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Beyond the Screens: Psychological Well-being and Extraversion Role in the Relationship between Technostress and Quality of Social Interaction

Afonso de Campos Fundão

Master's Degree in Social and Organizational Psychology

Advisor:
Professor Patrícia Costa, Assistant Professor, Department of Human Resources and Organizational Behavior
Iscte – Lisbon University Institute

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CIÊNCIAS SOCIAIS
E HUMANAS

Department of Social and Organizational Psychology

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Resumo

Numa sociedade repleta de tecnologia cada vez mais avançada, é mais comum pessoas sentirem maiores níveis de stress derivado destas, tanto no trabalho como no seu tempo privado. Este tipo de stress, designado de tecnostress, não só tem consequências psicológicas negativas, como também tem consequências negativas no comportamento das pessoas com outros, tornando-o num aspeto importante de considerar e evitar quando se tenta contribuir para uma sociedade constantemente a evoluir, mesmo com tantas pessoas diferentes nela. Assim sendo, é essencial compreender melhor como é que o tecnostress impacta diferentes aspetos relevantes na vida de todos. Com isto em consideração, este estudo quantitativo foca-se no impacto que o tecnostress tem sobre a qualidade das interações sociais dos indivíduos e se o seu bem-estar psicológico apresenta um papel de mediação nesta relação. Além disto, porque ninguém é igual, foi estudado se a extroversão modera este efeito indireto. Os resultados foram também comparados entre o contexto organizacional e privado, de modo a aprofundar o conhecimento sobre como este processo ocorre em ambos os contextos. Resumindo os resultados, apesar da extroversão não ter mostrado um papel de moderação, o bem-estar psicológico explicou a relação entre o tecnostress e a qualidade das interações sociais em ambos os contextos, confirmando a importância em criar formas de prevenir o tecnostress e as consequentes diminuições nestes aspetos importantes da vida.

Palavras-chave: Tecnostress; Bem-estar Psicológico; Qualidade de Interações Sociais; Extroversão.

Códigos de Classificação da APA

3365 – Promoção e Manutenção da Saúde e Bem-estar

3660 – Comportamento Organizacional

Abstract

In a society replete with increasingly advanced technology, it is more and more common for people to feel higher levels of stress derived from these, both at work and in their private time. Not only does this kind of stress, designated as technostress, have negative psychological outcomes, but it also has negative consequences on people's behavior towards others, making it an important aspect to consider and prevent when trying to contribute to a harmonious ever-evolving society, even with so many different types of people. Therefore, it is essential to understand better how technostress impacts different relevant aspect in everyone's life. Considering this, the present quantitative study focuses on the impact technostress has in people's quality of social interaction and if psychological well-being has a mediator role in this relationship. Alongside this, and because no person is the same, it was studied if extraversion moderated this indirect effect. The results were also compared between the organizational and private context, to deepen the knowledge about how this process occurs in both contexts. To summarize the results, despite extraversion not showing any moderating role, psychological well-being explained the relationship between technostress and quality of social interaction in both contexts, confirming the importance of creating ways to prevent technostress and the consequent decrease in these impactful aspects in life.

Keywords: Technostress; Psychological Well-being; Quality of Social Interaction; Extroversion.

APA Classification Codes

3365 – Promotion & Maintenance of Health & Wellness

3660 – Organizational Behavior

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Introduction

Innovation and change always originate consequences, and when the digital revolution involved the world with information and communication technologies (i.e., ICTs) in everyone's life, it was no different, with workers starting to feel a wide range of positive and negative consequences due to ICTs (Chen, 2015; Nastjuk et al., 2023), such as feelings of anxiety, tension, or even phobia towards ICTs (Hudiburg & Necessary, 1996, Hudiburg et al., 1999, Marcoulides, 1989).

One other negative consequence of ICT usage is technology-derived stress, commonly referred to as technostress (Brod, 1984), which has been heavily studied (e.g., Maier et al., 2015; Ragu-Nathan et al., 2008; Tarafdar et al., 2007) in order to determine what are the impacts it has on people's jobs (i.e., organizational context) and everyday life (i.e., private context). This concept has seen remarkable growth in studies since the even stronger normalization of ICTs' continuous usage in the work routine due to COVID-19 (Bahamondes-Rosado et al., 2023). So, it's only natural that literature starts to lean into some variables more than others, despite focusing on mainly two types of consequences: (a) psychological outcomes; and (b) behavioral outcomes (Nastjuk et al., 2023).

Well-being is a very broad and constant variable when studying people, but its application in many different fields of investigation makes it an overlapping concept with various terminologies (Rohde et al., 2019). Recently, some authors started to connect technostress to psychological well-being (PWB) in order to better understand how exactly this type of stress would impact a human aspect as important as the PWB of an individual, similar to types of stress (Araoz et al., 2023; Asad et al., 2023; Ryff & Keyes, 1995).

On the behavioral side, it is known how important social relationships are to various aspects of one's life, since differences in social support in the organizational context, job performance, and higher levels of PWB partly depend on it (Maier et al., 2014; Pirdaus et al., 2024; Ryff, 1989). With this in mind, Sun et al. (2020) related well-being with different aspects of social interaction, being the one that will be approached in this study the quality of social interaction (QSI), due to not every social interaction being the same (Baumeister & Leary, 1995).

Lopes et al. (2005) had posed an important question about predictors in social interactions, about the influence that personality traits could have in these interactions. This is a relevant question due to the presence of different personalities, but mainly on the extraversion trait, considering its importance to social interactions (Sun et al., 2020).

All these variables have diverse associated aspects that change how they behave, being how they're measured, the context they are, or just different views about the very similar concepts. So, it's something to take into account when exploring these.

Considering all the said above, this study will explore how these variables relate to each other on a new moderated mediation model and mediation model based on previous literature, while comparing possible differences between the results, in order to contribute to a next step in technostress investigation, while adding some knowledge to PWB and QSI literature.

1. State of the Art

1.1. Technostress

Before addressing the concept of technostress, it's better to understand how the "simple" stress morphed into this modern concept.

Psychological stress is synthesized by Hobfoll (1989) in the Conservation of Resources model (COR) as a reaction to the environment due to lack of resources, be it because of potential or actual loss of resources, or even for not gaining enough resources after investing resources. Then, inside the organizational context work-related stress exists a negative response of workers when they have too many demands upon them at work, being too much for them to handle with the resources they have at that moment in time, as explained in the Job Demands-Resources theory (JD-R) (Bakker et al., 2023; Camacho & Barrios, 2022). Also, depending on differences in intensity, duration, and even the temporal pattern of the said demands, this work-related stress can lead to negative psychological and behavioral outcomes, decreasing the well-being of the individuals (Burns et al., 2016).

Leading to more and new demands, these higher levels of stress related to technology started to be identified as technostress (Dragano and Lunau, 2020; Ragu-Nathan et al., 2008). The first time the word technostress was used, it was defined as "a modern disease of adaptation caused by an inability to cope with new computer technologies healthily" (Brod, 1984, p. 16). Since then, even though some studies use other variations, this definition remains the most used (Nastjuk et al., 2023).

Over the years, several studies were conducted to better understand the antecedents and consequences of technostress (e.g., La Torre et al., 2019; Ragu-Nathan et al., 2008; Tarafdar et al., 2007). In this process, Ragu-Nathan et al. (2008) first operationalized it, based of five conditions referred to as technostress creators. These conditions are related to psychological and behavioral outcomes, and studies have been using them to analyze the variable, either in organizational or private context (Nastjuk et al., 2023).

To better understand how the COR model and the JD-R theory explain the concept of stress and integrate in this study, the next sections will approach both models, and how they frame technostress.

Conservation of resources model

One of the theoretical streams that tries to conceptualize stress is the COR. This model is based on the belief that people are motivated and thrive to keep, protect, and build resources, and that

the potential of losing, or actually losing these resources, is a threat people must face (Hobfoll, 1989, 2002).

Hobfoll (1989) defines resources as either objects (e.g., car, home), conditions (e.g., job, marriage), personal traits (e.g., self-esteem) or energies (e.g., time, money) that are valued by a person, or are needed to achieve more resources. Unlike other models that focus on a specific resource, the COR model perceives resources as a part of a bigger process, directly associated with well-being, through the gain and use of various resources (Hobfoll, 2002). Thus, the acquisition and preservation of resources act as the main motivation for people to avoid stress and maintain well-being (Hobfoll, 2002). It's also argued that, in order to achieve all these kinds of resources, one must focus on seeking to create and maintain personal characteristics (e.g., mastery) and social circumstances (e.g., intimacy), instead of acting to just have a chance at getting situational (i.e., here and now) reinforcement (Hobfoll, 1989).

Adapting this model into a more palpable situation regarding technostress, if an employee begins to feel a stressful circumstance (i.e., starting to feel difficulties working with their new devices because of, for example, the high complexity of a new software), they will try to maximize resource gain (i.e., learn to adapt to this new software) while minimizing resource loss (i.e., not wasting too much time learning unnecessary functionalities), according to the COR model (Hobfoll, 1989).

But in order to fully explain the concept of stress, the COR model isn´t enough, so it's essential to approach the JD-R theory as well.

Job demands-resources theory

Being a theory that integrates several perspectives regarding stress and motivation (Bakker & Demerouti, 2017), it makes only sense to include this theory into the study, along with COR.

Demerouti et al. (2001) presented the first proposition for the JD-R, which states that different jobs have specific working characteristics, being these divided into two categories that constantly interact, job demands and job resources (Bakker et al., 2023). While job demands are defined by Demerouti et al. (2001) as aspects of a job (e.g., psychological, social, organizational) associated with either physical or psychological costs (i.e., that require continuous physical, psychological, or cognitive effort), the authors define job resources as aspects of a job (e.g., psychological, social, organizational) with motivational potential (i.e., functional in achieving work goals, that regulate the impact of job demands, and that stimulate learning and personal growth).

Since then, JD-R evolved with the help of other studies, allowing it to become more complex, by adding more propositions and providing a more complete understanding of employee well-being and performance (Bakker et al., 2023).

