Satisfaction with online dating choices: the effect of

decisiveness and choice overload

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Abstract

Comment [RH1]:

Online dating apps and websites often provide users with a large pool of potential partners. The current research investigates whether this abundance of choice leads to less satisfaction with a selected partner. In addition, we examine if individual differences in action- versus state-orientation moderate the choice overload effect. Contrary to earlier findings on the choice overload effect we find that, one week after mate selection, people are more satisfied when choosing in a choice overload condition (i.e. 24) compared to a no choice overload condition (i.e. 6). We found that people's action- or state-orientation has no influence on satisfaction in both conditions. The results did not support the choice overload effect, and contrarily showed that people prefer more choice when participating in online dating. To increase understanding of the choice overload effect in dating scenario's, replication of this study is needed.

Introduction

Our world is increasingly shifting towards an online focus. An evident example of this shift is the transition from offline to online shopping (Mosteller, Donthu & Eroglu, 2014). However, many more daily activities are currently going through this transition. Apparent from the huge rise in online dating profiles (Ramirez, Sumner, Fleuriet & Cole, 2015), people are increasingly interested in meeting a potential partner online. The amount of online dating websites and profiles indicate that people have an increasing number of online dating choices. In comparison to offline dating, online dating situations offer the possibility to view and learn about many more potential partners. New online dating situations raise the question whether a wide variety of options to choose from, a choice overload condition, negatively or positively influences people's choice satisfaction.

The common presumption is that a wider variety of options to choose from increases choice satisfaction, because it increases the chance that an option closest to one's preference is available. Therefore, people most often prefer a wide variety of options over a small variety of options (Iyengar & Lepper, 2000). However, people may be falsely optimistic about the benefits of many choices. The choice overload effect states that having more options causes people to be less satisfied with their choice (D'Angelo & Toma, 2017), illustrating a paradox with the presumption that we prefer an abundance of choice.

Beside the number of options to choose from, other variables are likely to influence people's satisfaction when making a decision. Decisiveness is the ability to make decisions quickly and effectively, and therefore a crucial personal factor in decision-making. Since online dating situations are highly connected to decision-making processes, decisiveness is likely to be an important characteristic when participating in online dating. The purpose of this study is to increase the understanding of the effect of choice overload on satisfaction in a high involvement decision-making process like dating, that includes a moderation of the effect for decisiveness.

Choice overload

Research on the choice overload effect originates from the field of behavioral economics and has been applied widely to explain the effects of choice on consumer purchases (D'Angelo & Toma, 2017). For example, Ivengar and Lepper (2000) examined the choice overload effect by making participants choose jams, chocolates or undertake assignments from a small or large set of options. They found that people are more likely to purchase gourmet jams, chocolates or to undertake optional class essay assignments when offered a small set of options (6 choices) in comparison to a large set of options (24 or 30 choices). Participants also reported more satisfaction with their selections and wrote better essays with a small set of options, even though they initially preferred to choose from the large set of options. More in general, the choice overload phenomenon has been found in a wide variety of consumer settings, like selecting coffee (Mogilner, Rudnick, & Iyengar, 2008), supporting charities (Scheibehenne, Greifeneder, & Todd, 2009) and relying on movie recommendations (Bollen, Knijnenburg, Willemsen, & Graus, 2010). In these studies, participants that chose from a large set of options showed a decrease in choice satisfaction, a decrease in preference strength (i.e., how much individuals preferred their chosen item compared to the alternatives) and experienced more disappointment, as compared to a small set of options (D'Angelo & Toma, 2017).

To broaden the spectrum of evidence for the choice overload phenomenon, research in other fields than consumer purchases has been carried out. Most relevant to the current work, researchers have been extending the application of the choice overload effect to online dating situations. For example, online daters registered more satisfaction when presented with a small pool (6 stimuli) of daters as opposed to a large pool (24 stimuli) of daters (D'Angelo & Toma, 2017). Also, participants in the choice overload condition (24 stimuli) acted more on the possibility to reverse their selection, stressing the fact that participants experienced less satisfaction in choice overload conditions than no choice overload conditions. The study measured satisfaction both immediately and after one week, showing a decrease in satisfaction after one week, but not immediately after mate selection. A possible reason why a high stakes context like dating requires time for the choice overload effect to appear, is because of its complexity. Complex situations may involve ramifications that are difficult to predict (e.g. *"how will my parents respond to my new partner?")* (D'Angelo & Toma, 2017).

