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Research in Progress

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Abstract

Despite constituting one fifth of the population in Europe, elderly people (65+) are the least active group with respect to using the internet and computer-based services. Toward shedding light on reasons for this discrepancy, we adopt in this paper the theory of stereotype threat as a theoretical lens. Stereotype threat theory posits the perception of a social identity threat such as being old and cognitively slow, which in turn results in anxiety, low performance, and avoidance behavior when exposed to a stereotype-relevant situation. Psychological research has resulted in numerous studies that provided evidence of perceived aging stereotypes and their implications on performance, anxiety, and avoidance. Within this research in progress, we transfer this knowledge to the phenomenon of information system (IS) avoidance by elderly people and propose a research model and multi-methodological experimental design in order to investigate the relationship between perceived computer-based stereotype threat by elderly users, computer anxiety, IS performance, and IS avoidance behavior.

Keywords: IS Avoidance, Stereotype Threat, IS Adoption, Elderly, Computer Anxiety

1 Introduction

The importance and market share of information systems (IS) and internet-based services is constantly increasing (ECO, 2015). At the same time, at least in western countries, the proportion of older people in the population shows the same trend (OECD, 2006; Ogozalek, 1991) because of a decrease in mortality due to advancements in the medical sciences and health supply as well as a decline of fertility mainly due to contraception (Plaza et al., 2011). As such, the European Union (EU) has already become the world's oldest region, and according to a projection by Eurostat (2008), the proportion of people above the age of 65 in the population will reach 30% by the year 2050. However, despite better mental conditions and higher education of today's generation 65+ and adults over 50 representing a major proportion of the workforce (Wagner et al., 2010) on the one side, and the huge variety and potential with respect to convenience, information, and leisure of internet-based services on the other (ECO, 2015), internet users aged 55 and over are still the smallest user group by age group in Europe (ComScore, 2015). Most notably, the internet is least used by the elderly (65+) in European countries like Germany (Destatis, 2015) or the United Kingdom (Office for National Statistics, 2016).

Several studies across various disciplines including educational psychology (Dyck and Smither, 1995), health informatics (Alpay et al., 2004), and information systems (Karavidas et al., 2005; Niehaves and Plattfaut, 2014; Wagner et al., 2010) have addressed the issue of significantly low adoption rates of internet-based systems and services among elderly people. All studies stress the potential benefits of internet-based systems and services for this user group, but differ in their provided reasons for the phenomenon, which range from computer anxiety, a lack of computer literacy, general lack of obtaining computational education (Laguna and Babcock, 1997; Temple and Gavillet, 1989), and cognitive difficulties (Sayago and Blat, 2009) to perceived lack of benefit, perceived barriers, and accessibility problems due to physical or sensory limitations (Niehaves and Plattfaut, 2014; Wagner et al., 2010). From a conceptual standpoint, the adoption inhibitors reported in previous studies can be categorized into three main categories: Physiological barriers on the side of the users, technological barriers on the side of the system, and psychological barriers such as computer anxiety on the side of the users.

Combining psychological research on behavioral reasons and consequences of anxiety with cognitive deficiencies related to performance of a socio-demographically similar and potentially stereotyped group results in the theoretical perspective of stereotype threat theory (Steele, 1997; Steele and Aronson, 1995; see Inzlicht and Schmader (2012) for an overview). This theoretical perspective posits that social stereotypes toward a group (e.g., elderly people lacking cognitive capability) trigger a sensitivity towards cues (situations or objects) that could lead to any form of experienced stereotyping and thus represent a threat to self-worth (Steele, 1997; Steele and Aronson, 1995). Research in the area of stereotype threat yielded interesting findings regarding stereotype threat experiences by elderly people that are mostly related to a lack of cognitive capabilities or memory performance (Chasteen et al., 2005; Levy, 1996; Levy and Langer, 1994; see Chasteen et al. (2012) for a review) and lead to anxiety (Abrams et al., 2006; Laguna and Babcock, 1997) and behavioral avoidance of stereotype relevant cues (e.g., cognitively challenging tasks) (Wheeler and Petty, 2001). In simple terms, stereotype threat theory explains how the perception of the social stereotype of being old, slow, and having low cognitive capabilities leads to low performance, anxiety, and avoidance of stereotype-relevant cues.

