do not follow influencers on Instagram (M = 4.54, SD = 0.97). No significant effect of whether the participant follows influencers on parasocial interaction *(p = .060)* were found. People who follow influencers in real life are more willing to buy the products that were recommended by the influencer. Those people also tended to consider the influencer to be more trustworthy and have a strong parasocial interaction with the influencer.

To test the effect of how often the participants bought something that an influencer recommended on Instagram, on purchase intention, parasocial interaction, and trustworthiness an independent sample t-test was performed. In this analysis expertise and attractiveness were also excluded because they did not influence the purchase intention. Before this test was conducted two groups were created. One with participants who said that they never bought something that an influencer recommended (N = 133) and one with participants who said that they bought something that an influencer recommended (N = 111). A significant effect of how often they bought something than an influence recommended was found on purchase intention $t(242) = 1.75$, $p = .007$. Participants who bought something that an influencer recommended had a higher level of purchase intention (M = 3.88, SD = 1.31), compared to participants who never bought anything that an influencer recommended (M = 4.54, SD = 0.97). Whether the participant bought something that an influencer recommended had also a significant effect on parasocial interaction, $t(242) = 0.70$, $p = .016$, Participants who bought something that an influencer recommended had a higher level of parasocial interaction (M = 2.86, SD = 1.23), compared to participants who never bought anything that an influencer recommended (M = 3.26, SD = 1.31). It had also a significant effect on the trustworthiness $t(242) = 0.37$, $p < .001$. Participants who bought something that an influencer recommended had a higher level of trustworthiness (M = 4.03, SD = 1.11), compared to participants who never bought anything that an influencer recommended (M= 4.59, SD = 1.02). To conclude, people who bought things that influencers recommend before seeing the stimuli are also more intended to buy the products that the influencer recommended in their posts. Those people also tended to consider the influencer to be more trustworthy and have a stronger parasocial interaction with the influencer. The question about how often the participants interact with influencers on Instagram was not included in the analysis, because the question did not seem to relate to what this study is about.

4.3.5 Stimulus viewing time

A MANOVA analysis was performed to see if results of interactivity, emotionality, and number of followers on purchase intention, source credibility and parasocial interaction, would differ after removal of people who looked a short or long time at the experimental materials. Participants who saw the stimulus material shorter than 20 seconds or longer than 100 seconds were removed. This caused removal of 63 participants. In total 181 participants were used in the analysis. The MANOVA, see Table 15, showed no significant effects of interactivity, emotionality and number of followers after removal of these participants.

Table 15

Results of the MANOVA after removal of outliers

Multivariate Tests	Wilks' Lambda	df	F-value	Sig.
Wilks' Lambda				
Interactivity	0.97	167	1.14	.340
Emotionality	0.97	167	1.10	.362
Number of followers	0.99	167	0.44	.822
Interactivity * Emotionality	0.96	167	1.38	.234
Interactivity * Number of followers	0.97	167	0.18	.320
Number of followers * Emotionality	0.99	167	0.46	.806

4.4 Overview of results of the tested hypothesis

An overview of the hypotheses and their conclusion is provided in Table 16. These conclusions are based on the statistical analyses of the previous paragraphs. The table shows that none of the hypotheses are supported.

Table 16

Summary of Results of the Tested Hypotheses

No	Hypothesis	Result
H1	A high level of interactivity lead to a higher purchase intention compared to a low level of interactivity.	Rejected
H2	A high level of emotionality lead to a higher purchase intention compared to a low level of emotionality.	Rejected
H3	The positive effect of interactivity on purchase intention is strongest when the emotionality of a message is high.	Rejected
H4	The positive effect of interactivity on purchase intention is the strongest with a meso influencer compared to a micro influencer.	Rejected
H5	The positive effect of emotionality on purchase intention is the strongest with a meso influencer compared to a micro influencer.	Rejected
H6	The impact of interactivity on purchase intention is mediated by parasocial interaction.	Rejected
H7	The impact of emotionality on purchase intention is mediated by parasocial interaction.	Rejected
H8	The impact of interactivity on purchase intention is mediated by [A)] trustworthiness, [B)] attractiveness, and [C)] expertise.	Rejected
H9	The impact of emotionality on purchase intention is mediated by [A)] trustworthiness, [B)] attractiveness, and [C)] expertise.	Rejected