A possible explanation for the choice overload effect is the regret an individual may experience after choosing a certain option. People experience more regret when choosing from a large set of options as compared to a small set of options (Iyengar and Lepper, 2000). This finding suggests that having more rejected alternatives creates more opportunities for regret to emerge (D'Angelo & Toma, 2017). Regret has also shown to sometimes accompany cognitive dissonance after making a decision (Koller & Salzberger, 2012). In these situations, the experience of regret is small or even nonexistent in the beginning and grows over time. This is in line with the finding of D'Angelo and Toma (2017), stating that reduced choice satisfaction was only measured after one week and not immediately after.

Another explanation for the choice overload effect is the experience of cognitive load. The line of reasoning for this explanation is initiated by the fact that a large meta-analytic review on choice overload shows that there is no reliable occurrence of the phenomenon choice overload (Scheibehenne, Greifeneder & Todd, 2010), indicating that also a large amount of studies did not find evidence for the existence of the choice overload effect. Results from the study of Lenton and Francesconi (2011) shed a different light on the inconsistent findings regarding the choice overload effect. Their findings show that participants expressed more satisfaction in a speed-dating context when they were faced with more options, but that the relation is moderated by the variety of the choice options. When the available options were highly variable in their attributes (age, weight, height, educational attainment, religion, occupation and smoking habits), participants experienced less satisfaction. This finding suggests that choice variety influences satisfaction, because it initiates confusion. An increase in variety of choices induces higher evaluation costs (Reutskaja & Hogarth, 2011), indicating an increase in cognitive effort. From this perspective, choice overload can be seen as a cause of cognitive overload.

Another study of Lenton and Francesconi (2010) indicates a similar relation between choice overload and cognitive load. The study examined a large amount of speed-dating events. In large sessions with more potential partners, people's choices were more likely to be driven by quick and easily assessed cues than in small sessions with less potential partners. Quick and easily assessed cues are morphological cues that can be apprehended visually and do not require verbal communication. So, when people had more choices, they had less time for characteristics that required more attention and therefore paid more attention to quick and easy cues. Superficial processing in choice overload conditions indicates that people experienced cognitive load, because attention to and memory for the options require cognitive resources (Lenton & Francesconi, 2010).

Decisiveness

A possible moderator of the choice overload effect is the extent to which people are decisive; i.e. whether they are action- or state-oriented. Action-orientation is a tendency to put intentions into action, causing action-oriented people to be more decisive and to show more initiative. State-orientation is a tendency towards hesitation, which means state-oriented people are more prone to be indecisive (Jostmann & Koole, 2007). Action- and state-oriented

people differ in the way they adapt to demanding situations. Action-oriented people adapt positively to increases in demands, meaning that high-level goals and intentions have more influence in guiding ongoing behavior. State-oriented people on the other hand, adapt negatively to increases in demands. As a result, high-level goals and intentions do not guide ongoing behavior (Koole, Jostmann & Baumann, 2012).

Until now, no research has been done to investigate the relation between action-versus state-orientation and the choice overload effect. This study focusses on action- and stateorientation, because underlying processes that play a role in the choice overload effect often differ for action- and state-oriented people, indicating that action- and state-oriented people respond differently to choice overload situations. In particular, action- and state-oriented people differ in the extent to which they experience regret (McElroy & Dowd, 2007), a factor that has shown to decrease satisfaction in choice overload conditions. In the study by McElroy and Dowd (2007), state-oriented individuals reported relatively high levels of regret in situations that involved action or inaction. Action-oriented people only reported similarly high levels of regret in situations that involved inaction, but remarkably lower levels of regret in situations that involved action. Thus, state-oriented people experience regret regardless of the situation (action or inaction), and action-oriented people experience regret only in situations that are inconsistent with their action-orientation (inaction). The study of Iyengar and Lepper (2000) showed that people experience more regret when choosing from a large set of options. Since choosing an online dating partner is a situation that requires people to act, it is expected that state-oriented people experience more regret than action-oriented people after making their decision. Subsequently, because differences between action- and state-oriented people are mainly found under demanding situations (Koole, Jostmann & Baumann, 2012), it is expected that this effect will be predominantly present in the choice overload condition where

making decisions is considered harder than in the no choice overload condition (Iyengar & Lepper, 2000).