Transferred to the previously described phenomenon of low adoption rates of computer- and internet-based services by elderly users, we introduce a research design based on a longitudinal experimental setting that explicitly aims at investigating the coherence between perceived stereotype threat, computer anxiety, IS performance, and IS avoidance behavior. With this project, we expect the following contributions: First, empirical evidence on the impact of perceived computer-based stereotype threats on IS behavior (avoidance) and IS performance, second, an alternative theoretical perspective on IS avoidance behavior by elderly people, third, introduction of stereotype threat as a new inhibitor of IS adoption and use, and fourth, an approach to objectively measure and compute IS avoidance behavior.

2   Theoretical Background

2.1   Stereotype threats

The first definition of the term stereotype can be traced back to Lippmann (1922), who according to McCauley, Stitt, and Segal (1980, p. 195) "defined stereotype as an oversimplified picture of the world, one that satisfies a need to see the world as more understandable and manageable than it really is". This tendency to create categories in the mind where people are subordinated to and prejudged by the traits associated to the category is also known in the cognitive sciences as a helpful heuristic that does not necessarily have a prejudiced nature, but is certainly prone to prejudging individuals by unconsciously subordinating them into a certain category on the basis of specific characteristics they possess (Braithwaite, 1986; Hess et al., 2004; Kite et al., 1991; McCauley et al., 1980). Regarding common stereotypes about elderly people, for instance, recent literature reports negative beliefs about memory and cognitive capabilities (Chasteen et al., 2005; Hess et al., 2004; Levy and Langer, 1994; Rahhal et al., 2001; Yoon et al., 2000) and low performance (Abrams et al., 2006; McCann and Giles, 2002). Stereotype threat theory (Steele, 1997; Steele and Aronson, 1995), a theoretical lens established across diverse contexts with its origins in the last decade of the past century (Inzlicht and Schmader 2012), posits that the evocation of an omnipresent negative stereotype (e.g., that elderly people are intellectually inferior to younger people) potentially triggers a "burden of suspicion" - as described by Abrams et al. (2006) - that acts as a threat to its members. This effect is evoked by the "mere recognition that a negative group stereotype could apply to oneself in a given situation" (Steele, 1997, p. 617). Thus, the negative stereotype does not need not be believed, but has to be mentally present (Abrams et al., 2006). Slight changes in testing situations creating stereotype threat can lead to significant differences in performance on relevant tests of performance (Abrams et al., 2006). Steele and Aronson (1995), for instance, showed in their study that when instructions contained a description of a test as 'ability diagnostic,' African American students underperformed in comparison to European American students. Schmader (2002) showed the same effect with respect to women's math performance.

Shapiro and Neuberg (2007) developed a multi-threat framework, consisting of the two dimensions source and target of the threat. Given the research designs of the majority of studies on stereotype threat effects on elderly people, the specific category of self-concept stereotype threat is of particular relevance. Regarding source and target of the threat, self-concept stereotype threats are defined as "fear that my behavior will confirm, in my own mind, that the negative stereotypes held of my group are true of me" (Shapiro and Neuberg, 2007, p. 113). Transferred to an example in the IS domain, this implies the fear that one's behavior (e.g., using a computer) confirms the justification of negative stereotypes (e.g., low performance in a computer task). Thus, in order to experience the stereotype threat, it is not necessary to identify with the stereotype, but one simply needs to be aware of the stereotype. This implies a so-called awareness of collective representations (Steele, 1997). With respect to stereotype validity, Chasteen et al. (2012) add that, unlike other potentially stereotyped groups such as black males, elderly tend to consider the stereotypes about them valid. They form their assessment of elderly people being slow and cognitively limited in younger years, and when they turn older, they are inclined to maintain this view and to relate it to their self-concept. This, in turn, makes elderly people particularly susceptible to the perception of self-concept stereotype threats compared to other potentially devalued groups that reject stereotypes about them. Taking a broader perspective on stereotype threat as a concept, stereotype threat and its psychological and behavioral implications can be viewed within the framework of coping models (Lazarus and Folkman, 1987). According to several theoretical perspectives on coping with stereotyping (e.g., Major and O'Brien, 2005), stereotype and social identity threat, once appraised, result in physiological, emotional, cognitive, and behavioral reactions that are distinguished along the lines of voluntary and involuntary responses (Inzlicht and Kang, 2010). Within the following subsections, we distinguish between involuntary responses of stereotype threat (performance and anxiety) and voluntary responses (avoidance or disengagement behaviors).