For example, the model distinguishes two processes: (a) the health impairment process, stating the frequency and severity of job demands deplete various resources due to employee's increased effort and consequent exhaustion; (b) the motivational process, affirming the growth of creativity and performance thanks to job resources and its impact in psychological needs like satisfaction and work engagement stimulation (e.g., Bakker et al., 2004; Demerouti et al., 2001).

This theory also has a buffer and a boost hypothesis, stating, respectively, that job resources weaken the impact of job demands on strain, and that when job demands are high, job resources tend to become more salient, having greater impact on work engagement (e.g., Bakker & Demerouti, 2007; Bakker et al., 2005).

One last characteristic that is important to identify, because of the nature of this study, is the existence of gain and a loss spirals. The gain spiral refers to the fact that individuals with bigger quantity of job resources will be less vulnerable to resource losses because of greater work engagement and proactive behavior and its effects in obtaining more job resources (e.g., Salanova et al., 2010). The loss spiral occurs when people with fewer job resources and increasingly stronger job demands start to self-undermine their work because of exhaustion, increasing the frequency and intensity of job demands (e.g., Hobfoll et al., 2018). This last conclusion about the spiral loss is important because of the process that it follows (i.e., starting at the increase of job demands, decreasing well-being, which will undermine the employee behavior and crate more job demands), creating this loop of loss.

Again, to give an example of a hypothetical situation about technostress, if two workers who got the same job demands at that moment (e.g., role ambiguity due to having new functions regarding Information and Communications Technologies [ICTs]) have different levels of job resources (e.g., one gets co-worker support, and the other doesn't), is expected that the one with higher job resource deals better with the job demands, not affecting the well-being so much as the one without that high level of job resource. This decrease in the well-being of the worker with less job resources will then undermine their work, being then more difficult to get rid of this loop of loss, according to JD-R (Bakker et al., 2023).

Incorporating the COR model in the JD-R theory

After going through both models, it's easier to understand how these two connect, to better explain how they fit into this study.

Similar to the COR model (Hobfoll, 1989), these job resources have distinct characteristics and aspects about them, as being helpful in achieving work goals, stimulating personal growth, and having different values for every worker. Despite this, there is one different characteristic in the JD-R: job resources can reduce job demands and associated psychological and physiological costs, being then essential to deal with job demands (Bakker & Demerouti, 2007).

As it may have transpired, the JD-R has a very organizational context, based on the general idea of Bakker et al. (2023) about the evolution of this theory, who never refer another context but the organizational one. However, a study by Mayerl et al. (2016) has revealed that both job resources (e.g., satisfaction with income, career opportunities, work rights) and personal resources (e.g., optimism, self-efficacy and self-esteem) can be measured as a single resources factor, which is negatively related to well-being, therefore personal resources should not be excluded of the resources available to an employee. As such, Mayerl et al. (2016) considered that only focusing on external resources was a flaw on the JD-R, and so, to better study the influence of resources and demands on well-being, it's suggested to incorporate the COR model in the JD-R theory, just as Hui and Aye (2018) did.

In this combined idea, it's possible to recognize that people look not only to attenuate job demands, but also to acquire and accumulate resources, generating more resources in the future and preventing a decrease of well-being (Hui & Aye, 2018).

After going through COR and JD-R and understanding its concepts, it's now possible to address the various aspects of technostress (e.g., context, creators, outcomes), knowing how they interact between them and the other variables in this study.

Organizational vs. private context of technostress

It's important to bear in mind that technostress has different impacts depending on the situational context (Nastjuk et al., 2023). Hence, it's equally important to know what these differences are, to better understand its applicability in both contexts.

While discussing technostress, various authors investigated its effects in organizational context, where it seemed more present and relevant due to outcomes such as role stress, productivity, job satisfaction, turnover intention, and many others (e.g., Califf et al., 2020; Tarafdar et al., 2007). Summing up the ICTs usage in this context, Wu and Lu (2013), described it as mostly productivity oriented (Wu & Lu, 2013), with the objective to increase efficiency and performance (van Der Heijden, 2004). It's also argued that strong and implicit social norms in the work environment attenuate individual beliefs and attitudes, preventing workers from

switching or completely abandon certain ICTs (Ayyagari et al., 2011; Brown et al., 2002; Goodhue & Thompson, 1995).

In the private context, technostress differs in some respects compared to the organizational one (Nastjuk et al., 2023), such as the purpose of ICTs usage, being this mostly leisure and entertainment oriented in the private context (van Der Heijden, 2004; Wu & Lu, 2013), like for example the use of social networking service (SNS) (La Torre et al., 2019) and private smartphone usage (e.g., Lee et al., 2014). In the private context, it's important to note that there is a higher degree of voluntarily using these ICT, reflecting on users being more likely to have a change of behavior (e.g., stop using the smartphone or SNS), if defied with too many negative consequences of technostress (Brown et al., 2002; Maier et al., 2015).

Technostress creators

The literature has heavily relied on five factors that are considered to generate technostress, which are referred to as technostress creators, or sometimes called stressors, and can be seen as demands for individuals (La Torre et al., 2019; Ragu-Nathan et al., 2008). These are defined by Tarafdar et al. (2007): (a) techno-overload; (b) techno-invasion; (c) techno-complexity; (d) techno-insecurity; (e) techno-uncertainty. Each of these factors are considered as stress-creating conditions, which are linked to psychological and behavioral outcomes (Califf et al., 2020; Nastjuk et al., 2023; Tarafdar et al., 2007). Despite the consensus in these factors, different reported results in various studies show empirical and conceptual inconsistencies, depending on if they are measured in the organizational or private context, or depending on if it's measured as an aggregated construct or not (Nastjuk et al., 2023).

The original approach to measure these factors was introduced by Tarafdar et al. (2007) and Ragu-Nathan et al. (2008). Both these studies explored individual items for each technostress creator, and then presented technostress as an aggregated construct that affects the respective outcomes. Meanwhile, other studies tried a different approach, using each factor disaggregated from each other (e.g., Califf et al., 2020; Chandra et al., 2019). Each approach has its advantages, as the aggregated approach reduces empirical complexity, while the disaggregated approach accounts for this type of complexity, analyzing each individual factor (Nastjuk et al., 2023). The majority of the literature focused on the aggregated approach (e.g., Ragu-Nathan et al., 2008), while newer studies started to focus on this disaggregated approach, since it shows that each factor affects outcomes differently (e.g., Maier et al., 2014). Due to this, Nastjuk et al. (2023), suggest future studies to use the disaggregated approach when it's unsure that all factors

will have the same effect direction, or when the objective of the study is knowing the effect size of certain factors, and not only their general direction.

Technostress creators: organizational context

Since there is this division between organizational and private context, it's only natural that the technostress creators share this division.

First, *techno-overload* describes the level in which individuals feel forced to work more and faster due to ICT being able to provide an excessive variety and amount of information, disabling the capability of the user to handle efficiently all of it (Ragu-Nathan et al., 2008). This factor also includes technology-based interruptions, like receiving an email, pressuring the user to address this new topic as soon as possible, which will cost more resources to the user to go back on track with the topic before the interruption (Tarafdar et al., 2011). These authors also argue that attributes related to techno-overload include time pressure triggered by ICT, changes in work habits to adapt to technology, and unhealthy amounts of work due to ICT aspects.

Second, *techno-invasion* is described as the feeling that the users' personal time is expected to be occupied by work life, making the line between these two contexts blurry or even disappear (Ragu-Nathan et al., 2008). This constant availability occurs due to permanent connectivity between devices, or even because of the shared use of the same account, originated by a cloud service (Ragu-Nathan et al., 2008). This kind of invasion can cause stress or even work-family conflicts, because of the attributes associated to this factor, such as the need to sacrifice personal time, lack of time for family commitments, and the concern about the monitorization of the use of personal time (Tarafdar et al., 2011).

Third, *techno-complexity* refers to the users feeling the need to put considerable effort into learning and understanding the ICT they work with, in order to thrive in the name of their organization, who tries to remain competitive by investing in innovative technologies (Ragu-Nathan et al., 2008; Tarafdar et al., 2011). This constant effort to upskilling not only can affect job performance, but also increase the users' stress levels (Tarafdar et al., 2011). These authors say that this factor common attributes contain the users' feeling that they lack knowledge about ICT and the time to acquire it.

Fourth, *techno-insecurity* occurs when ICT users get a constant concern about losing their jobs to other candidates, who are more skilled at managing innovative technologies, or even getting replaced by technology itself (Ragu-Nathan et al., 2008). This concern originates from the organizations wanting a higher productivity and having higher expectations about the ICT skills their workers own, and this is shown through this factor attributes, which includes this

same concern of being replaced, the feeling of being threatened by co-workers with better knowledge about ICT, and working in an environment where knowledge about technology is hidden, which is not uncommon to exist between co-workers (Shen & Kuang, 2022; Tarafdar et al., 2011).

Finally, *techno-uncertainty* arises when users are unable to have or even build reliable and solid experience because of the constant changes and updates in ICT (Ragu-Nathan et al., 2008). Attributes associated with this factor include feeling a loss of control because of these constant changes in networks, software, and hardware (Tarafdar et al., 2011).

Technostress creators: private context

In comparison with the organizational context, the private context of technostress creators is still very unexplored and without established measures (Nastjuk et al, 2023). Because of this lack of consensus on the exact measure for technostress in the private context, various authors use four of the same five factors used in organizational context (i.e., techno-invasion, techno-overload, techno-complexity, and techno-uncertainty), adapting them to draw parallels between contexts (Nastjuk et al., 2023), while removing the techno-insecurity factor, due to its inherent connection with the organizational context and the fear of losing a job (Maier et al., 2015).