Another difference between state- and action-oriented people is the way they process information. State-oriented people have the tendency to use all the information that is present, whereas action-oriented people ignore unnecessary information (Beckmann & Kuhl, 1984). Also, state-oriented people remember more irrelevant information than action-oriented people. This finding corresponds with two findings on the choice overload effect. First, Reutskaja and Hogarth (2011) state that an increase in choice variety initiates confusion and induces higher evaluation costs. Second, Lenton and Francesconi (2010) found that an abundance of choice leads people to process information superficially. These studies indicate that the choice overload effect is moderated by the number of variable attributes presented with a choice. The number of variable attributes is generally high on dating websites. Therefore, in choice overload conditions state-oriented people are likely to use all the presented information, whereas action-oriented people are likely to use only relevant information. Consequently, state-oriented people probably experience more confusion in choice overload conditions than action-oriented people, resulting in less choice satisfaction.

Another consequence for state-oriented people is that processing most of the information present is likely to result in an overloaded working memory. Indeed, action– and state-oriented people differ in their performance when high working memory capacity is required (Jostmann & Koole, 2006). Action-oriented people perform better when high working memory capacity is required, whereas state-oriented are more likely to "choke under pressure". Action-oriented people are more likely to perform better because they utilize their working memory capacity more efficiently with increasing demands, and therefore consider high demands more as a stimulation. State-oriented people utilize their working memory capacity with increasing demands and are therefore likely to perform worse

when working memory is overloaded. Consequently, it is expected that state-oriented people will process information not as good as action-oriented people. Since more information is being processed less efficiently, state-oriented people are more likely to encounter limited working memory, a key component of the Cognitive Load Theory (Paas, Tuovinen, Tabbers & van Gerven, 2010). In conditions with an abundance of information, the cognitive load caused by information overload, causes people to be less satisfied after making a choice (Lenton & Francesconi, 2010 & 2011). Additionally, working memory overload has been associated with feelings of regret (Bullens, van Harreveld & Forster, 2011). Therefore, it is expected that state-oriented people will be less satisfied with their choice in choice overload conditions.

The present study

The purpose of the study is to investigate the effect of choice overload on satisfaction in an online dating context, with individual differences in decisiveness as a moderator. Participants of the study will choose a potential partner from a dating website with 24 dating profiles in the choice overload condition, and 6 dating profiles in the no choice overload condition. These quantities are based on research showing that satisfaction with a task decreases as the number of attributes on which information was provided, increases from 5 to 25 (Malhotra, 1982). Also, earlier studies that provided support for the choice overload effect used a division of 6 stimuli in the no choice overload condition versus 24 stimuli in the choice overload condition (Iyengar & Lepper, 2000) & (D'Angelo & Toma, 2017). The satisfaction of the selected dating partner will be measured directly after his/her selection, and one week after. This time frame is based on the time frame used in the study by D'Angelo and Toma (2017), because it provides participants time to unfold rumination and feelings of regret, and therefore increases the possible impact of choice overload and decisiveness on choice satisfaction. Participants' satisfaction will be measured at Time 1 and Time 2, the predictions made in the hypotheses concern the satisfaction of Time 2 and the difference of Time 1 and Time 2 (Time 1 – Time 2). We expect to find an interaction effect of the quantity of choice condition (condition) and action-versus state-orientation on satisfaction, as well as a main effect of condition on satisfaction. The expectations are translated into six - and subdivided in four hypotheses:

In no choice overload conditions increases in demands are less likely to appear. Therefore, it is expected that there is no difference between action-oriented and state-oriented people in adaption to no choice overload conditions, leading action- and state-oriented people to experience the same level of choice satisfaction.

H1a: There is no difference in choice satisfaction between action-oriented and stateoriented people in no choice overload conditions.