2.1.1   Involuntary responses of stereotype threats

<u>Performance-based implications:</u> With respect to involuntary consequences, the impact of stereotype threat perception on performance is comparably well-researched. Levy and Langer (1994) and Yoon et al. (2000), for instance, found that older adults who held more positive beliefs about aging performed better in cognitive tests, whereas those with negative beliefs performed significantly worse. Levy (1996) further used priming and showed that elderly people performed worse on a memory test when they were primed with negative (e.g., old, slow) rather than positive (e.g., experienced, wise) stereotypes. Further, both Levy (1996) and Stein and Blanchard-Fields (2002) revealed implicit stereotype activation effects on the performance of older but not younger people. Beside these priming procedures, it is also conceivable that simply placing older adults into a situation in which negative stereotypes about aging and cognition are activated can affect their performance (Chasteen et al., 2005).

Apart from stereotypes on aging and memory performance, a prominent paper on the effect of stereotype on performance has been published by Steele and Aronson (1995). They report that African Americans performed worse than Caucasians on a test of intelligence when participants were first told that the test would be an intelligence test. In contrast, no race differences in performance on the same task were found when participants were told that the test was not diagnostic of intelligence (Abrams et al., 2006; Steele and Aronson, 1995). Schmader (2002) showed a similar effect with male and female college students and revealed that individual differences in gender identification moderated the effects of gender identity relevance on women's math performance. When their gender identity was linked to their performance on a math test, women with higher levels of gender identification performed worse than men, but women with lower levels performed equally to men. By contrast, when gender identity was not linked to test performance, women performed equally to men regardless of the importance they placed on gender identity. These pervasive performance differences between stereotyped groups (e.g., elderly, ethnic minorities, stereotyped gender) and the respective dominant counterpart group (e.g., young, ethnic majorities, non-stereotyped gender) as consequences of stereotype threat are very consistent outcomes in psychology research in general and social identity or memory research in particular (Kite et al., 1991; Silverman and Cohen, 2014;). The general coherence that has been hypothesized in all the above-mentioned studies is that the degree of awareness about one's own stereotyped status has a significant negative impact on one's performance in a stereotype-relevant situation.

<u>Anxiety:</u> Anxiety is one of the first proposed mediators of the relationship between stereotype threat and performance (Abrams et al., 2006). Steele and Aronson (1995, p. 801) hypothesized that "the effect of stereotype threat on performance is mediated by apprehension over possibly conforming to the negative group stereotype". Support for this involvement of anxiety comes from several studies (e.g., Bosson et al., 2004; Spencer et al., 1999), but could not be found in others. Wheeler and Petty (2001, p. 806) thus concluded that "because there are a very limited number of published studies that test for anxiety mediation, more research is necessary before a definitive position can be taken on this issue". Abrams et al. (2006) added that the inconsistent findings may be because the mediating role of anxiety depends on factors that affect how a person will interpret the potential threat. They addressed this issue and demonstrated the mediating effect of anxiety due to stereotype threat on performance. The theoretical explanation for this mediation stems from evolutionary psychology (Neuberg et al., 2010) and coping theory (Lazarus et al., 1987), according to which exposure to a threat (e.g., stereotype threat) leads to emotional distress and strain. If this exposure is anticipated beforehand, it results in an experienced emotion of anxiety. Dependent on the level of anxiety, and thus emotional appraisal, cognitive capacities can become limited and cognitive performance decreases (Eysenck and Calvo, 1992). Further, the involuntary anxiety also builds the bridge to voluntary responses such as avoidance. Feltz (1982), for instance, provides evidence on anxiety affecting avoidance behavior. She explains that anxiety is an emotional response to a threat that an individual experiences, which very likely results in conscious avoidance behavior (e.g., avoiding a test situation if one associates it with a negative stereotype). Thus, the act of avoidance is the voluntary response to the involuntary emotion of anxiety.