Naturally, the remaining four factors were adapted to various aspects of the personal life, such as the techno-invasion, referring to the perception of SNS having too much of a central role in the daily life of a person, impacting the quantity and quality of interactions users have with their families and friends outside SNS (Maier et al., 2015). Next, techno-overload happens when there are too many interactions on SNS, or abundant information when replacing a personal smartphone (Maier et al., 2014, 2015). Additionally, techno-complexity, in the private context, similarly to the organizational one, refers to the negative perception that technology is difficult to handle, but aimed at SNS and technology used for leisure actions (Maier et al., 2015). Lastly, techno-uncertainty also refers to the constant changes and updates that devices and software's go through, but when dedicated to private life context (Maier et al., 2015).

Antecedents

Technostress antecedents function as additional demands that can influence creators' effects on people by affecting their resources, provoking more technostress episodes, or amplifying its level in individuals at any context they're in (La Torre et al., 2019; Salanova et al., 2014).

Regarding organizational context technostress, various authors divide the antecedents by their origin, which could be from individual factors, technology itself, and job-related

characteristics (Camacho & Barrios, 2022; La Torre et al., 2019). First, individual factors can embrace factors such as demographics, for example age, which already gave two different conclusions about its relationship with technostress, with Shu et al. (2011) stating older people have higher levels of technostress, while Ragu-Nathan et al. (2008) previously concluded that this relationship was the inverse. Other demographics can be gender and education level, meaning that males and less instructed individuals are more likely to suffer from higher levels of technostress (Ragu-Nathan et al., 2008). Continuing with individual factors, these can increase technostress levels when individuals have lower computer self-efficacy (i.e., belief about one's capability to use a computer), higher technology dependence at work, lower digital literacy, or even if they have higher power distance at work (Essel et al., 2021; Shu et al., 2011). Proceeding to another antecedent, the technology itself can increase technostress levels, through its intrusive characteristics and complexity (Ayyagari et al., 2011). Lastly, the job-related characteristics are naturally connected to the organizational context, and aspects such as task complexity, centralization of power, and the organization's tendency towards innovation are all positively related to technostress levels (Koo & Wati, 2011; Wang et al., 2008).

On the other side, the private context technostress hasn't been studied as intensively as the organizational one in this regard, which translates to less explored and polished antecedents (La Torre et al., 2019). Some examples of the most important antecedents to excessive use of SNS, and the consequent increase of technostress levels, are personality traits (e.g., extraversion, neuroticism), certain psychological factors (e.g., social interaction anxiety, materialism, need for contact), technology features, and the individuals' predisposition to be addicted to technology, even outside work activities (Essel et al., 2021; Hsiao et al., 2017; Lee et al., 2014; Qi, 2019). While in the private context, gender no longer plays a relevant influence, and individuals aged above 25 are found to have lower levels of technostress, when compared with younger individuals (Hsiao et al., 2017; Şahin & Çoklar, 2009).

It is important to note that La Torre et al. (2019) stated that some authors tested antecedents using an aggregated approach of the technostress construct, making it difficult to know which antecedent impacts which technostress creator (e.g., Shu et al. 2011 concluded that computer self-efficacy mitigates the effect of the techno-complexity and techno-insecurity, while having no effect on techno-uncertainty, techno-overload and techno-invasion).

Outcomes

With the antecedents and the creators covered, only remain the consequences of the these in order to better understand the development of technostress' impact in the life of technology

users. Technostress creators often link to different negative outcomes, such as exhaustion, loss of productivity and commitment (Califf et al., 2020; Tarafdar et al., 2019), but how is it possible to understand the exact situations where this occurs, or which individuals are more likely to suffer from these outcomes of technostress? Nastjuk et al. (2023) tried to explore various aspects of technostress outcomes, dividing them by aspects like: (a) the type of outcome; (b) the way authors measure and analyze technostress; and (c) the context they happen.

Firstly, technostress outcomes can be divided into psychological outcomes (i.e., that reflect the state of mind at a conscious level) (Weinert et al., 2020) and behavioral outcomes (i.e., actions that individuals engage in, intentionally or not) (Morales et al., 2017). While some examples of psychological outcomes can be burnout, exhaustion, and reduced job satisfaction (Ragu-Nathan et al., 2008; Ayyagari et al., 2011; Srivastava et al., 2015; Califf et al., 2020), some examples of behavioral outcomes are decreased performance, productivity, and turnover (Ragu-Nathan et al., 2008; Tarafdar et al., 2011; Maier et al., 2014; Califf et al., 2020). In terms of effects, psychological outcomes seem to have a stronger connection to technostress creators than behavioral outcomes, which strengthens the need to better explore the risks technostress cause to a healthy PWB, like a potential mediating role of a psychological outcome between technostress and a behavioral outcome (Nastjuk et al., 2023; Tarafdar et al., 2015).

Although some authors apply similar models and hypothesis in their studies, occasionally they find different results of how technostress affects psychological and behavioral outcomes, such as some technostress creators affecting behavioral outcomes more than psychological outcomes (Nastjuk et al., 2023). A possible explanation for these contrary results is also proposed by Nastjuk et al. (2023), who refer that the use of technostress as an aggregated construct can lead to mitigated effects of some technostress creators (e.g., having employee motivation negatively affected by techno-overload, but not by techno-invasion). As follows, a direction of effect by some technostress creator might not be the same as the other ones in the aggregated construct, losing its relevance as an individual creator. This is relevant because the approach to the measurement of technostress has been mainly through an aggregated level of the construct (e.g., Tarafdar et al., 2007, 2019; Ragu-Nathan et al., 2008), leaving the specificities of each technostress creator to uncover in many studies (Nastjuk et al., 2023).

Both psychological and behavioral outcomes have been heavily explored in the organizational context (e.g., Fischer & Riedl, 2017; Tarafdar et al., 2019), with only some authors also focusing on outcomes in the private context (e.g., Maier et al., 2015; Nastjuk et al., 2023). Some of these authors indicate differences between both contexts, like the aggregated technostress creators having bigger impact on behavioral and psychological outcomes in the

private context, when compared to the organizational one (Nastjuk et al., 2023). A possible reason for this to happen has already been given by Maier et al. (2014; 2015), who defend that users stop using certain technology if it's perceived as demanding. The authors state that this normally happens due to the user's free choice to use whichever technology they want, which doesn't happen in the organizational context, where that decision is implicit by norms, defined by organizational usage objectives. This choice can be seen as negative due to the switch from one technology to another, which could lead into another situation of technostress (Maier et al., 2015). Another study gave a different possibility, saying that organizations that invested in user support services reduced technostress effects in their own workers, being something important to prevent of attenuate technostress inside an organization (Weinert et al., 2020).

Summing up all the aspects to be aware of while exploring technostress outcomes, the current general position in literature was established by Nastjuk et al. (2023) with their recent meta-analysis, reporting similar effect direction of individual outcomes in the organizational context, each having a greater impact on psychological outcomes than on behavioral ones. Such thing doesn't transpire in the results regarding the private context, where only techno-overload affects more psychological outcomes than behavioral ones, possibly due to its role in social interactions when using SNSs, where overwhelming amounts of information, features, and too many social interactions with other users are common (Cao & Sun, 2018; Maier et al., 2014). Meanwhile, still in the private context, techno-uncertainty has a greater effect on behavioral outcomes than on psychological outcomes, while techno-invasion and techno-complexity don't show statistically differences in their impact on both types of outcomes (Nastjuk et al., 2023). A plausible explanation for these differences comes from the focus on SNSs by studies that address the private context, and techno-overload is the only creator related to social interactions (Maier et al., 2015; Nastjuk et al., 2023).

Among the various conclusions made by Nastjuk et al. (2023), the authors also made a suggestion for the next step in future literature, saying that considering the obtained results, it would be interesting to explore mediation models in both the organizational and private context, with psychological outcomes mediating the relationship between the individual technostress creators and behavioral outcomes. With various studies stating the negative effect of technostress has on PWB (Asad et al., 2023; Atanasoff & Venable, 2017; Nimrod, 2017) and both COR and JD-R linking gain of demands and consequent loss of resources into risks to PWB (Mayerl et al., 2016), it might be interesting to explore exactly this variable as our mediating role in this study.

1.2. Psychological Well-Being

Although well-being is commonly used, the coverage it has on many fields makes it somewhat easy to get confused with the various terminologies and overlapping meanings, since it depends on the field it's studied (Rohde et al., 2019). The World Health Organization (WHO, 2021) defines well-being as "a positive state experienced by individuals and societies", seeming a pretty vague meaning when applied to the psychology related fields, which has many concepts with similar and overlapping definitions.

Hereupon, it is understood that there's a necessity to look for different perspectives of well-being, before diving headfirst into an inadequate meaning.

Well-being perspectives

Cowen (1991) proposed that well-being shouldn't be just the absence of psychological disorders, but rather a series of positive factors fostered by aspects such as social interactions, knowledge acquisition, or an individual's exposure to a healthy environment. This was one of the studies indicating the need to clarify the meaning of well-being, which was (and still is) a work in development, reflected in the fact that the literature about well-being has been divided into two main groups (i.e., hedonic and eudaimonic perspectives) following the thought of ancient Greek philosophers (Ryan & Deci, 2001; Ryff & Singer, 2008). Founded around different views of human nature and what makes a good life and society, theses perspectives not only approach differences about well-being, but also some similarities (Ryan & Deci, 2001).

Firstly, there's the hedonic perspective, frequently related to the gain of happiness and pleasure, while avoiding pain and displeasure (Kahneman et al., 1999; Ryan & Deci, 2001). This balance of positive and negative factors results in a certain level of life satisfaction, having good levels of satisfaction when there's more positive than negative factors, and the greater this difference between positive and negative, bigger the level of life satisfaction (Diener et al., 1999). Generally associated to the hedonic perspective, subjective well-being is exactly that, subjective. Defined by each individual, well-being is different for everyone, depending on what they consider essential to a good life (Diener, 1984). Through opinions and feelings towards the events in their own life, being these positive or negative (e.g., joy, sadness), individuals compare their life to the standards about what is a satisfying life, contributing to a reflection about their own life satisfaction (Diener et al., 2018). In sum, in order to analyze well-being based on the hedonic perspective, it's essential to focus on three aspects: (a) positive factors; (b) negative factors; (c) life satisfaction, resulting in self-report measures and a critical evaluation about the balance between positive and negative feelings about personal events to

determine the level of life satisfaction of an individual (Diener et al., 2018; Ryan & Deci, 2001). An example that can be used in the context of technology is the use of a personal smartphone for only pleasure purposes (Nastjuk et al., 2023).