Increases in demands are likely to appear in choice overload conditions. State-oriented people adapt negatively to increased demands (Koole et.al., 2012), making them more vulnerable to experience less satisfaction in choice overload conditions. Moreover, state-oriented people have a stronger tendency to experience regret (McElroy & Dowd, 2007), especially when choosing from a large set of options (Iyengar & Lepper, 2000), implying less satisfaction with more options. State-oriented people are also inclined to experience impeded working memory capacity, because of information overload in choice overload conditions, negatively affecting people's choice satisfaction in choice overload conditions (Lenton & Francesconi, 2011 & 2010).

H1b: Action-oriented people are more satisfied with their choices than state-oriented people in choice overload conditions.

Action-oriented people experience low levels of regret in situations involving action, process information efficiently (Beckmann & Kuhl, 1984) causing low levels of working

memory overload (Jostmann & Koole, 2006), and hence experience equal choice satisfaction in choice overload conditions and no choice overload conditions.

H2a: There is no difference in satisfaction for action-oriented people in choice overload conditions compared to no choice overload conditions.

State-oriented people show a decrease in their ability to utilize working memory in situations where they need to act (Jostmann & Koole, 2006). Moreover, they adjust negatively to increases in demands, making choice overload conditions less favorable for state-oriented people.

H2b: There is a decrease in satisfaction for state-oriented people in choice overload conditions compared to no choice overload condition.

The study by D'Angelo & Toma (2017) has shown that people need time to ruminate for the choice overload effect to appear. They used a time frame of one week, which we will also use. Based on this finding we expect that the satisfaction difference between Time 1 and 2 can be predicted by the condition, decisiveness and the interaction of the two.

H3: The condition, decisiveness and the interaction of them are significant predictors of satisfaction difference between time 1 and time 2.

The choice overload effect states that people experience more satisfaction when choosing from a small set of options compared to a large set of options (Iyengar & Lepper, 2000). We therefore expect the same pattern in our study.

H4: Satisfaction scores are higher in the no choice overload condition compared to the choice overload condition.

Method

Participants

Participants were recruited through the network of the researchers to increase the likelihood of participants doing both parts of the study, since the study is longitudinal. The study consists of N = 88 (Nmale = 36 and Nfemale = 52) Dutch participants with an average age of M = 24.16, SD = 2.21. As compensation for participating in both studies, participants were given the option to participate in a lottery for a chance to win a Bol.com gift card. The prize pool consisted of two cards valued at \notin 50 and two cards at \notin 20.

Procedure and design

The current study is a two-group (choice overload vs no choice overload) between and within (time 1 and time 2) subjects design with individual differences in decisiveness as a moderator and satisfaction as the dependent variables. Participants were randomly assigned to a no choice overload (6 dating profiles) or choice overload condition (24 dating profiles). The extent to which participants are decisive was measured at the end of the study to limit awareness about their own level of decisiveness during the study.

The study is longitudinal; participants took part in the study at two times (Time 1 and Time 2). The second part of the study was one week after the first. At Time 1 participants received a form of consent informing about the study. Then, participants read the cover story, researchers' contact information and the procedure of the study. The cover story informed them that we were testing the beta version of an online dating website, to decrease awareness of the fact that we were measuring their choice satisfaction. Then, participants were provided with a link to the dating site (on Qualtrics). There they filled in demographic information, personal interests and answered 6 questions about attitudes towards and experience with online dating. Participants were either presented with 24 profiles in the choice overload

condition or with 6 profiles in the no choice overload condition. At the end of the first appointment the participants were asked to select one dating profile they liked most and would like to go on a date with. The question if participants would go on a date was hypothetical, since participants were not able to date their option (they were debriefed about this). After their selection, participants answered questions about the satisfaction with their choice. At Time 2 participants were presented with their choice by filling in the name of their chosen profile of Time 1 and were again asked about the satisfaction with their choice. During the week in between, participants did not have the possibility to change their choice. After their satisfaction was measured, participants ' decisiveness was measured. The data of Time 1 and Time 2 was matched by asking participants to fill in their email address in both studies. The email addresses were used to remind participants to participate in study 2 and notify them in case of winning a Bol.com gift card. The email addresses were disconnected from the data after participants took part in study 2, ensuring anonymized data collection.