2.1.2   Voluntary responses of stereotype threats

With respect to voluntary responses as consequences of stereotype threats, numerous studies suggest that activating stereotypes results in stereotype-consistent behaviors (for an overview see Wheeler and Petty (2001)). In general, literature identified potential voluntary consequences of stereotype threat, such as avoidance, disengagement, or disidentification with the negatively stereotyped domain (Davies et al., 2002; Major et al., 1998; Osborne, 1995). For example, Davies et al. (2002) showed that exposure to stereotypic commercials led female subjects to avoid math items in favor of verbal items, consistent with the stereotype of a gender-based math inability. In a second study, female subjects who viewed the stereotypic commercials indicated less interest in educational/vocational options in which they were susceptible to stereotype threat (i.e., quantitative domains) and more interest in fields in which they were immune to it (i.e., verbal domains) (Davies et al., 2002). Davies et al. (2005) then conducted another study in which the authors showed a similar behavioral outcome: Female subjects exposed to stereotypic commercials showed significant disengagement in a subsequent leadership task.

Evaluating behavioral responses like avoidance to stereotype threat from an emotional standpoint, evolutionary emotional theory posits that because social devaluation in terms of stereotyping represents an evolutionary threat, human beings are genetically programmed to intentionally avoid it, like any threat to their health or self-worth (Buss, 1991; Kurzban and Leary, 2001). As such, avoidance behaviors are natural direct responses to a non-fatal threat, and consistent with both evolutionary theory (Ghiselin, 1973; Neuberg et al., 2010) and models of behavioral coping (Lazarus and Folkman, 1987). In simple terms, individuals avoid domains and situations in which they feel uncomfortable or inconvenient. Both is given in a situation where an individual is exposed to a task, a situation, or an environment that he/she associates with a negative stereotype about his/her own identity, like elderly might do in the context of memory tests, for example. In comparison with involuntary responses to stereotype threats such as performance deficiencies or anxiety, it is important that these occur if an individual is already exposed to a stereotypical situation. If individuals have the choice, it is unlikely that they risk exposure to such situations and they more likely avoid them (Inzlicht and Kang, 2010).

2.2   Related research in IS adoption and diffusion

Following a traditional IS adoption and diffusion paradigm, existent research highlights models and determinants of IS usage by elderly people. For example, the unified theory of acceptance and use of technology (UTAUT) (Venkatesh et al., 2003) explains considerable variance in elderly people's intention to use the internet (Niehaves and Plattfaut, 2014) and variants of the technology acceptance model (TAM) (Davis et al., 1989) illuminate why elderly people intent to participate in video user-created content services (Ryu et al., 2009) or to use e-government services (Phang et al., 2006). While these approaches underline the utility of core usage determinants like perceived usefulness, enjoyment, or ease of use, variables relevant to the specific user group such as computer anxiety (Phang et al., 2006; Ryu et al., 2009) or internet self-efficacy (Lam and Lee, 2006) further add to the explanation of IS usage behavior by elderly people. In terms of how well elderly people solve tasks using IS, cognitive abilities like spatial ability (Pak et al., 2008) and psychological variables such as computer anxiety (Laguna and Babcock, 1997) affect how well elderly people perform in comparison to younger users. While low values in adoption determinants (e.g., a low perceived usefulness) explain non-usage, so-called inhibitors serve the sole purpose of explaining why individuals explicitly resist using the IS (Cenfetelli, 2004). As Räsänen (2008) illustrates, older people tend to stick to incumbent technologies and resist new ones, and Hill et al. (2008) report in a qualitative study cases in which elderly people explicitly resist using the internet. In this paper, we focus on a post-adoption type of resistance called IS avoidance. IS avoidance refers to an individual's preference to avoid working with an implemented IS despite the need and opportunity to do so, which implies the conscious decision of the individual to circumvent using the IS, but no hostile acts like sabotage (Kane and Labianca, 2011). We propose stereotype threat as an inhibitor leading to this avoidance, a variable that has to the best of our knowledge