Despite this perspective firstly gaining attention from some authors, the eudaimonic perspective obtained momentum as an option with a less reducer view of well-being (Ryan & Deci, 2001; Ryff & Singer, 2008).

The eudaimonic perspective focus on PWB (Waterman, 1993), saying that it is more than just happiness, being also the developing and achieving of human potential, while associating meaning and purpose to different aspects of life (Ryan & Deci, 2001; Ryff & Singer, 2008), like learning new skills to improve technology knowledge, in order to feel more self-value in an organization, for example. Thus, the eudaimonic perspective shows a more complex view to what is human nature towards well-being, reflected in Ryff (1989) interdimensional model, shaped around six dimensions (Ryff & Keyes, 1995).

Ryff's six factor model of psychological well-being

In the end of the 80's, Ryff contributed to the lack of theorical application in the well-being literature with her study, fundamental to the development of meaning and instruments related to this concept (Ryff, 1989). Thanks to the focus given to positive and negative factors in previous studies, alongside life satisfaction, it was considered important to approach their origins. Bradburn (1969) explored the way social changes (e.g., education changes, employability patterns, politic tendencies) influence individuals and their PWB, referencing Aristotle's work about how the greatest achievement a person can obtain through their actions is happiness. It was based on this that happiness started to be treated as the balance between positive and negative factors, due to the understanding that these don't predict each other's results (Ryff, 1989). In order to understand what was missing in PWB definition, Ryff (1989) considered previous studies that were rarely mentioned in PWB literature, allowing to use various convergence points and integrate different theorical aspects (e.g., mental and physical health, long time development), in order to create the current six dimensions of the PWB model. Later, Ryff and Keyes (1995) reinforced this model by applying it to a more representative sample and compare the results in terms of age and gender. Older people reported lower levels of Purpose in Life and Personal Growth than younger ones, contrary to Environmental Mastery, Positive Relations with Others and Autonomy, where older people reported higher levels than younger people. Self-acceptance showed no significant differences between younger and older people (Ryff & Keyes, 1995). Regarding gender, only Positive Relations with Others show any

differences, with women reporting higher levels than men (Ryff & Keyes, 1995). In sum, the study showed that PWB can be measured by these six dimensions.

Self-acceptance. This is the positive self-evaluation an individual has of themself and their past life experiences (Ryff & Keyes, 1995). Being a central trait of mental health and a characteristic of self-actualization, positive psychological functioning, and maturity, this dimension works in long-term and involves both awareness and acceptance of positive and negative personal traits (Ryff, 1989; Ryff & Singer, 2008). When measuring this dimension, high scores mean that an individual has a positive attitude towards themselves, and not only has knowledge of their qualities and weaknesses, but also accepts them, leaving a positive feeling about their past life. Low scores mean the dissatisfaction they feel with self, desiring to be different from what they are, while feeling troubled about their past life (Ryff, 1989).

Positive relations with others. This dimension refers to the capacity of an individual to have high quality social relationships and interactions with others (Ryff & Keyes, 1995). Being an important aspect in the life of everyone regardless their culture, interpersonal relationships show an important role in the PWB (Ryff, 1989; Ryff & Singer, 2008). When measuring this dimension, high scores translate to having satisfying and trusting high quality relationships with others, while showing empathy, intimacy and affection. Low scores mean few relationships where trust and openness exist, leaving the individual isolated and not willing to have a take and give type of ties with others (Ryff, 1989).

Autonomy. This dimension refers to the sense of self-determination of an individual (Ryff & Keyes, 1995). Having qualities such as independence and regulation of self-behavior, while being capable of evaluating the self and leaving behind the necessity of approval from others, is related to having a sense of freedom from everyday life controlling norms, due to individualization from collective fears and beliefs (Ryff, 1989; Ryff & Singer, 2008). Having high scores while measuring this dimension reflects that an individual is independent and able to resist social pressures about the way of thinking and act, while regulating their own behavior. Low scores show concern about other's expectations and judgement, relying on these to make important decisions (Ryff, 1989).

Environmental mastery. This dimension relates to the capacity of an individual to effectively manage their life and the surrounding world (Ryff & Keyes, 1995). An important aspect of PWB is the ability to know what type of environment and surroundings better suits an individual, both mentally and physically, in order to thrive for long periods of time, while actively and effectively taking advantage of environmental opportunities and events (Ryff, 1989; Ryff & Singer, 2008). High scores in this dimension means having a greater sense of being

competent in managing the environment the individual ended up being (or chose to be) inserted in, while dealing with complex activities and opportunities. Low scores reflect difficulty in managing all the activities related to the current environment of the individual, adding the incapability to change or improve this surrounding, showing lack of control over these (Ryff, 1989).

Purpose in life. An individual can have a feeling that their life has purpose and meaning, and that's what this dimension relates to (Ryff & Keyes, 1995). An individual who functions positively has a sense of directedness and intentionality towards a clear purpose in life, having intention and goals, contributing to PWB (Ryff, 1989; Ryff & Singer, 2008). High scores when measuring this dimension translates into having clear goals and sense of directedness, giving meaning to life through individual objectives and aims. Low scores show a lack of these objectives or direction that give life meaning and purpose (Ryff, 1989).

Personal growth. Referring to the sense of continued development and growth of an individual (Ryff & Keyes, 1995), this dimension is essential to achieve the human potential through renovation and update of experiences and skills (Ryff, 1989; Ryff & Singer, 2008). High scores in this dimension mean that an individual has a better feeling of continued development regarding their self and capacity to improve their behavior over time. Low scores mean a sense of stagnation of the self, that their knowledge and effectiveness doesn't improve, giving a feeling of boredom and disinterest in life (Ryff, 1989).

Antecedents and threats

Over the years, some authors tried to define exactly what are some of the antecedents and threats to PWB, in order to better understand what mentalities or behaviors people need to have or avoid, to report higher PWB levels.

Regarding the antecedents, literature shows that factors such as mindfulness, resilience and optimism can be common antecedents to the general model of PWB (i.e., affect different dimensions of PWB), while problem-solving self-efficacy, positive approach coping strategy and wishful thinking can affect only one or some dimensions of PWB (Karademas, 2007; Thanoi et al., 2023).

In terms of threats, Karademas (2007) states that stress negatively affects PWB in general, matching what other authors said about the negative influence that technostress has on PWB, stating that even if individuals have weak levels of technostress, it may still be a threat to PWB (Araoz et al., 2023; Asad et al., 2023). Other authors also state that other risks to PWB can be

spirituality, social and emotional loneliness, and work-family conflict (Hong et al., 2023; Obrenovic et al., 2020; Tuason et al., 2021).

Looking at the dimensions of PWB to better understand how technostress may affect each one of them, while taking in consideration what was previously stated about these two variables, it is possible to connect the following dimensions: (a) *self-acceptance*, being centered on how individuals evaluate themselves based on their personal qualities and weaknesses, makes sense that the decrease of its level originates from a feeling of lack of knowledge in ICTs, associating it to personal weaknesses; (b) *positive relations with others*, considering it's connected to social relationships, along with techno-insecurity, with higher levels of this technostress creator related to more tense social interactions with others, due to a personal feeling about lack of support from others; (c) *autonomy*, which also makes sense to connect to technostress, considering that people with less tools to deal with technostress need other's support and approval more often, decreasing personal levels of autonomy; (d) environmental mastery, which is related to one's capacity to effectively manage the world around them, it's the contrary idea of someone who possesses higher levels of technostress due to an ineffective ability to operate ICTs; (e) the *purpose in life* dimension can be a little trickier, however, let's consider its concept of how a person who has a sense of directedness towards clear goals. If this same person has high levels of technostress in this modern and technological world, where it's increasingly important to understand new advancements about ICTs, it may impact how much this person thinks about their future and goals; and (f) *personal growth*, being pretty straightforward, when taking in account that understanding ICTs and learning more about that world of knowledge can help with that dimension, and that's where technostress comes as a threat, due to it being an obstacle to this development and growth of an individual's knowledge.

Outcomes

Lastly, PWB has relevant outcomes, such as high levels of PWB leading to better physical well-being and life expectancy (Howell, 2009; Huppert, 2009). However, there's more to what positive PWB can do for an individual, due to the positive relationship between PWB and Quality of Social Interaction (QSI), showing that people feel happier and report a better feeling of themselves when they have more satisfying and active social lives (Nezlek et al., 2002; Sun et al., 2020). Despite this, Sun et al. (2020) also reports the contrary direction on this interaction, with happier individuals spending more time interacting with other people (i.e., well-being influencing social interactions).

Nonetheless, these findings only apply for similar concepts and respective measures, such as the use of a different measure for PWB than the Ryff's interdimensional model, the use of a different type of well-being, or even applying these into specific ages, and not a more generalized sample (Nezlek et al., 2002; Sun et al., 2020). In sum, it is important to understand better what exactly the influence of PWB on QSI is, using the Ryff's model and a more generalized sample, in terms of age and work sector.

1.3. Quality of Social Interaction

Being one of the six dimensions of the interdimensional model of PWB, a positive and continuous set of interactions with other people is a part of every individual's life (Ryff, 1989). But not every social interaction is the same, due to some being more fulfilling than others, leading to the conclusion that these interactions should not only be frequent, but also pleasant (Baumeister & Leary, 1995). While many studies concluded that quantity of social interactions is associated with well-being, there's still much to explore about the quality of these interactions, such as what happens during the interactions, with whom them happen, and what really needs to happen in order to get high QSI (Sun et al., 2020).