Figure 6 shows the empirical model, with dashed lines for links that were not significant.
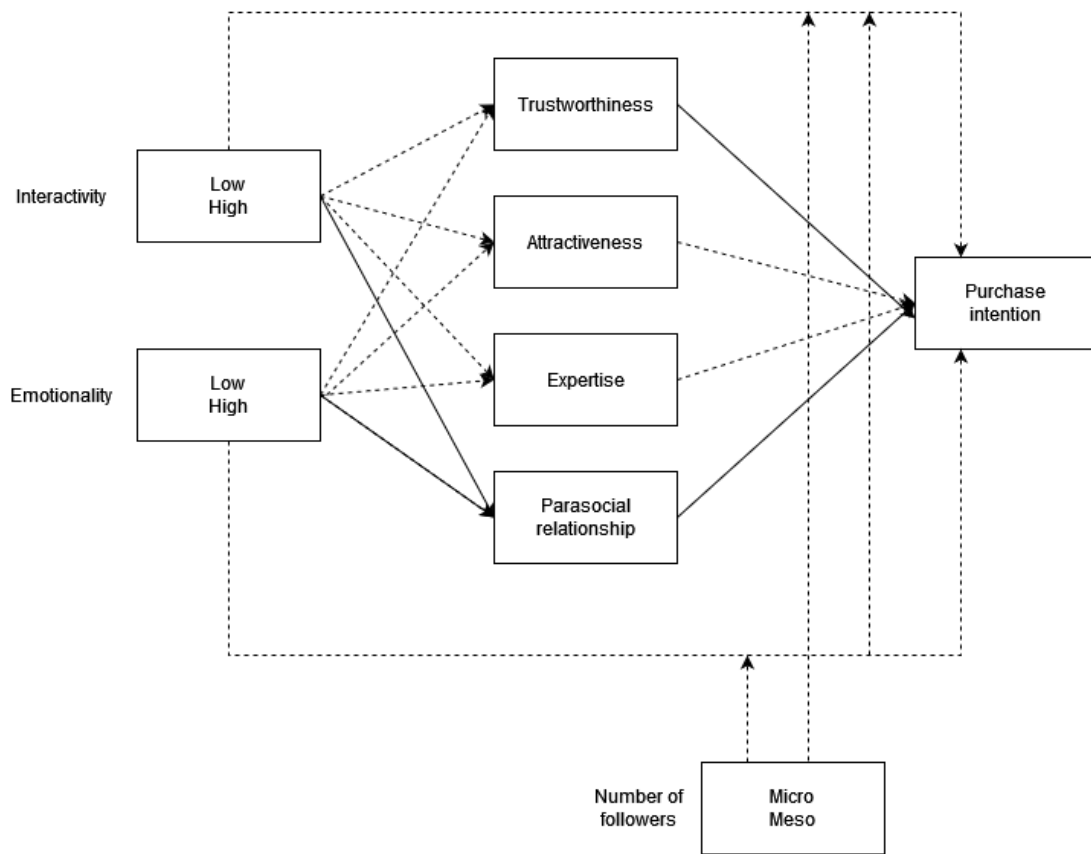
Figure 6: Empirical model

5 Discussion

The last chapter of the paper is the discussion of the research. First the results will be discussed. After that the recommendations for practice and the limitations and recommendations for future research are discussed. The chapter ends with the conclusion of the whole research.

5.1 Discussion of results

The research question of this study was: *To what extent do interactivity and emotionality of an eco-influencer Instagram posts, and the number of followers affect purchase intention, parasocial interaction and source credibility among Dutch social media users?* This question will be discussed in three sections. The first section discusses the results of interactivity, emotionality, and the number of followers. The second section discusses the results of parasocial interaction and source credibility. The last section consists of the discussion of the additional results.

5.1.1 Discussion of interactivity and emotionality

The results showed that interactivity and emotionality of influencers' posts do not cause differences in people's willingness to buy eco products. People who never had contact with the influencer did not thinking differently about their intention to purchase based on these manipulated profiles and messages. This contrasts with what was expected based on literature. The expectation was that using interactivity in a message would strengthen purchase intention because these messages are seen as more informative, entertaining, and helpful which causes more motivation to buy (Alalwan, 2018; Ott et al., 2016). It was also expected that using emotionality in Instagram posts had a positive influence on purchase intention because emotions function as a cue (Dietrich, 2013). Nevertheless, the outcomes of the current study are in contrast with previous literature.

A possible reason for why there were no effects of interactivity is that the conceptualisation of interactivity might be wrong, or the manipulation was not strong enough. Go and Bortree (2017) state that a message is fully interactive if there is a back and forward conversation between the influencer and receiver. In this study messages that invites for conversation were used, who are according to Go and Bortree (2017) non-interactive. Based on what they claim, the manipulation did not fit their definition of interactivity, therefore the results of this study can merely conclude that it is not of importance for influencing purchase intention if influencers use messages that invite or not invite for conversation. Using fully interactive messages leads to a higher credibility perception according to Go and Bortree (2017), which is in contradiction to what this study showed.