not yet been examined in this way. However, with IS employees (Guzman and Stanton, 2009), women (Trauth et al., 2009), and black males (Cain and Trauth, 2013) being stereotyped and exhibiting stereotype threat responses like wanting to disprove the stereotype, stereotypes are omnipresent in IS contexts. With respect to stereotypes perceived by elderly people, Marakas et al. (1998) outline the potential negative effects of these perceptions on elderly people's computer self-efficacy. We develop the basic idea of elderly people being stereotyped in IS contexts further in the following and derive a model of their IS avoidance based on stereotype threat theory.

3 Proposed Research Model and Hypotheses

Transferring the theoretical insights of stereotype threat theory to the case of IS avoidance by elderly people results in the research model depicted in the following Figure 1. The great variety of psychological research on stereotype threat responses by elderly people (e.g., Cuddy et al., 2005; Hess et al., 2003; Kite et al., 1991; Levy and Langer, 1994; see Chasteen et al. (2012) for a review) on the one hand, and the reported low adoption rates of information systems by elderly people on the other (e.g., Niehaves and Plattfaut, 2014; Wagner et al., 2010), let us to assume the general applicability of stereotype threat theory on the phenomenon of IS avoidance by elderly people. The observation that elderly are likely to hold general age-based stereotypes since their younger years (Chasteen et al., 2012) further increases the likelihood that these stereotypes are well-developed and exhibit the hypothesized threatening effect in the IS context. Starting in the model's upper left corner, a perception of stereotype threat as operationalized following Chasteen et al. (2005) builds the starting point of our model. The underlying assumption is that information systems usage and skills are typically attributed to the younger generation (Wandke et al., 2012), often referred to as digital natives (Prensky, 2001). This could result in a perception of stereotype threat in the sense that older people are less capable and skilled in interacting with systems, and that interacting with a new system would be harder to learn due to reduced cognitive capacity (Braithwaite, 1986; Kite et al., 1991; Stein and Blanchard-Fields, 2002). This perception of stereotype could - dependent on its manifestation - lead to the involuntary responses of anxiety and decreased performance if exposed to a stereotype relevant situation (e.g., a computer task). Both, anxiety and performance have been operationalized in IS contexts as computer anxiety (Laguna and Babcock, 1997; Thatcher and Perrewe, 2002) and IS performance (Nelson, 1991). As such, we derive the following hypotheses: H1: Perceived stereotype threat positively impacts computer anxiety. H2: Stereotype threat negatively impacts IS performance.

Regarding the mediating effect of computer anxiety on performance, we build on Eysenck and Calvo (1992), Lazarus and Folkman (1987), and Neuberg et al. (2010) and the general argument that exposure to a threat (in this case operationalized as computer-based stereotype threat) leads to an experienced emotion of anxiety (in this case computer-anxiety). According to Eysenck and Calvo (1992), dependent on the level of anxiety and thus emotional appraisal, an individual is limited with respect to cognitive performance. Further, Thatcher and Perrewe (2002) showed a negative effect between computer anxiety and self-efficacy, a construct that reflects an individual's judgement of his/her capabilities to use computers in diverse situation and thus has definitional resemblance to performance. Thus, the following hypothesis is derived: H3: Computer anxiety negatively impacts IS performance.

As to the direct effect of perceived stereotype threat on IS avoidance, we use the argument of voluntary reactions to stereotype threat basing on the findings by Davies et al. (2002), Major et al. (1998), and Osborne (1995). All authors showed that the perception of stereotype threat leads to general withdrawal behaviors such as avoidance or disengagement. Further support for this coherence comes from research in the field of evolutionary psychology that posits that the reaction to a non-fatal threat is immediate avoidance (Neuberg et al., 2010). We thus hypothesize that the same holds true for computer-based stereotype threats and IS avoidance. With respect to the direct effect of computer anxiety on IS avoidance, support of computer anxiety as a potential driver of IS avoidance by elderly people is provided by Ellis and Allaire (1999), who found a significant negative effect between computer anxie-

ty and computer interest. This results in the following two hypotheses: <u>H4:</u> Perceived stereotype threat positively influences IS avoidance. <u>H5:</u> Computer anxiety positively influences IS avoidance