Social interactions are defined by Vilela and Ranhel (2017) as a pattern of sequential turns between two individuals, with each turn having a speaker and a listener, alternating turn to turn. In each of these turns, the interaction can vary in many ways, such as personal disclosure, deeper conversations, the current humor of the interaction or the individuals, and even whom an individual is interacting with. These variations are key to define and define the quality of social interactions (Elmer et al., 2023; Sun et al., 2020; Vilela & Ranhel, 2017), despite not existing many studies that really determine what QSI is, maybe due to being seemingly easy to understand its concept, despite having several aspects to it, and how to get access to more and better QSI has some particularities to it, based on previous literature.

In the organizational context, it's crucial for organizations to promote these social interactions between their employees, following Pirdaus et al. (2024) findings about on how the process of interaction between coworkers, while discussing problems and finding solutions, can improve the quality of job performance. On top of that, coworkers are also more likely to develop higher levels of positive work attitudes and job performance when given the opportunity to openly and voluntarily have informal communication (e.g., talking about friends and family), while getting well with each other and developing social relationships (Derlega et al., 1993; Fay & Kline, 2011; Winstead et al., 1995). On the other side, workplace isolation and

problematic relationships are associated with higher levels of job stress, burnout, less job satisfaction and commitment (Marshall et al., 2007).

This type of interactions that play around the *take and get* about personal disclosures are more likely to facilitate quality social interactions, not only in an organizational context, but also on a private one (Fay & Kline, 2011).

In the private context, an important but still unconclusive aspect about the QSI is with whom these are shared (Sun et al., 2020). Social interactions with people that are closer to an individual tend to be more authentic and accepting (Venaglia & Lemay, 2017), which is a relevant topic to approach, considering that various employees report not having many relationships that are more than superficial with their coworkers (Dahlin et al., 2008). Nonetheless, interacting with strangers can be a more positive experience than to remain without social interaction at all (Epley & Schroeder, 2014). Overall, not many studies explored if social interactions are more rewarding with closer or with distant others, and those who have reported mixed results (Sun et al., 2020). An apparent conclusion on this topic is that participants tended to report being happier and more sociable with closer people, despite an apparent limitation on how this was measured, resolving around only self-report, although it was a limitation the authors knew existed in this field of research (Sun et al., 2020), leaving this question to be fully answered.

Relationship between QSI and technostress

Although there are studies who focus on the influence of technology on QSI via online, in the workplace or face-to-face relationships (e.g., Demerouti et al., 2014; McDaniel & Coyne, 2016; Pirdaus et al., 2024; Rotondi et al., 2017), there are also studies that focus on how higher levels of social and organizational support attenuate technostress in coworkers (Becker et al., 2021; Li & Wang, 2022; Salanova et al., 2012; Tarafdar et al., 2010).

Regarding the effect that technology has on QSI, Rotondi et al. (2017) states that, for people who use a smartphone for longer periods of time, spending time with their friends is less valuable to their satisfaction with friends, reinforcing that an intrusiveness smartphone usage negatively influences quality of face-to-face interaction, especially if an individual gets to fixated on the smartphone (Rotondi et al., 2017). Despite the negative effects smartphones can bring to social interactions, if this usage is effectively controlled, it still has various positive sides to it, such as reducing the cost of information gathering, enable working from home or any other place, or even getting any type of person to connect online (Pirdaus et al., 2024; Rotondi et al., 2017).

Specifically, about the relationship between technostress and QSI, it doesn't seem to have been yet studied how technostress impacts the QSI outside a COVID-19 or social media reality, from what could be found in previous literature.

In sum, the influence general use of technology has on social interaction seems to be negative to face-to-face interactions, despite its potential benefits to the quantity of social interaction, mainly online interactions (Pirdaus et al., 2024; Rotondi et al., 2017). But based on this, it isn't correct to assume that technostress will have the same influence on any of these types of social interaction, especially on the QSI.

Relationship between QSI and PWB

Regarding the relationship between these two concepts, Elmer et al. (2023) state that there's generally more literature about the effect social interactions has on well-being, existing a scarcer number of studies approaching the reverse effect (e.g., Gloster et al., 2021, Nezlek et al., 1994; 2000). Nonetheless, it is important to understand the effect these social interactions have on the well-being of an individual, due to the potential existence of a bidirectional relationship.

The study of Sun et al. (2020) concluded that not only the quantity of social interaction is positively associated with well-being, but also that higher levels of quality during social interactions (e.g., more personal disclosure, deeper conversations) are positively associated with well-being. This conclusion goes along with other studies stating that people feel happier when interacting with others, as the same time as happier people spend more time in social interactions, which are often taken as an important factor for well-being (Argyle, 2001, Myers, 2000, Sun et al., 2020).

Beyond looking at the positive well-being of an individual, Elmer et al. (2023) studied how QSI interacts with depression symptoms. In this same study, it is stated that QSI may have an important role in the decrease of depressive symptoms, due to the perception of positive social interactions contributing to a greater feeling of social inclusion and less isolation, reducing the risk of the development of these symptoms. With other authors approaching the way depression symptoms affected QSI, these studies reveal that individuals with depression symptoms have less intimate and less pleasant social interaction, despite finding these social interactions as meaningful as individuals who don't show these symptoms (Gloster et al., 2021, Nezlek et al., 1994; 2000). This may happen due to the capability of an individual to regulate their own emotions being related to higher QSI (Lopes et al., 2005). Also, because of the importance this ability has on communication and social tasks, such as aggregating information about others'

feelings and thoughts, and coordinate social interactions (Keltner & Haidt, 2001), depression symptoms may affect this ability on individuals.

Lopes et al. (2005) support that, despite emotion regulation training might help with social interactions, many specific abilities might impact social interactions, due to it being influenced by various factors (e.g., social skills, personality traits, motivation, depression levels).

1.4. Extraversion

Personality traits have been revealed by literature as a predictor of differences in behavior (e.g., Back et al., 2009; Lopes et al., 2005; Vazire, 2010). Following this rationale, extraversion, being one the Big Five personality traits (McCrae & Costa, 1987), is described as one of the various factors that influence individuals' behavior on a more social context, due to sociability (i.e., tendency to be more talkative, assertive and outgoing) being a large portion of the conceptualization of extraversion (DeYoung et al., 2007; Fleeson & Gallagher, 2009; Sherman et al., 2015, Sun et al., 2020).

Investigating the applicability of extraversion in future studies with different aspects to them, authors tested and replicated the same results between different cultures and contexts, such as an organizational one (Ching et al., 2014; Judge et al., 2014), and in some other studies, extraversion, either reported by self or by others, could even predict observed high levels of sociability (Borkenau et al., 2004; Eaton & Funder, 2003; McCabe & Fleeson, 2016).

Although the relationship between extraversion and sociability is well established, do extroverted individuals report higher levels of QSI? In her book, Cain (2012) states that introverts still worry about their QSI and having more than superficial interactions, but with smaller circle of people, such as close friends or family. However, literature suggests that extroverts, beyond this concern, also show a stronger connection between deeper social connections and their well-being (DeYoung, 2015; Smillie, 2013), showing a more complex relationship between extraversion, social interactions and individuals' well-being.

Despite this apparent connection and studies trying to find a moderation role between different aspects of well-being and also different aspects of social interaction, the results are still inconclusive (Sun et al., 2020). With that in mind, and believing extraversion is a reliable way to identify some of the differences between participants and have a more precise result about this complex topic, Sun et al. (2020) tested the moderation role of the personality trait extraversion, also resulting on an inconclusive answer, due to wide credibility intervals that contained small to moderate effect sizes to either direction, which translates into a lack of evidence if the quality of social interactions is associated differently between individuals with

high or low extraversion. With the recommendation of Sun et al. (2020) on exploring the extent to which extraversion has a moderator role in the relationship between QSI and well-being, it's definitely a convenient variable to include into the model of the present study.

1.5. Question, Objectives, and Hypotheses

In the current digital age, ICT has taken over most part of both private and organizational context, with a portable nearly infinite source of information in one pocket, or the constant need to use or be assisted by ICTs in the workplace (Araoz et al., 2023; Fay & Kline, 2011; Nastjuk et al., 2023; Rotondi et al., 2017). But these advantages don't come alone, being accompanied by several negative consequences about them when an individual is incapable to use it properly, being one of them technostress (Brod, 1984, Pirdaus et al., 2024). Considering the various studies referring the negative impact technostress has on PWB (e.g., Araoz et al., 2023; Asad et al., 2023; Nimrod, 2017) and the need to better explore the influence of technostress on negative behavioral outcomes (e.g., QSI) through psychological ones (e.g., PWB), because of the way these variables behave between them (Nastjuk et al., 2023), a mediation model it's the most likely to explain this interaction. At the end of this model, QSI plays a part as one of the possible behavioral outcomes of technostress, not because of the frequent studies about technostress and QSI, but because of the known positive correlation between PWB and QSI. Lastly, with extraversion still having an inconclusive moderator role on the PWB and QSI relationship, despite some authors stating that extroverts make social interactions of higher quality easier than introverts (e.g., Sun et al., 2020), it's convenient to also explore that in this model.

In this regard, the present study will try to answer the two main questions: (1) "Does technostress influence the quality of social interaction through its impact on the psychological well-being of people and does this differs between the organizational and private context?"; (2) "Do extroverted and introverted individuals show differences in their perception on how the decrease of their PWB impacts the quality of their social interactions?".

In the organizational context, Day et al. (2012) already tried to use JD-R theory to examine technology as both a demand and a resource, but in the private context, it seems like no one has ever tried to use the COR model to explain technostress. A suggestion made by Nastjuk et al. (2023) was the use of a mediation model to better explain the impact of technostress on a behavioral outcome through a psychological outcome, which conducted the foundation to the model on this study. Regarding the relationship between PWB and QSI, the behavioral outcome was chosen in order to deepen the existent knowledge about this relationship, due to the lack of usage on the psychological aspect of well-being when studying its impact on QSI. Finally, Sun

et al. (2020) suggested the use of extraversion as a moderator to this last relationship, in order to better understand its influence in this role.