One of the explanations why there were no effects of emotionality is that the factual messages as well as the emotional messages were categorized by the participants as emotional. This implies that participants saw all messages as emotional, even though they were not all intendent to be emotional. Instagram is a platform made for pictures, yet the manipulation was in the descriptions below the pictures. It could be that the audience was more focusing on the pictures instead of the descriptions. The pictures showed a face of the influencer, according to Rietveld et al. (2020), people judge emotionality based on face expressions. He explains that people have developed skills to interpret faces, and since the face is showing positive emotions such as a smile, the participants could have interpreted that as emotional even though the manipulation below the picture was not supposed to be showing feelings. This implies that the picture could have had an overriding effect on the manipulation of emotionality. Another reason why there were no effect of interactivity and emotionality could be that the manipulation of one added sentence was not enough of a difference to measure effects. Nevertheless, during the pre-test participants indicated the factual messages as not emotional.

The study started by exploring popular marketing blogs who claimed that there were two influencer categorisations. One categorisation of influencer types was not yet academically explored. In this

study the influencer types advocate, referrer, loyalist, and the new socialiser were divided over two variables: interactivity and emotionality. Based on literature it was predicted that the positive effect of interactivity on purchase intention was strongest when the emotionality of a message was high. The results of this study showed that there was no interaction between interactivity and emotionality. This implies that people who read a message with a combination of emotionality and interactivity did not differentiate in their willingness to buy eco products, which contrasts with what was predicted based on literature. It can be concluded that, based on conceptualisations of the influencer types of this study, it does not matter how influencers use interactivity and emotionality in their Instagram posts, because the receiver is not going to change their willingness to buy based on the content of the descriptions below an Instagram post. It cannot be concluded that the influencer types do not influence purchase intention, because this study divided the variables over two characteristics, but the influencer types consist of more than only these two characteristics. For example, popular marketing blogs describe that a characteristic of a referrer is that they only promote one company, yet in this study the choice was made to promote different companies because nonfictional influencers promote often also more than one company.

The number of followers was studied in combination interactivity and emotionality. It was expected that the positive effect of interactivity and emotionality on purchase intention is the strongest with a meso influencer. In contrary to what was predicted, no effects of the combination between number of followers and emotionality or interactivity were found. This implies that people who read a message with a combination of emotionality and number of followers or interactivity and the number of followers did not differ in their willingness to buy eco products. A reason why there were no effects could be that the number of followers, the number of following and interactivity were related to each other. Sokolova and Kefi (2020) state that the higher the number of followers, the less likely the influencer respond to a message. This could mean that when people see a higher number of followers, they assume that the response rate is low.

5.1.2 Discussion of parasocial interaction and source credibility
Based on insights that were gathered in this study, it was found that people who read an Instagram post description without interaction have a stronger parasocial interaction with the influencer, compared to people who read a post description with interaction. Based on literature it was expected that using interactivity in messages strengthens parasocial interaction, yet the results of this study are not line with what was expected, they were in opposite direction. Interactivity is a persuasion technique (Sundar & Kim, 2005), it might be that participants experienced the message with interactivity as an attempt of the influencer to persuade them into selling eco-products. This suggests that they did not see the influencers as a friend but as a salesperson, which can be a possible explanation of why participants who saw messages without interactivity had a stronger parasocial intention compared to participants who saw a message with interactivity. Even though the participants indicated that the emotional and the not emotional posts were emotional, this study showed that people who read emotional posts had a stronger parasocial interaction compared to people who have read the post without emotionality. This finding corresponds to what is known in previous studies, but it should be interpreted with caution (Rubin et al., 2003; Yuan & Lou, 2020). An influencer who uses emotional components in their messages is more likely to form a stronger parasocial interaction with their followers. As an explanation, people in relationships talk more about emotions, thus the use of emotions can strengthen the feeling of having a (pseudo) relation (Gaelic et al., 1985). These results suggest that parasocial interaction can be influenced by the interactivity and emotionality of an Instagram posts description.

In contrast to parasocial interaction, source credibility is not influenced by the interactivity and emotionality of an influencer's message. Based on literature it was expected that interactivity causes a higher level of source credibility. It was also expected that messages with no emotional

components have a stronger influencer on the source credibility compared to messages with emotional components, because those messages have stronger arguments (Vendemia, 2017). However, the results showed no effects of emotionality and interactivity on source credibility. This implies that if marketeers want to strengthen source credibility, is it not of importance if their influencers use emotionality or interactivity in their messages or not.