Stimuli

Participants were randomly exposed to the stimuli of either the no choice overload (6 dating profiles) or choice overload condition (24 dating profiles). The stimuli were dating profiles consisting of a photo of the persons face, age, study and two hobbies/interests. The 24 male and 24 female dating profiles were completely fictional and created just for this experiment. Photographs were gathered from stock photo websites, the Karolinska Directed Emotional Faces Database and the Radboud Faces Database. The website displayed one dating profile per page and provided participants with arrows to the right and left, so participants were able to see the same profiles multiple times. The dating website wasn't designed to look like a popular online dating system, since participants were testing the beta version of a new dating program. The standard look and feel settings of Qualtrics were used in

this study. To ensure that the average level of attractiveness was equal in the choice overload and no choice overload condition, the profiles were rated on attractiveness by a pretest.

Measures

The independent variable decisiveness was measured with Kuhl's action control scale (ACS-90), (Kuhl, 1994). In this study only the decision-related action orientation (AOD) subscale, containing of 12 items, was used to measure decisiveness versus hesitation. The scale gives hypothetical statements with two options of possible reactions (*"When I have an obligation to do something that is boring and uninteresting: A. I do it and get it over with. B. It usually takes a while before I get around to doing it."*), 'A' being the action-oriented answer and 'B' the state-oriented. The reliability of the AOD subscale measured at Time 2 is moderate, $\alpha = .73$.

The dependent variable choice satisfaction with the potential dating partner was measured with six questions (e.g. "*how satisfied you are with your selected partner*?"). Also, other unrelated questions to satisfaction were asked about the website to fit the cover story. Choice satisfaction was measured on a 7-point Likert Scale, on which option 1 indicates "not at all" and option 7 "extremely". The reliability of choice satisfaction at Time 2 is high, $\alpha =$.89.

The analysis controlled for five covariates that might affect choice satisfaction:

- a belief in romantic destiny (*do you believe in soulmates?*), has shown to lead to more positive illusions, and thus more satisfaction with romantic partners (D'Angelo & Toma, 2017);
- previous experience with relationships (how many serious relationships have you had until now?), can affect perceptions of new partners (D'Angelo & Toma, 2017);

- previous experience with online dating (*have you met people through online dating*?); may make people more at ease when using dating programs (D'Angelo & Toma, 2017);
- 4. tendency towards using online dating (*do you see yourself online dating in the future?*), can control for a stigma people have of using dating programs (D'Angelo & Toma, 2017);
- 5. the ability to use online dating to find romantic love (*I can use online dating to get what I want*), is the capability to use and navigate through dating programs, because online daters who are less or incapable of using dating programs might react negative to the dating scenario.

Analysis

A Multiple Regression Analysis with Hayes' process tool was conducted to analyze the collected data. The analysis checks for a moderation effect of choice- versus no choice overload and decisiveness on choice satisfaction and the difference of choice satisfaction between Time 1 and 2. The analysis also checks for a main effect of choice- versus no-choice overload, while controlling for the five covariates. Gender was not used as a covariate because adding it to the analysis violated the homogeneity of variances assumption.

Results

Prior to testing the hypotheses, a moderated multiple regression analysis using Hayes' process tool was run on the satisfaction of Time 1 to test if the effect of choice overload and decisiveness occurred immediately. The expectation was that no significant effect occurred, since our prediction states that people need time to ruminate for the choice overload effect to occur. The *F*-test measures whether satisfaction can be predicted from the condition and level

of decisiveness. The *F*-test includes an interaction effect while controlling for the five covariates. As expected, the model is not significant, F(8, 79) = 1.34, p = .24. A significant main effect was found for condition, t(86) = 2.49, p < .01. Contrary to the expectation, people showed more satisfaction in the choice overload condition (M = 5.02, SD = .86) than in the no choice overload condition (M = 4.53, SD = .96). No main effect was found for decisiveness (action- or state-orientation), t(86) = .49, p = .62. Also, no interaction effect of condition and decisiveness was found, t(86) = .01, p = .99. None of the covariates were significant.