Regarding the direct effect of IS performance on IS avoidance, we base on literature from educational and social psychology. Middleton and Midgley (1997), for instance, showed in a sample with 703 6th graders that avoiding the demonstration of a lack of ability represents a motivational goal. This finding was confirmed by studies of Darnon et al. (2007) and Midgley et al. (2001). In addition, research in stereotype threat theory supports the argument that negative performance partially mediates the effect of perceived stereotype threat on avoidance behavior in the sense that if an individual once experienced negative performance in relation to a stereotype threat, he/she will avoid the threat-relevant situation in the future (Brodish and Devine, 2009; Steele and Aronson, 1995). On the other hand, if one has experienced a good performance, avoidance behavior is unlikely. Thus, our last hypothesis is as follows: <u>H6</u>: IS performance negatively influences IS avoidance.
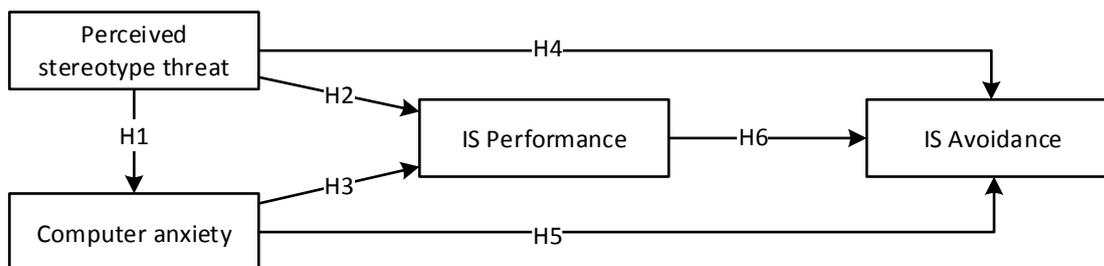

Figure 1.   Research model

4   Proposed Research Design

In order to test our hypotheses, we suggest a three stage multi-method choice experiment as illustrated in Figure 2. The context of the experiment is the execution of 2-3 tasks on a representative e-government website of a fictive German municipality (e.g., filling out a form for requesting the collection of bulk garbage, finding the opening hours of the municipal office). Although a fictive scenario, German municipalities offer such services to their citizens increasingly online and the experimental website was developed based on real world examples. We chose this scenario because of the general pressure by the EU to enhance e-government services and make them exclusively available online (EU 2006), which brings the need for all citizens to retrieve them electronically. The age group of the participants is 65+ and recruiting of participants is conducted by means of existing university panels, from which elderly people are normally recruited for memory tests. In order to isolate effects that are unique to the elderly, we also invite a control group with participants younger than 65. In principle, it is conceivable, for example, that individuals in their 40s or 50s, who are neither digital natives with respect to the internet, exhibit age-based stereotype threats and associated consequences, too. Toward representative results, we also intend to balance experienced and unexperienced participants from the panel. Computer experience affects usage decisions of the elderly (Wagner et al. 2010), and we thus furthermore control for this factor in our model. In the pre-experimental stage, participants are welcomed and told that they will participate in a computer performance test. They subsequently fill out a questionnaire that asks for their age, gender, marital and educational status as well as conduct a test for mental restraints (e.g., Alzheimer Disease). We further control for computer experience and general attitude towards computers within this questionnaire. The scales for stereotype threat are adapted from Chasteen et al. (2005), the scales for computer-anxiety from Thatcher and Perrewe (2002). After having completed the questionnaire, participants proceed to the experimental stage, in which they engage in a 5-minute free-play period first in order to explore the website and afterwards perform the predefined tasks on the computer. During the tasks, the interaction with the e-government website is logged so that the time and the outcome of the tasks are objectively recorded. Subsequently, the participants are released and re-invited for the next day. The next day, participants are confronted with a task that