Previous literature showed that all factors of source credibility influenced purchase intention (Lim et al., 2017; Ohanian, 1990). This study showed that neither expertise nor attractiveness of an influencer had an effect on purchase intention. Pornpitakpan (2004) explains that trustworthiness is the most influential factor of source credibility on purchase intention. This suggest that if marketeers want to strengthen purchase intention, it does not matter if they select influencers based on attractiveness or expertise. It is of importance, when selecting an influencer to raise the willingness of people to buy, to focus on parasocial interaction and trustworthiness.

5.1.3 Additional discussion of results

The effects of the number of followers on purchase intention, source credibility and parasocial interaction were also studied. Based on literature it was predicted that a lower number of followers leads to a stronger intention to purchase and parasocial interaction (Brewster & Lyu, 2020; Probstnerová, 2018). Literature state also that a higher number of followers leads to a higher source credibility (Chapple & Cownie, 2017; Jin & Phua, 2014). By contrast, the results of the current study showed that profiles with a high number of followers did not differ on purchase intention, parasocial interaction and source credibility compared to a profile with a low number of followers. This suggests that the number of followers of an eco-influencer is not of importance when trying to strengthen purchase intention, parasocial interaction, and source credibility. Although the manipulation of the number of followers was correctly set up, it did not influence people's intention to purchase. Participants did notice the difference in number of followers and the verification logo, but it did not make them think differently about the influencer. This does not imply that the number of followers of an influencer is not important for marketeers because the number of followers is still an important factor when selecting an influencer because it can be a metric for potential reach (De Veirman et al., 2017).

Another possible reason why there were no effects of interactivity, emotionality, and number of followers on purchase intention could be that there were too many messages containing different products. The purchase intention items ask about all the products that were shown during the questionnaire. These products are very diverse, and people could have different opinions about the individual products, which could influence their general answers. Another argument why there are no effects of emotionality, interactivity, and the number of followers on purchase intention might be that there are other factors that affect purchase intention. Some other factors were studied during the additional analyses. One of these factors is the attitude towards green products. The results showed that attitude influences purchase intention. People who have a strong attitude towards green products are more willing to buy them. This is in alignment with the belief that people who have a positive attitude also perform behaviour, in this case purchase intention, because of consistency (Ajzen & Madden, 1986). People who have a strong attitude towards green products also see the influencer as more of an expert and more trustworthy. This implies that if marketeers want to sell more, they should aim for changing attitudes with pictures instead of focusing on emotionality and interactivity of a caption or the number of followers of an influencer. According to Mosler and Martens (2008) green attitudes can be changed by using more peripheral cues with for example the picture.

In the additional analysis also the type of Instagram was studied. Even though it was a requirement that participants had to use Instagram, not every participant followed influencers on Instagram. The

results showed participants who stated to follow influencers had a stronger purchase intention and trustworthiness. If the participant bought something that an influencer recommended on Instagram before, they were more willing to buy the eco-products and had a stronger parasocial interaction and saw the influencer as more trustworthy. Pornpitakpan (2004) state that if you have previous experience, then that experience can be a cue. This could be the cause of why previous buying behaviour and whether participants follow an influencer have positive effects. Based on these results it can be stated that marketeers should not be focussing on the content of messages when they want to increase purchase intention but should be focussing on learning the audience's behaviour. For example, audiences that do not buy things than influencers recommend, should be persuaded to buy for the first time with other persuasive techniques. This can for example be the six principles of Cialdini (1987); reciprocity, scarcity, authority, commitment and consistency, liking and social proof. Audiences needed also to be persuaded to follow influencers. Croes and Bartels (2021) state that people follow influencers based on *'information sharing, cool and new trend, relaxing entertainment, companionship, boredom/habitual pass time, and information seeking'* (P1). This means that they should be looking into the motivations of audiences to follow an influencer before focussing on persuading them to buy.

5.2 Recommendations for practice

First, it can be stated that this study contributes to the literature by exploring for the first time academically the influencer types advocate, referrer, loyalist and socialist. The influencer types were divided over the two variables interactivity and emotionality. The influencer types based on this division did not influence the purchase intention. For marketeers these results imply that if they want to strengthen the purchase intention, it is not of importance if the influencer uses interactivity or emotionality in their pictures description. These results do not imply that the influencer types do not have any influence, since the conceptualized influencers have more than two characteristics. It can be that there are other characteristics of these influencer types that could have an influence on the purchase intention. It can be recommended that more research needs to be done, regarding the influencer types, especially on the different characteristics. It can also be recommended that marketeers shouldn't use information from marketing blogs that hasn't been validated empirically or scientifically.