In order to approach all this, and because there is more than one relationship in this model that needs better understanding due to the lack of enough or any similar studies (i.e., in using JD-R theory and COR model together to explain technostress in both organizational and private context; enough studies approaching the relationship between PWB and QSI, instead of QSI and PWB; confirmation of the influence of extraversion between PWB and QSI), the present study has the following objectives: (a) try to integrate both JD-R theory and COR model in technostress contexts; (b) support the existence of an indirect effect between technostress and QSI through PWB; (c) understand how extraversion moderates the relationship between PWB and QSI; (d) compare the results of the mediation and the moderated mediation models between the organizational and private context.

Lastly, considering all that was said above, the theoretical model suggests the moderator role of extraversion on the relationship between PWB and QSI, being this relationship part of a mediation model, where PWB has the mediator role on the relationship between technostress and QSI, resulting in the moderated mediation (Figure 1.1), model 14 (Hayes, 2022). Due to the comparison between the organizational and private context of technostress, the hypotheses for these models and study are:

H1: Psychological well-being negatively mediates the relationship between technostress (i.e., techno-complexity, techno-invasion, techno-insecurity, techno-overload, techno-uncertainty) and quality of social interaction.

H1a: In the organizational context, psychological well-being negatively mediates the relationship between technostress (i.e., techno-complexity, techno-invasion, techno-insecurity, techno-overload, techno-uncertainty) and quality of social interaction.

H1b: In the private context, psychological well-being negatively mediates the relationship between technostress (i.e., techno-complexity, techno-invasion, techno-overload, techno-uncertainty) and quality of social interaction.

H2: Extraversion negatively moderates the indirect effect between technostress and quality of social interaction, through psychological well-being, increasing the positive effect of PWB in QSI.

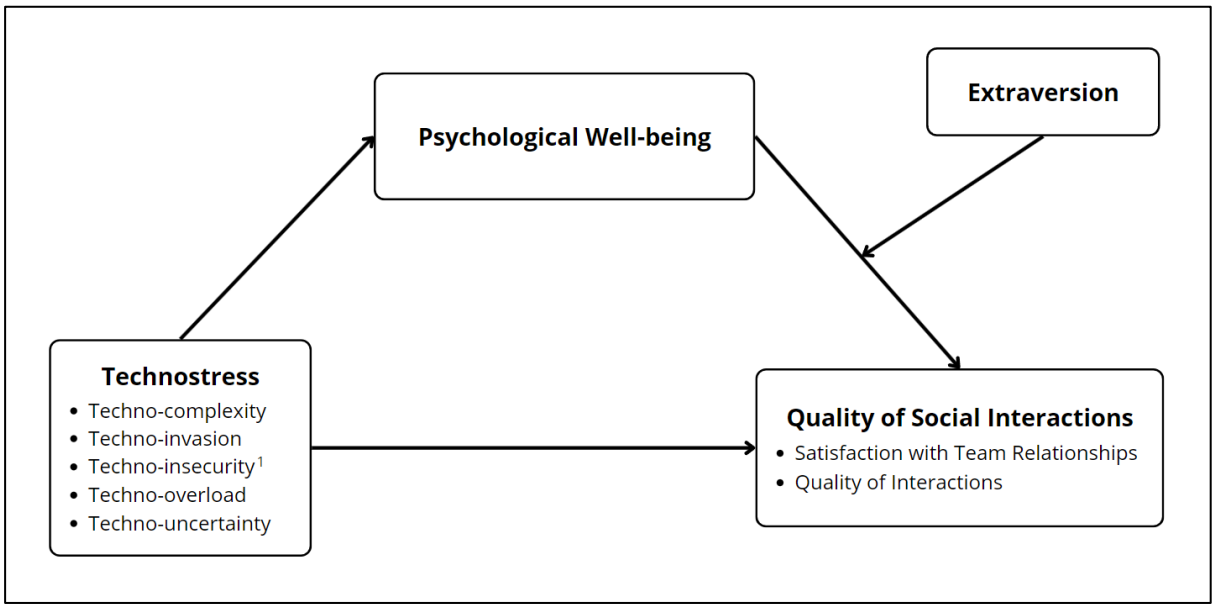
H2a: In the organizational context, extraversion negatively moderates the indirect effect between technostress (i.e., techno-complexity, techno-invasion, techno-insecurity,

techno-overload, techno-uncertainty) and quality of social interaction, through psychological well-being, increasing the positive effect of PWB in QSI.

H2b: In the private context, extraversion negatively moderates the indirect effect between technostress (i.e., techno-complexity, techno-invasion, techno-overload, techno-uncertainty) and quality of social interaction, through psychological well-being, increasing the positive effect of PWB in QSI.

H3: When comparing both technostress contexts, people report higher levels of private technostress (i.e., techno-complexity, techno-invasion, techno-overload, techno-uncertainty) than organizational technostress (i.e., techno-complexity, techno-invasion, techno-insecurity, techno-overload, techno-uncertainty).

Figure 1.1



Theorical Model

Looking at the theorical model, it's possible to see that techno-insecurity presents a detail about it. This serves to specify that techno-insecurity is only included in the organizational context model, considering the inherent nature this technostress creator has with this context. Hereupon, the model in the private context only presents four technostress creators instead of the usual five.

2. Method

2.1. Procedure

Due to this study using a mediation model, it's considered a correlational study, and the data collection was made via online questionnaire, with the need of only one response by participant.

This questionnaire (Appendix A) was created in Qualtrics Survey software and distributed in social media (e.g., LinkedIn, Instagram, Facebook) and to direct or indirect contacts to obtain as many participants as possible, making this a convenience sample. The questionnaire was distributed between November 2023 and April 2024.

The beginning of the questionnaire included an informed consent (Appendix A), with all the relevant information a participant may have needed, such as the requirements to respond, the objectives of the study, and contact information in case of further clarifications. It was also stated that the participants had the possibility to withdraw without consequences, and the estimated duration to finish answering the questionnaire (i.e., 10 minutes). The anonymity and confidentiality of the participants was guaranteed through the use of aggregated data, only for academic research purposes.

2.2. Sample

For this study, two requirements were needed for a participant to be able to respond to this questionnaire: (a) being 18 years old or more; and (b) working for, at least, six months. Besides this inclusion criteria, to consider any response valid, the participants needed to respond to every question in the questionnaire, with some exceptions of participants who didn't answer the sociodemographic questions and one or two items in the questionnaire.

The initial sample consisted of 478 participants, yet, after a preliminary analysis and database processing, this number reduced to 221 participants, indicating a withdrawal rate of 53.77%. The filtered sample for this study consisted of participants who were Portuguese or fluent in Portuguese language, aged between 21 and 82 years (M = 44.40; SD = 12.70), with 160 (72.4%) being female and 59 (26.7%) being male, while 2 (0.9%) preferred not to answer. Regarding the level of education of the participants, 148 (67%) had completed any degree of higher education, while the remaining 72 (32.6%) hadn't, and 1 participant (0.4%) didn't answer. This data can be consulted in Appendix B.

About the work conditions of the participants, starting with the most dominant sectors of activity, some of these were Commercial (n = 32, 14.5%), Educational (n = 27, 12.2%), and Health (n = 24, 10.9%). Regarding the type of regime in terms of online work, 16 participants (7.2%) work fully online, while 67 (30.3%) work on a hybrid regime, and the remaining 135

(61.1%) work entirely on a face-to-face regime. Lastly, concerning work hours, 181 participants (81.9%) work a full-time job, 20 (9.1%) work a part-time job, and 18 (8.1%) said to work without an established schedule. All this data can be consulted in more detail in Appendix B.

2.3. Measures

The questionnaire, which measured a total of five variables, two marker variables, and six sociodemographic questions, was the sum of various items and scales adapted from other studies.

Technostress: Organizational Context

Being composed by the five different creators in the organizational context, this variable was measured divided into these five subscales (i.e., techno-overload, techno-invasion, techno-complexity, and techno-insecurity, techno-uncertainty) as intended by Ragu-Nathan et al. (2008), who developed and validated the Technostress Questionnaire.

Every item of the five subscales were qualified quantitatively by a 5-point Likert scale ranging from 1 ("Strongly disagree") to 5 ("Strongly agree"). Higher scores mean greater levels of perceived technostress in the organizational context. The subscale techno-invasion ($\alpha = .70$) has 3 items (e.g., "I have to be in touch with my work even during my vacation due to this technology"), the subscale techno-overload ($\alpha = .83$) has 4 items (e.g., "I am forced by this technology to do more work than I can handle"), techno-insecurity ($\alpha = .82$) has 4 items (e.g., "I feel constant threat to my job security due to new technologies"), techno-uncertainty ($\alpha = .86$) also has 4 items (e.g., "There are always new developments in the technologies we use in our organization"), and the remaining subscale, techno-complexity ($\alpha = .87$), has 5 items (e.g., "I do not know enough about this technology to handle my job satisfactorily"). Each subscale is composed by the mean of their respective items, and the general scale ($\alpha = .89$) is composed by the mean of all items.

Technostress: Private Context

Due to the organizational only context of the techno-insecurity factor (i.e., fear of losing a job position), the private context scale is measured by being divided into only four technostress creators (Maier et al., 2015). Because of the focus Maier et al. (2015) give to SNS in their approach to the private context of the Technostress Questionnaire (Ragu-Nathan et al., 2008). It was also referred, at the beginning of every subscale, the type of context and technology, to better distinguish the private context items from the organizational context ones.

Every item of the four subscales were qualified quantitatively by a 5-point Likert scale ranging from 1 ("Strongly disagree") to 5 ("Strongly agree"). Higher scores in each subscale mean greater levels of perceived technostress in the private context. Regarding the number of items in each subscale, techno-invasion (α = .78) has 3 items (e.g., "I feel my personal life is being invaded by this technology"), techno-overload (α = .84) has 4 items (e.g., "I have a higher number of concerns because of increased technology complexity"), techno-uncertainty (α = .93) has also 4 items (e.g., "There are always new developments in these technologies"), and techno-complexity (α = .90) has 5 items (e.g., "I find other people know more about these technologies than I do"). Each subscale is composed by the mean of their respective items, and the general scale (α = .90) is composed by the mean of all items.