We hypothesized that one week after selecting a mate, there is no difference in choice satisfaction between action-oriented and state-oriented people in no choice overload conditions (Hypothesis 1a), and that action-oriented people are more satisfied with their choices than state-oriented people in choice overload conditions (Hypothesis 1b). To test these hypotheses, the same analysis as for Time 1 was executed to measure differences in satisfaction a week after mate selection. The analysis of the model shows a non-significant effect *F* (8, 79) = .91, *p* = .51. However, like the analysis for Time 1, a significant main effect for condition was found, *t* (86) = 2.57, *p* < .05. Participants in the choice overload condition showed more satisfaction (M = 4.98, SD = .84) than participants in the no choice overload condition (M = 4.50, SD = .96), failing to support hypothesis 4. We found no main effect for decisiveness, *t* (86) = -.25, *p* = .80. The interaction effect of condition and decisiveness on satisfaction was not significant at Time 2, *t* (86) = .11, *p* = .91. None of the covariates were significant. Therefore, our results do not support hypotheses 1a, 1b, 2a, and 2b.

To test whether condition, decisiveness and the interaction of them are significant predictors of satisfaction difference between Time 1 and 2 (hypothesis 3), we ran the same multiple regression analysis using Hayes' process tool with the difference in satisfaction between Time 1 and Time 2 as dependent variable. A new variable was computed by subtracting_Time 2 from Time 1 because we expected lower satisfaction scores at Time 2. The model was marginally significant with F(8, 79) = 1.94, p = .06. The main effect for condition was not significant t(86) = -.22, p = .82. The main effect for decisiveness is also not significant, t(86) = 1.40, p = .17. Furthermore, the interaction between condition and decisiveness is not significant t(86) = -.18, p = .85. Therefore, our results do not support hypothesis 3.

Discussion

In a world where the choices we can make seem infinite and access to internet has provided any activity to be within reach, the number of daily choices we do or do not make have risen enormously. At the start of the third millennium research by Iyengar and Lepper (2000) provided us with the knowledge that more choice is not always better. D'Angelo and Toma (2017) extended this knowledge to selecting a partner in an online dating context. They found that people experienced less satisfaction when selecting a mate from a choice overload condition (24 dating profiles) compared to a no choice overload condition (6 dating profiles). However, our research did not replicate these findings. On the contrary, we found that people reported higher satisfaction with their selected profile when choosing from a large pool of options (24) compared to a small pool of options (6). Moreover, the expected moderation of decisiveness did not occur. As such, we did not find support for the hypothesis that satisfaction varies between action- or state-oriented people depending on whether they experience choice overload or not.

A possible explanation for the non-significant moderation of decisiveness and quantity of choice on satisfaction is that participants did not experience the dating situation as demanding. In particular, state-oriented people adapt negatively to increases in demands, causing their high-level goals and intentions to not guide ongoing behavior (Koole et al., 2012). This means that if the simulated dating experience was not demanding enough, highlevel goals (like dating) were regulated well by ongoing behavior, causing the choice satisfaction of state-oriented people to be higher than predicted. A comparison with the study of D'Angelo and Toma (2017) shows that their participants were to log in on a website where the profiles showed one to three photographs, a series of short-answer (e.g., height, age, ethnicity) and open-ended questions (e.g., about me, last book read). Our study did not require participants to log in and showed only one photograph, name, age, study and two hobbies/interests. The dating scenario in the D'Angelo and Toma (2017) study may therefore be considered more demanding in terms of cognitive processing. It is likely that we would have found a moderation effect of decisiveness if we also included more demanding components in the study. Also, the more extensive profiles are likely to cause higher variety of the profiles, causing state-oriented people to process more information (Beckmann & Kuhl, 1984), leading to more confusion (Reutskaja & Hogarth, 2011) and therefore resulting in less choice satisfaction. Both our choice-underload effect and non-significant interaction effect could be caused by shallow dating profiles that were insufficient to cause confusion and create a demanding situation for state-oriented people to experience less satisfaction in the choice overload condition.