For marketeers it can be useful when selecting influencers that they take parasocial interaction and trustworthiness into account. Marketeers should use influencers that are trustworthy and have a high level of parasocial interaction with their receivers if they want to strengthen the purchase intention. Attractiveness and expertise of an influencer are for marketeers who want to strengthen their purchase intention less important since they do not have an influence. For marketeers and communicators working with eco-influencers, it is important that they not have their focus on interactivity and emotionality of descriptions below a message if they want to strengthen purchase intention, because attitude plays a more important role in whether people have the intention to buy. The more positive the attitude the higher purchase intention they have. Marketeers should focus on discovering the attitude towards green products of the receivers of the influencer. Previous behaviour has a positive effect on the strength of purchase intention. Marketeers should discover if their target audience follows influencers on Instagram and if they have previously bought something that an influencer recommended. If they do not it is of importance to focus on changing the attitude or on letting people buy something that influencer recommend for the first time, instead of focussing on the content of the messages to make people more willing to buy eco-products. For the number of followers did not have an impact of the individual assessment of the influencer, but that does not mean that it is not of importance for marketeers, because it does matter in how many people end up seeing a product that that influencer shares. To conclude, it is for marketers important to gain insights into the target audience for the product when selecting an influencer, besides the influencer's trustworthiness and parasocial interaction.

5.3 Limitations & recommendations for future research

This study yielded some insights about the interactivity, emotionality, and the number of followers of an eco-influencer on Instagram. However, this research also had some limitations that need to be discussed together with recommendations for future research, such as the conceptualisations, sample, and the use of fictional influencers.

It can be recommended to do further research about the influencer types. First the influencer types were categorised based on emotionality and interactivity. Since that did not influence the purchase intention, more research needs to investigate whether this was the right way to categorise it. For further research it can therefore be recommended that the pre-test includes a study if this is the right way to categorise them. For further research it is of importance to explore if socialiser influencer type is of relevance since it is a newly conceptualized influencer type. Further research might also look at other characteristics to further explore these influencer types. In this study all four types were compared to each other, but the types are different from each other. For further research it might be relevant to research individual characteristics and compare if they influence the purchase intention before exploring the differences between influencer types. Marketing blogs did not state on what the influencer types influenced. This study chose to work with the purchase intention since it is most used by marketers as key-performance indicator. Future research can examine other marketing- or advertising-related outcomes, such as product interest, brand awareness or actual sales to examine if they are affected by the influencer types.

The way emotionality was manipulated in this study had flaws. A more careful approach to designing the stimulus material should be adopted for further research because participants saw both emotional and not emotional messages as emotional. This could for example be a more extensive pre-test that also assesses whether the manipulation meets the requirements. For future research it is important to make the emotional condition more clearly differentiated. Emotional components such as the face of an influencer should not be used in messages when manipulating emotionality, because it probably caused participants to not see both manipulations as emotional. Another limitation of the emotionality manipulation is that adding one sentence, could cause that the group who saw the emotional message had more information that the group that did not have the extra sentence. Another limitation is that interactivity was probably incorrect conceptualized. As discussed in the previous paragraphs, this study used messages that invite for conversation as high interactivity, while Go and Bortree (2017) states that those are non-interactive. For further research it is of importance to explore if fully interactive messages have different effects compared to the non-interactive messages that were used in this study. Participants of this study did recognize the interactivity manipulations; further research needs therefore to explore if the claims made by Go and Bortree (2017) are true for eco-influencers on Instagram.

Another limitation is that only the descriptions below the Instagram picture were manipulated. For future research it can be recommended to not only manipulate the descriptions of Instagram posts, but also the pictures. Instagram is a picture-based platform, therefore people might pay more attention to the pictures than to the descriptions of a post. (Pittman & Reich, 2016). Additionally, this study used a fictional influencer and fictional messages. The influencer and the posts were made based on real eco-influencers. However, as these Instagram posts were created by the researcher, there is a chance that it may have affected the results because participants were able to see that the posts were fictional posts. This could have led to different results compared to if the influencer was real. In this study the comment and like section was removed, which could also have contributed to the feeling that the influencer was fictional. It might be interesting for future research to make the stimulus material more realistic.

Although participants needed to be older than 18 years. The majority (76.2%) of participants were between 18 and 30 years old. The participants could have a relatively young age because convenience sampling was used, because this is the age category of the researcher. For future research might it be interesting to examine if the results differ for a higher age group, because according to Yoon et al. (2005) older people are more likely to be persuaded by messages with emotional appeals compared to younger people.