Psychological Well-being

Developed and validated by Ryff (1989) the Psychological Well-being Scale has different versions, mainly due to the number of items included. In this study, it was used the version of this scale shortened by Clarke et al. (2001), with a total of 18-items, in order to avoid getting a questionnaire too lengthy to the participants.

This version consists of 3 items for each of the six dimensions of PWB, with each item varying between a 7-point Likert scale (Ryff et al., 2007), ranging from 1 ("Strongly disagree") to 7 ("Strongly agree"), with some of the items being reversed scored. Each subscale gets its result from the sum of each item, meaning that the total score can range from 3 to 21 by subscale, and 18 to 126 in the general scale (α = .77), resulting from the sum of all items. Higher scores translate higher levels of PWB. Some examples of items for this scale include "I like most parts of my personality", "I live life one day at a time and don't really think about the future", and "I have confidence in my own opinions, even if they are different from the way most people think".

Quality of Social Interaction

Two different scales, each one composed by the mean of their item, were used separately when measuring Quality of Social Interaction (i.e., Satisfaction with Team Relationships [STR] and Quality of Interactions [QI]), in order to get a more complete measurement, since the measures used by previous authors didn't seem to get a satisfactory accuracy of this variable, or were focusing on third-party relationships (Wageman et al., 2005). In both scales, higher scores mean greater levels of perceived QSI.

Satisfaction with Team Relationships. Developed by Wageman et al. (2005), this scale (α = .67) is more focused on how individuals view their current relationships with their colleagues

and their general opinion about how they feel about those social interactions. This scale is composed by the mean of 3 items (e.g., “My relations with other team member are strained”), each ranging from 1 (“Strongly disagree”) to 5 (“Strongly agree”) in a Likert scale, with one of them being reversed scored.

Quality of Interactions. This scale is more focused on how much individuals have shared with their colleagues and how much they like to do so. Consisting by the mean of 4 items (α = .70) (e.g., “How well do you know your colleagues?”), each item varies between a 5-point Likert scale (Sun et al., 2020), ranging from 1 (“Not at all”) to 5 (“A lot”), with one of them being reversed scored.

Extraversion

To evaluate the personality trait Extraversion, it was used the NEO PI-R, developed by Costa and McCrae (1992), translated and validated to the Portuguese population by Rodrigues and Gomes (2022). This inventory evaluates the five different personality traits (i.e., Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness), but considering the focus of this study, only the Extraversion items were used, being this subscale composed by the mean of its items (α = .84).

Therefore, there were a total of 4 items (e.g., “I like to meet new people”), all varying between 1 (“Never”) and 5 (“Always”) in a Likert scale. Higher scores translate in greater levels of extraversion as a personality trait in participants.

Sociodemographic Variables

In the end of the questionnaire, were inserted sociodemographic questions (i.e., gender, education level, work schedule, remote work regime, age, job sector) in order to characterize the sample. Some examples of these questions are “What is your work schedule?” or “In what online work regime do you find yourself at the moment?”.

2.4. Marker Variables

Due to data collection taking place in a single point in time and the possible resulting common method bias (Podsakoff et al., 2003), two marker variables were inserted into the questionnaire, controlling if this bias was present or not. After searching for variables that were conceptually and theoretically distant form the other presented variables, based on literature, the chosen marker variables were *Define Mission*, in the Transition Phase Leadership Functions section

from the Team Leadership Questionnaire (Morgeson et al., 2009), and *Attitude Towards the Color Blue* (Miller & Simmering, 2022).

The *Define Mission* variable measures the perception subordinates have towards the capability of their leader to ensure that the mission of the team is as clear, compelling and challenging as possible, while being shared among team members, which according to Morgeson et al. (2009), is an important way to satisfy the team needs and directing it into accomplishing goals. The 5-point Likert has every item ranging from 1 ("Strongly disagree") to 5 ("Strongly agree"). Higher scores translate into greater levels of a participant expectation about the competence of their leader regarding the definition of the team's mission. This scale ($\alpha = .92$) is composed by the mean of all items.

Meanwhile, the variable *Attitude Towards the Color Blue* is pretty much what it states, measuring the perception participants have of the color blue, while avoiding any kind of feelings or reactions towards objects, moods or stereotypes (e.g., blue toy, "blue is a masculine color" or "blue makes me happy"), as Miller and Simmering (2022) state. The 5-point Likert has every item ranging from 1 ("Strongly disagree") to 5 ("Strongly agree"). Higher scores mean a greater level of positive attitude towards the color blue. This scale ($\alpha = .95$) is composed by the mean of all items.

2.5. Analysis

The analysis after the data collection was made in the software *Statistical Package for Social Sciences* (IBM SPSS Statistics, version 29.0.2.0). A preliminary analysis was conducted, and after reducing the initial number of participants, further database processing was made.

Thereafter, gender was coded into a dummy variable, to enable the operationalization of this variable. This was followed by the calculation of Cronbach's Alpha, making sure the reliability coefficients of every aggregated concept were acceptable according to the guidelines (Kline, 2011). Then, the composite variables were made, allowing to insert and calculate these variables into the mediation model.

Due to the literature about age showing influence between some variables in this study, this factor was placed as a control variable, contrary to gender, that didn't show any significant correlations with other variables, despite literature saying that it plays a role on some of these variables (e.g., Hsiao et al., 2017; Ragu-Nathan et al., 2008; Ryff & Keyes, 1995; Şahin & Çoklar, 2009; Shu et al., 2011).

After working the scores on the variables, a Pearson and Spearman bivariate correlation analysis was run, to check the assumptions for testing the mediation model. The hypotheses

were tested through a mediation and a moderated mediation analysis (model 4 and 14, 95% confidence interval, 5000 bootstrap samples) using the version 4.2 of macros PROCESS (Hayes, 2022).

3. Results

3.1. Descriptive Analysis and Correlations between Variables

After dealing with the psychometric issues, a descriptive and correlational analysis of the variables were made, verifying if everything was adequate to follow with the model of this study.

Looking at Table 3.1, it's possible to see that participants generally don't feel high levels of neither organizational nor private technostress, with reports usually falling into the lower half of the scale in the aggregated constructs (Organizational: $M = 2.85$, $SD = 0.76$; Private: $M = 3.02$, $SD = 0.77$). Regarding each technostress creator, the results also fall into the lower half of the scales, with the notable exception of techno-uncertainty, with participants reporting higher values in both contexts (Organizational: $M = 3.81$, $SD = 0.94$; Private: $M = 4.16$, $SD = 0.89$). This aligns with the results about PWB. Having in mind the scale results can go from 18 to 126, the reports that participants made in this study ($M = 97.55$, $SD = 12.64$) can be considered positive, meaning the participants have a good perception of their own PWB. Regarding both scales associated with QSI, the results fall into the higher half of the scale (STR: $M = 4.08$, $SD = 0.79$; QI: $M = 3.22$, $SD = 0.66$). Despite Quality of Interaction not having that much of a high level, it still shows that participants generally have a positive idea of their relationships with other people, alongside the high value of the satisfaction with the team relationships. Lastly, the scale about extraversion showed that participants generally consider themselves more on the extrovert side than the introvert one ($M = 3.41$, $SD = 0.89$).

Still analyzing the Table 3.1, where are also the Pearson and Spearman correlations between the variables of this study, it is possible to see some interesting results.

As expected, the relationship between the aggregated construct of organizational technostress is significantly related to each of its individual creators. The same happened with the aggregated construct of private technostress. It is possible to see that techno-uncertainty shows a slightly weaker correlation with the aggregated constructs, in comparison with the other technostress creators.

Regarding the relationship between organizational technostress and other variables, the aggregated variable shows a significant and negative correlation with PWB ($r = -.377$, $p < .01$), both scales of QSI (STR: $r = -.278$, $p < .01$; QI: $r = -.223$, $p < .01$), meaning that when participants feel a higher level of technostress in the workplace or context, their levels of PWB and QSI tend to decrease. On the other hand, organizational technostress didn't show a significant relation with extraversion ($r = -.028$, $p > .05$).

About each technostress creator (in the organizational context) and their relationship with other variables, techno-overload, techno-invasion and techno-insecurity creator showed, despite the naturally different values of correlation, the same relationships with PWB, QSI and extraversion that the aggregated variable reported, with the exception of techno-complexity, which only showed a significant correlation with PWB and STR, while QI no longer was significant (r = -.100, p > .05). It is interesting to note that, while techno-overload and techno-invasion had slightly weaker correlations than the aggregated technostress with the other variables, techno-insecurity showed a stronger correlation with PWB (r = -.401, p < .01), STR (r = -.332, p < .01) and QI (r = -.304, p < .01).

Looking at the private context of technostress, this variable shows very similar results to the organizational context, being the aggregated construct significantly related to each of its four creators but having a lower correlation with techno-uncertainty. The similarity continues with the aggregated variable being negatively and significantly correlated with PWB (r = -.327, p < .01), STR (r = -.242, p < .01) and QI (r = -.192, p < .01), but not with extraversion (r = -.025, p > .05), which can be translated into participant feeling lower levels of PWB and QSI when exposed to higher levels of technostress in their private lives.

In terms of the private context technostress creators, the results are also similar to the organizational context, with techno-overload and techno-invasion having the same negative and significant correlations as the aggregated variable, while techno-complexity no longer being significantly related to QI (r = -.128, p > .05). The main difference between these two contexts in terms of correlations, is the fact that techno-uncertainty in the private context isn't significantly correlated to either PWB (r = -.002, p > .05), STR (r = -.029, p > .05) or QI (r = -.076, p > .05), besides maintaining the non-significant correlation with extraversion (r = -.009, p > .05).