The finding that people experienced more satisfaction in a choice overload condition contradicts the findings of D'Angelo and Toma (2017) that people experienced less satisfaction in the choice overload condition. Dating apps like Tinder and Happn are so widely used that the number of possible mates is seemingly infinite. Therefore, a possible explanation is that our participants are aware of the possibility to view a very large amount of dating profiles in real-life dating programs, influencing their expectation of the number of dating partners they would be shown. The number of dating profiles we provided in both conditions may have been lower than people's expectation, causing our participants to be less satisfied in the no choice overload condition. Moreover, a choice overload condition of 24 profiles is possibly too small for the choice overload effect to occur in a dating context. The no- and choice overload condition were based on the study by D'Angelo and Toma (2017) and Iyengar and Lepper (2000). However, purchasing consumer goods (Iyengar & Lepper, 2000) is not the same as choosing a potential partner. The variety of six dating profiles in appearance, age, hobbies/interests and personal preference is likely to be insufficient to cover people's preferences in a potential mate, whereas choosing from a selection of 6 jams or chocolates most likely is. As a result, we may have identified the choice underload effect instead of the choice overload effect in a dating context, which means that people experience less satisfaction with too little options to choose from. This raises the question why D'Angelo and Toma found support for the choice overload effect, also using six profiles in the no- and twenty-four in the choice overload condition, and we did not. A possible answer to this question is the explanation that the dating situation may not have been demanding enough, resulting in higher satisfaction scores of state-oriented participants.

Limitations and directions for future research

Participants of this study were approached through the social network of the researchers. An inevitable consequence of this type of recruitment is that participants know each other as well. This increases the likelihood of participants discussing the research with each other, even more because the study is about choosing a potential partner; a social endeavor that is typically addressed during conversations in a person's social circle (D'Angelo & Toma, 2017). Since the study is longitudinal, participants had the possibility to discuss their chosen partner with friends, making it likely that participants were judged with their choice. Receiving recognition from friends may have positively affected choice satisfaction. On the contrary, it is likely that receiving negative judgements from friends has decreased choice-satisfaction at Time 2. Both positive and negative judgements from friends

may have moderated the effects of condition and decisiveness on choice satisfaction. Moreover, participants may have learned that other participants were shown dating profiles (choice overload condition) that they had not been shown (no choice overload condition). Possibly, this decreased the satisfaction of participants with friends that glorified a certain profile they had not seen.

Another limitation of this study is that not all participants did study two exactly a week after study one, only N = 40 of the total N = 88 participants. Most of the participants that did not do study 2 in time were one or two weeks late. Consequently, participants might have had trouble reminding the alternative dating profiles. This is undesirable because in order to experience feelings of regret, participants need to remember the alternatives. Even though feelings of regret need time to evolve (Koller & Salzberger, 2012), a period of two to three weeks was possibly to long for participants to remember the other dating profiles. If feelings of regret did not emerge in a large pool of participants, this may have decreased the possibility of finding a main effect of the quantity of choice condition and an interaction effect of quantity of choice and decisiveness on satisfaction. The analysis was run for the participants that did the study 2 exactly a week after study 1, but no significant main effect for quantity of choice and no interaction effect of quantity of choice and decisiveness on satisfaction was found. However, this may have been due to a lack of power.

Since the findings of this study contradict the findings of the study by D'Angelo and Toma (2017), we highly recommend replication of this study to further investigate the choice overload phenomenon in a dating context. A main difference between the study by D'Angelo and Toma (2017) and the current study is the extensiveness of the dating profiles. It is likely that we failed to find a moderation effect of the quantity of choice condition and decisiveness on satisfaction, because the dating simulation was not demanding enough to influence the state-oriented people in the study. Therefore, future research focusing on the effect of decisiveness and choice overload on satisfaction should pay attention to creating situations that are considered demanding. In a dating context, researchers can do this by making dating profiles more extensive and/or by making participants create their own dating profile. Additionally, it is advised to use more dating profiles in both conditions, because it is more in line with common dating programs and preferences in potential partners. We also recommend future research to focus on older daters, since both this study and the D'Angelo and Toma (2017) study focused on student daters. People aged 24 or older make up 73% of the online daters (Romano, 2016), so most of the population has not been researched yet.