5.4 Conclusion

The purpose of this study was to explore to what extent interactivity and emotionality of an eco-influencer Instagram description, and the number of followers affect purchase intention, parasocial interaction and source credibility. To conclude this research, interactivity and emotionality of influencers' posts and the number of followers does not cause differences in people's willingness to buy eco products and source credibility. This suggest that the influencer types do not have different effects on purchase intention based on the message characteristics: interactivity and emotionality. It cannot be concluded that the influencer types do not influence purchase intention, because the influencer types consist of more than only these two characteristics therefore more research is needed. Future research should also focus on the manipulations because they might be inaccurate because both the emotional and not emotional messages were seen as emotional, and the interactive messages of this study might be non-interactive. Based on insights that were gathered in this study, people who read a low interactive or a high emotional message, have a stronger parasocial interaction. This study showed that if marketeers want to strengthen purchase intention, it is not of importance if they select eco-influencers based on attractiveness or expertise, they should focus on parasocial interaction and trustworthiness. Marketeers should also focus on characteristics of the target audience, besides parasocial interaction and trustworthiness. This can be the attitude towards green products but also if they follow influencers on Instagram or if they previously bought something that an influencer recommended, because this research showed their influence on the purchase intention. With this study it can be concluded that more research is needed to explore the effects of the influencer types, interactivity, and emotionality on the purchase intention, parasocial interaction and source credibility. If marketeers want to strengthen the purchase intention they should focus on trustworthiness and parasocial interaction.

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Appendix A: Questionnaire

Dear respondent,

Thank you for participating in this survey. This online experiment is part of my master thesis project in Communication Science. The aim of this research is to examine different types of influencers and their effects. It would help me a lot if you would take a few minutes to complete this questionnaire. It will take approximately 10 to 15 minutes of your time.

Participation is anonymous and voluntary. All data will be treated confidentially and will not be disclosed to other parties. You can withdraw from this research at any moment. For comments and/or questions about the research, please contact me by sending an email to s.meijer-1@student.utwente.nl.

Thank you very much for participating in this survey.

Sanne Meijer

By giving the 'agree' below, you agree to participate in this survey
Agree
Not agreed

Skip to: End of survey if not agreed

Filter question

Do you use Instagram?
Yes
No

Demographic Information

What is your gender?
Male
Female
Prefer not to answer
Otherwise, namely:

How old are you?

What is the highest level of education have you obtained?
No education/incomplete primary education
Elementary School
Secondary education
Secondary vocational education
Higher professional education
University
Otherwise, namely:

Control variables

Attitude
Purchasing green products is a good idea'
I have a favourable attitude towards purchasing a green version of a product
I am willing to pay more for a green product
If I must choose between a green and non-green product, choose a green product

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Before you continue, it is important that you first take a good look at the Instagram profile with associated messages. After viewing several questions about this profile with corresponding messages will be asked. Try to answer these questions as honestly as possible using the multiple-choice options. There is no right or wrong answer.

SHOWS EXPERIMENTAL MATERIAL HERE, ONE OF THE EIGHT CONDITIONS

Measurements

The following statements are about the products you just saw. Try to respond to these statements as honestly as possible.

Purchase intention
I will probably buy the products
I will probably buy the products she promoted if I happen to need them
If I'm going to buy sustainable products, I'll consider the products
My willingness to buy the products is high
There is a good chance that I will consider the products
There is a good chance that I will buy the products

Attractiveness
The influencer is attractive
The influencer is classy
The influencer is beautiful
The influencer is elegant
The influencer is sexy

Trustworthiness
The influencer is dependable
The influencer is honest
The influencer is sincere
The influencer is trustworthy

Expertise
The influencer is expert
The influencer is experienced
The influencer is knowledgeable
The influencer is qualified
The influencer is skilled

Parasocial interaction
The influencer makes me feel comfortable, as if I am with a friend.
I see the influencer as a natural, down-to-earth person.
The influencer seems to understand the kinds of thing I want to know.

If I see a story about the influencer in other places, I will read it.
I would like to meet the influencer in person.
If the influencer lived in my neighbourhood, we would be friends.
The influencer would fit in well with my group of friends.

Control variables

Manipulation check questions
The influencer has many followers
The influencer is verified (there was a blue checkmark)
The posts are emotional
The posts are factual
The posts seek interaction

Do you follow influencers on Instagram?
No
No idea
Yes

How often do you interact with influencers on Instagram?
Never
Less than once every six months
Between once a month and once every six months
Between 2 and 3 times a month
Between 2 and 1 times a week
Between 3 and 4 times a week
Between 5 and 6 times a week
Daily

How often do you buy something recommended by an Instagram influencer?
Never
Less than once every six months
Between once a month and once every six months
Between 2 and 3 times a month
Between 2 and 1 times a week
Between 3 and 4 times a week
Between 5 and 6 times a week
Daily

Comment section

Do you have any questions and/or comments about this survey?