resembles the tasks from the experimental stage. This time, however, participants are given the choice whether they would like to use the e-government website or the traditional paper-based channel. Participants are thereby given the opportunity to employ a previously used system for a task they need to complete, but are free to consciously decide to circumvent and avoid its usage and thereby to exhibit IS avoidance behavior in the sense of Kane and Labianca (2011). The avoidance-choice of each participant is recorded and coded as a binary variable. We explicitly chose this procedure because compared to self-reported behavioral intention measures, real choices have higher external validity (Chandon et al., 2005) and avoid common method variance (Straub and Burton-Jones, 2007) in our case. Because of the categorical dependent variable, we consider logistic regression as statistical analysis method.
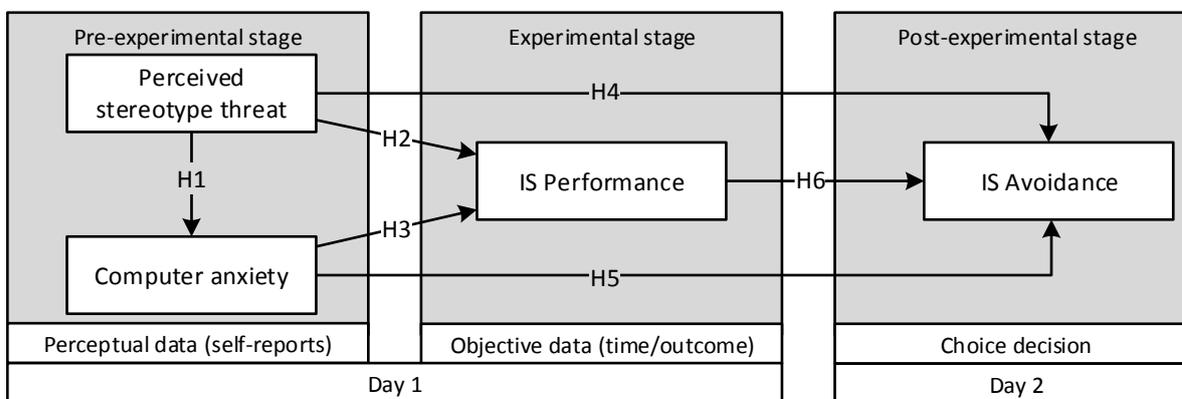

Figure 2.   Proposed experimental design

5   Discussion of Further Steps and Expected Results

It is well acknowledged that the elderly have the lowest adoption rates of IS. With our proposed experiment, we address this issue by explicitly focusing on active avoidance behavior due to perceived stereotype threat, computer anxiety, and lowered performance. With respect to research in IS adoption and diffusion, the theoretical perspective of stereotype threat as a driver of IS avoidance or disengagement represents a new theoretical concept to the field. The results of our experiment will shed light on the question if - alike memory or performance-based stereotype threat effects - IS and computer usage can represent a stereotype threat to elderly people which results in anxiety, lowered performance, and avoidance. If computer-based stereotype-threat effects can be proven in our experiment, this would provide new insights into how avoidance and rejection behaviors can be prevented. The general relationships that we propose within this research are well researched in the fields of educational and social psychology, and highly applicable to the IS contexts, as discussed by Ellis and Allaire (1999), for instance. Further, the fact that we use a choice experiment and thus observe real behavior makes our approach superior to intention-based self-reports in the endogenous variable. In general, we aim at contributing to research in IS adoption and diffusion by introducing both a new theoretical perspective and variable to the field (perceived stereotype threat) and by investigating its relationship to established variables (computer anxiety, performance). Further, we aim at demonstrating how choice experiments can be a valuable alternative to traditional self-report measures. However, the generalizability of our results will be limited by the experiment's focus on a scenario most likely to occur in a developed country. The experiment design neglects, for example, economic and infrastructural constraints like internet service costs and network failures. It thereby assumes that individuals are not restricted in their choice by such factors. From a broader perspective, the relative importance of stereotype threat in the overall avoidance decision will be an interesting avenue for future research.

At the time of reporting this research in progress, we have already successfully raised research funds and recruited participants. We expect the experiment to take place in the first quarter of 2016 with a sample size close to 300 participants, 100 in each of the groups described in section 4.

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