Practical implication

The findings of the current study suggest that the satisfaction of an online dater will increase with the number of profiles shown. Dating programs could therefore be advised to increase rather than decrease the number of potential partners shown. Also, the name and slogan of the dating programs could emphasize the large number of potential partners that are available at their program. However, the amount of information provided in our dating profiles was minimal. A dating program with many profiles and a large amount of information per profile may therefore not equal the findings of this study. Considering that a dating program with many profiles and much information per profile can have a negative effect on state-oriented people's satisfaction, as a result of cognitive load (Lenton & Francesconi, 2011).

Conclusion

The search for a romantic partner is one that nearly every human being goes through. In our fast-moving world this process is for a large part transferring to online platforms (Ramirez et al., 2015), which leads us to identify optimal situations for people to take part in online dating. Since long-term relationships correlate with high levels of well-being and happy relationships correlate with happiness in general, mental and physical health (Kamp Dush & Amato, 2005), increasing the possibility to find a potential partner for life in an online dating program is highly important. The personal and potentially societal relevance of this domain make research on this matter vital. Even more so because our study contradicts earlier research, stressing the fact that more research on the choice overload effect in dating contexts is needed.

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Appendix

Satisfaction questions

- 1. Are you happy with the profile you chose?
- 2. Does the person you selected seem nice to you?
- 3. Would you like to meet this person in real life?
- 4. Do you think your selected profile is attractive?
- 5. Are you happy with the profiles that you were offered?
- 6. Do you think the other options were attractive?

Cover story (Dutch)

Welkom!

Dit onderzoek bestaat uit twee delen:

Het testen van een nieuw online dating systeem. Voor deze test vragen we je nu deel te nemen (15 minuten), en nog een keer over een week (5-10 minuten).

Een studie over daadkracht. Voor deze studie zul je een vragenlijst invullen direct na het testen van de dating site vandaag (5 minuten).

Voordat de onderzoeken van start gaan, willen we je vragen om de informatie op de volgende pagina goed door te lezen. Indien je aan de studies wilt meedoen kun je het hokje onderaan de pagina aanvinken.

Wij zijn bezig met het ontwerpen van een online dating systeem dat wordt ontwikkeld voor Nederlandse studenten. Wij willen dan ook jongvolwassenen (20-28 jaar) werven om de bètaversie van het systeem te testen. Je zal een selectie van profielen te zien krijgen met foto's en beschrijvingen van leden van de dating website. Nadat je de profielen bekeken hebt, zullen we je vragen om een potentiële date partner te selecteren. Vervolgens zal je gevraagd worden om het online dating systeem een cijfer en feedback te geven. Na een week zal er nog eens naar je mening over het systeem gevraagd worden. De feedback zal gebruikt worden om het systeem te verbeteren voor de officiële lancering.

Voor de studie over daadkracht word je gevraagd te kiezen uit 12 gedragingen die jou het beste beschrijven.

Dit onderzoek is uitsluitend gericht op jouw mening. Er zijn dus geen goede of foute antwoorden. Tevens is deelname aan dit onderzoek geanonimiseerd en worden de gegevens strikt vertrouwelijk verwerkt en bewaard. Er word je gevraagd naar een email adres om de gegevens te kunnen koppelen met de gegevens van de tweede vragenlijst. Direct na het invullen van de tweede studie worden jouw ingevulde antwoorden ontkoppelt van het ingevulde email adres om anonimiteit te waarborgen.

Deelname aan dit onderzoek is geheel vrijwillig. Je kunt op elk moment stoppen als je dat wilt.

Als dank voor je deelname, verloten we onder alle deelnemers 2 bol.com bonnen ter waarde van 50 euro en 2 bol.com bonnen ter waarde van 20 euro.

Het onderzoek wordt uitgevoerd onder coördinatie van dr. Lottie Bullens, Universiteit Leiden (l.bullens@fsw.leidenuniv.nl). Voor vragen, klachten of andere informatie kun je bij haar terecht.

Ik heb de informatiebrief voor de proefpersoon gelezen. Ik had voldoende tijd om te beslissen of ik meedoe. Ik weet dat meedoen helemaal vrijwillig is. Ik weet dat ik op ieder moment kan beslissen om toch niet mee te doen of te stoppen. Daarvoor hoef ik geen reden te geven. Mijn antwoorden worden anoniem/ gecodeerd verwerkt. Ik geef toestemming om mijn gegevens te gebruiken, voor de doelen die in de informatiebrief staan.