End of questionnaire

Thank you for fulfilling this survey. You have come to the end of this survey. Your answers will be stored anonymously and will be used anonymously for the research. If you have any comments and/or questions about the research, you can contact me by sending an email to s.meijer-1@student.utwente.nl.

Appendix B: Stimulus materials

Micro influencer, low interactivity, and low emotionality
Condition 1
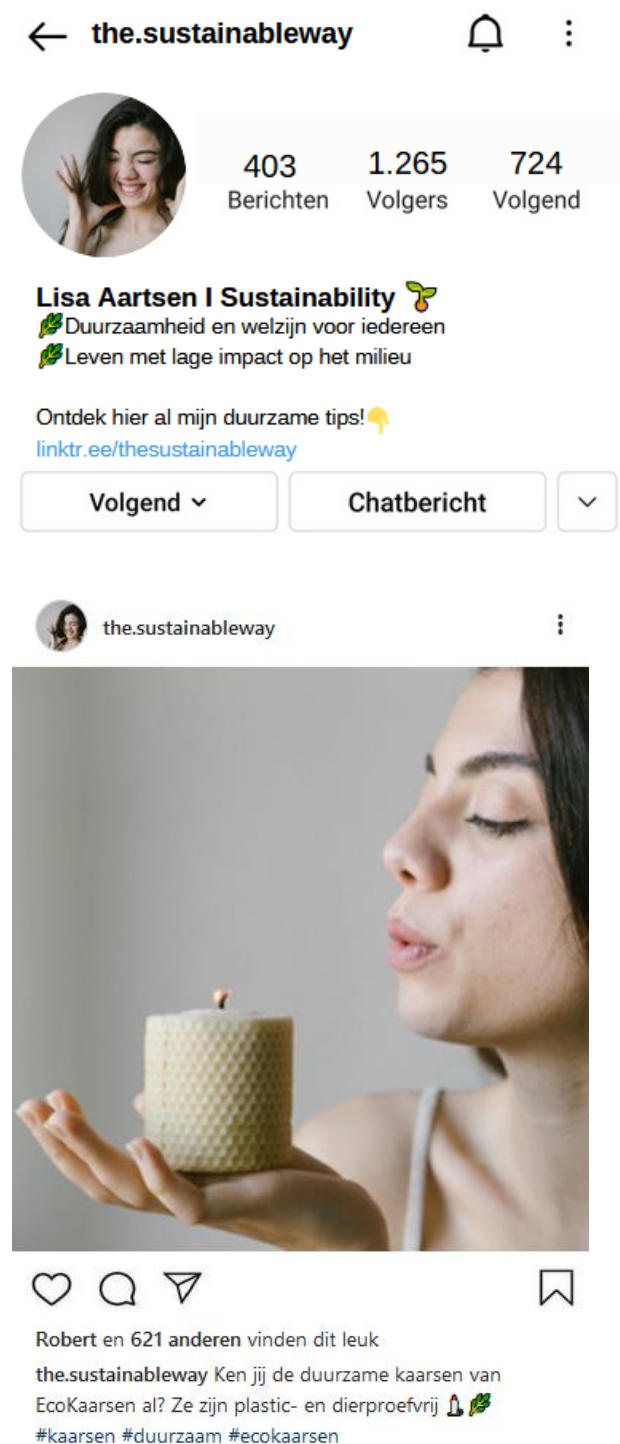
the.sustainableway

Sjoerd en 603 anderen vinden dit leuk

the.sustainableway Het gebruik van planten in je huis is een goede manier om gifstoffen te verwijderen uit de lucht die we inademen 🌿

#planten #duurzaam #sustainability

the.sustainableway

Julia en 587 anderen vinden dit leuk

the.sustainableway Elk jaar komen er bijna 2 miljard plastic tandenborstels in de oceanen. Anders dan andere tandenborstels is de bamboe tandenborstel van EcoBad vegan, bpa-vrij en composteerbaar 🌱🪥

#bamboe #duurzaam #tandenborstels #ecobad

Meso influencer, low interactivity, and low emotionality
Condition 2

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
| 403 | 86,9 d... | 724 |
| Berichten | Volgers | Volgend |

Lisa Aartsen I Sustainability 🌱
🍃Duurzaamheid en welzijn voor iedereen
🍃Leven met lage impact op het milieu

Ontdek hier al mijn duurzame tips!👇
linktr.ee/thesustainableway

| Volgend ⌄ | Chatbericht | ⌄ |

the.sustainableway ⋮

♡ ◯ ◁   ⊓

Robert en **621 anderen** vinden dit leuk

the.sustainableway Ken jij de duurzame kaarsen van
EcoKaarsen al? Ze zijn plastic- en dierproefvrij 🕯️🍃
#kaarsen #duurzaam #ecokaarsen

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Sjoerd en 603 anderen vinden dit leuk

the.sustainableway Het gebruik van planten in je huis is een goede manier om gifstoffen te verwijderen uit de lucht die we inademen 🌿
#planten #duurzaam #sustainability

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#bamboe #duurzaam #tandenborstels #ecobad

Micro influencer, high interactivity, and low emotionality
Condition 3

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403	**1.265**	**724**
Berichten	Volgers	Volgend

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| Volgend ⌄ | Chatbericht | ⌄ |

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♡ ○ ◁   ⊟

Robert en **621 anderen** vinden dit leuk
the.sustainableway Ken jij de duurzame kaarsen van
EcoKaarsen al? Ze zijn plastic- en dierproefvrij 🕯️🍃

Wat is jouw favoriete kaars?
#kaarsen #duurzaam #ecokaarsen

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♡ ○ ◁   🔖

Sjoerd en **603 anderen** vinden dit leuk

the.sustainableway Het gebruik van planten in je huis is een goede manier om gifstoffen te verwijderen uit de lucht die we inademen 🌿

Welke planten heb jij in huis?
#planten #duurzaam #sustainability

the.sustainableway

♡ ○ ◁   🔖

Julia en **587 anderen** vinden dit leuk

the.sustainableway Elk jaar komen er bijna 2 miljard plastic tandenborstels in de oceanen. Anders dan andere tandenborstels is de bamboe tandenborstel van EcoBad vegan, bpa-vrij en composterbaar 🌵🪥

Gebruik jij al bamboe producten in je badkamer?
#bamboe #duurzaam #tandenborstels #ecobad

← **the.sustainableway** ✔ 🔔 ⋮

403	86,9 d...	724
Berichten	Volgers	Volgend

Lisa Aartsen I Sustainability 🌱
🌿Duurzaamheid en welzijn voor iedereen
🌿Leven met lage impact op het milieu

Ontdek hier al mijn duurzame tips!👇
linktr.ee/thesustainableway

| Volgend ⌄ | Chatbericht | ⌄ |

the.sustainableway ⋮

♡ ○ ▽   🔖

Robert en 621 anderen vinden dit leuk

the.sustainableway Ken jij de duurzame kaarsen van
EcoKaarsen al? Ze zijn plastic- en dierproefvrij 🕯️🌿

Wat is jouw favoriete kaars?
#kaarsen #duurzaam #ecokaarsen

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♡ ◯ ◁　　　🔖

Sjoerd en **603 anderen** vinden dit leuk

the.sustainableway Het gebruik van planten in je huis is
een goede manier om gifstoffen te verwijderen uit de lucht
die we inademen 🌿

Welke planten heb jij in huis?
#planten #duurzaam #sustainability

the.sustainableway　　　⋮

♡ ◯ ◁　　　🔖

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vegan, bpa-vrij en composterbaar 🌵🪥

Gebruik jij al bamboe producten in je badkamer?
#bamboe #duurzaam #tandenborstels #ecobad

Micro influencer, low interactivity, and high emotionality
Condition 5

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♡ ◯ ◁   🔖

Sjoerd en 603 anderen vinden dit leuk

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een goede manier om gifstoffen te verwijderen uit de lucht
die we inademen, dit maakt je leven gezonder, groener en
gelukkiger 🌿

#planten #duurzaam #sustainability

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vegan, bpa-vrij en composterbaar, waardoor ze zorgen
behoud van deze mooie natuur met al haar dieren 🌵✏

#bamboe #duurzaam #tandenborstels #ecobad

Meso influencer, low interactivity, and high emotionality
Condition 6

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#planten #duurzaam #sustainability

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#bamboe #duurzaam #tandenborstels #ecobad

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Welke planten heb jij in huis?
#planten #duurzaam #sustainability

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Gebruik jij al bamboe producten in je badkamer?
#bamboe #duurzaam #tandenborstels #ecobad

Meso influencer, high interactivity, and high emotionality
Condition 8

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die we inademen, dit maakt je leven gezonder, groener en
gelukkiger 🌿

Welke planten heb jij in huis?
#planten #duurzaam #sustainability

the.sustainableway ⋮

♡ ○ ◁   🔖

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Gebruik jij al bamboe producten in je badkamer?
#bamboe #duurzaam #tandenborstels #ecobad