Regarding PWB, in addition to the correlations with technostress variables reporting very similar correlations strengths with this variable independently of the context, it also showed a positive and significant correlation with STR (r = .363, p < .01), QI (r = .276, p < .01) and extraversion (r = .205, p < .01), indicating that people who reported higher levels of PWB also had a better perception about their relationship with other people, in addition to being more extroverted.

In terms of the two scales used for the QSI variable, they showed a positive and significant correlation between them (r = .512, p < .01), and both of them also showed a positive and significant correlation with extraversion (STR: r = .211, p < .01; QI: r = .198, p < .01), showing that participants that consider themselves more extroverted tended to have a better perception

about their relationship with other people. When comparing the correlations strength between these two scales and the other variables, the STR always had stronger correlations than QI with every significant aspect of technostress, PWB, and even extraversion.

Meanwhile, the sociodemographic variable age can be seen having positive and significant correlations with various aspects of organizational and private technostress, such as aggregated organizational technostress ($r = .230$, $p < .01$), organizational techno-overload ($r = .177$, $p < .05$), organizational techno-complexity ($r = .235$, $p < .01$), organizational techno-uncertainty ($r = .189$, $p < .01$), aggregated private technostress ($r = .191$, $p < .01$), private techno-overload ($r = .153$, $p < .05$), and private techno-complexity ($r = .295$, $p < .01$). These results show that older people show higher levels of technostress in both contexts, especially when dealing with new and complex technology, and the too many tasks that come with it.

About the sociodemographic variable gender, despite literature showing evidence of this variable having influence in some of these variables, as it can be seen in the Table 3.1, there isn't any significant correlation between gender and other variables.

Lastly, about the marker variables, the Define Mission showed four positive and significant correlations, namely with PWB ($r = .257$, $p < .01$), STR ($r = .372$, $p < .01$), QI ($r = .240$, $p < .01$) and extraversion ($r = .156$, $p < .01$). Meanwhile, ATCB showed positive and significant correlations with STR ($r = .212$, $p < .01$) and extraversion ($r = .252$, $p < .01$). These results are far from ideal, considering that this sample is not free from common method bias. This fact will be discussed further in the limitations section.

Table 3.1

Means, Standard Deviations, Pearson and Spearman Correlations

	M (*SD*)	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.
1. Gender	--	--																		
2. Age	44.40 (12.70)	.085	--																	
3. Organizational Technostress	2.85 (0.76)	.012	**.230****	--																
4. Organizational Techno-overload	2.58 (1.05)	.012	**.177***	**.783****	--															
5. Organizational Techno-invasion	2.82 (1.10)	.032	.121	**.747****	**.580****	--														
6. Organizational Techno-complexity	2.44 (1.00)	-.003	**.235****	**.701****	**.482****	**.316****	--													
7. Organizational Techno-insecurity	2.51 (1.12)	.030	.133	**.770****	**.457****	**.514****	**.408****	--												
8. Organizational Techno-uncertainty	3.81 (0.94)	.007	**.189****	**.628****	**.295****	**.370****	**.312****	**.317****	--											
9. Private Technostress	3.02 (0.77)	.063	**.191****	**.766****	**.502****	**.622****	**.607****	**.560****	**.499****	--										
10. Private Techno-overload	2.71 (1.06)	.092	**.153***	**.676****	**.539****	**.633****	**.433****	**.515****	**.337****	**.846****	--									
11. Private Techno-invasion	2.85 (1.18)	.125	.044	**.564****	**.380****	**.617****	**.312****	**.488****	**.250****	**.802****	**.744****	--								
12. Private Techno-complexity	2.45 (1.03)	-.031	**.295****	**.628****	**.377****	**.354****	**.776****	**.426****	**.336****	**.761****	**.514****	**.398****	--							
13. Private Techno-uncertainty	4.16 (0.89)	.061	.022	**.374****	**.177***	**.265****	**.148***	**.234****	**.548****	**.550****	**.265****	**.321****	**.182****	--						
14. Psychological Well-being (PWB)	97.55 (12.64)	-.104	-.050	**-.377****	**-.312****	**-.272****	**-.335****	**-.401****	-.066	**-.327****	**-.374****	**-.259****	**-.319****	-.002	--					
15. Satisfaction with Team Relationships (STR)	4.08 (0.79)	-.068	-.103	**-.278****	**-.215****	**-.209****	**-.190****	**-.332****	-.049	**-.242****	**-.284****	**-.227****	**-.188****	-.029	**.363****	--				
16. Quality of Interaction (QI)	3.22 (0.66)	-.043	.087	**-.223****	**-.169***	**-.162***	-.100	**-.304****	-.038	**-.192****	**-.192****	**-.203****	-.128	-.076	**.276****	**.512****	--			
17. Extraversion	3.41 (0.89)	.056	-.104	-.028	.015	.042	-.060	-.089	-.015	-.025	.034	.028	-.088	-.009	**.205****	**.211****	**.198****	--		
18. Define Mission	3.60 (1.09)	.033	-.032	-.060	-.036	-.066	-.038	-.135	.047	-.075	-.132	-.050	-.025	-.015	**.257****	**.372****	**.240****	**.156***	--	
19. Attitude Towards the Color Blue	4.13 (0.70)	-.093	-.002	.069	.083	.052	.005	-.027	.117	.104	.066	.042	.110	.061	.073	**.212****	.070	**.252****	.084	--

Notes. *N* = Between 196 and 221. Gender: 1 = Female, 2 = Male, 3 = Prefer not to answer, 4 = Other.
**p* < .05, ***p* < .01.

3.2. Mediation Model Analysis

Considering the hypothesis H1, saying that PWB mediates the relationship between technostress (and each of its creators) and QSI, both in organizational and private context (i.e., H1a and H1b, respectively), a mediation model (model 4, Hayes, 2022) was tested for each of the variable combinations, in order to answer these questions. Similar to the moderated mediation model, bootstrapping was used, alongside a CI of 95% and the assumption that if 0 wasn't included in the CI, the effect was significant and there was a mediation (Hayes, 2022).

Based on Table 3.2, it is possible to state that hypothesis H1 was mostly supported, due to most of the indirect effects being significant, except for the indirect effects involving techno-uncertainty. This shows that PWB has a mediation role in the relationship between technostress (and most of its creators) and both scales measuring the QSI.

Table 3.2

Indirect Effects of Mediation Model (PROCESS: Model 4)

Context	Mediation	β	Boot 95% LLCI	Boot 95% ULCI
Organizational	**Technostress → PWB → STR**	**-.120**	**-.199**	**-.057**
	Techno-overload → PWB → STR	**-.080**	**-.131**	**-.037**
	Techno-invasion → PWB → STR	**-.063**	**-.110**	**-.027**
	Techno-complexity → PWB → STR	**-.088**	**-.143**	**-.041**
	Techno-insecurity → PWB → STR	**-.076**	**-.129**	**-.032**
	Techno-uncertainty → PWB → STR	-.017	-.063	.022
	Technostress → PWB → QI	**-.070**	**-.130**	**-.020**
	Techno-overload → PWB → QI	**-.049**	**-.091**	**-.019**
	Techno-invasion → PWB → QI	**-.040**	**-.073**	**-.014**
	Techno-complexity → PWB → QI	**-.056**	**-.100**	**-.018**
	Techno-insecurity → PWB → QI	**-.041**	**-.076**	**-.005**
	Techno-uncertainty → PWB → QI	-.012	-.044	.014
Private	**Technostress → PWB → STR**	**-.106**	**-.176**	**-.050**
	Techno-overload → PWB → STR	**-.085**	**-.138**	**-.040**
	Techno-invasion → PWB → STR	**-.056**	**-.099**	**-.023**
	Techno-complexity → PWB → STR	**-.085**	**-.143**	**-.040**
	Techno-uncertainty → PWB → STR	-.001	-.035	.038
	Technostress → PWB → QI	**-.069**	**-.127**	**-.025**
	Techno-overload → PWB → QI	**-.056**	**-.101**	**-.019**
	Techno-invasion → PWB → QI	**-.039**	**-.071**	**-.014**
	Techno-complexity → PWB → QI	**-.053**	**-.10**	**-.015**
	Techno-uncertainty → PWB → QI	-.001	-.026	.026

Notes. N = Between 188 and 196. Age used as control variable. CI = 95% (bootstrapping). Data in bold are the significant mediation models.

But what does the negative and significant values of effect in Table 3.2 mean? Considering the negative relationship between technostress and PWB, but the positive relationship between PWB and both QSI scales, the data in Table 3.2 shows that an individual's perceived level of technostress will have a contrary effect on PWB and, consequently, on QSI (e.g., if I feel high levels of technostress, my PWB will get lower, also decreasing my QSI with others).

With these results about the indirect effects, it was interesting to find if the direct effects were also significant or not. Based on Table 3.3, it is possible to verify that some of these direct effects are significant, but not the majority of them, meaning that when PWB is completely taken from the model, there are still some aspects of technostress that affect QSI.

Table 3.3

Direct Effects of Mediation Model (PROCESS: Model 4)

Context	Interaction	β	95% LLCI	95% ULCI
Organizational	Technostress → STR	-.126	-.275	.023
	Techno-overload → STR	-.056	-.163	.050
	Techno-invasion → STR	-.071	-.168	.026
	Techno-complexity → STR	-.034	-.146	.078
	Techno-insecurity → STR	**-.133**	**-.233**	**-.033**
	Techno-uncertainty → STR	.009	-.104	.121
	Technostress → QI	**-.166**	**-.292**	**-.040**
	Techno-overload → QI	-.077	-.167	.012
	Techno-invasion → QI	-.071	-.154	.012
	Techno-complexity → QI	-.042	-.137	.052
	Techno-insecurity → QI	**-.158**	**-.242**	**-.073**
	Techno-uncertainty → QI	-.022	-.119	.074
Private	Technostress → STR	-.101	-.244	.042
	Techno-overload → STR	-.097	-.203	.010
	Techno-invasion → STR	**-.090**	**-.181**	**-.000**
	Techno-complexity → STR	-.036	-.148	.075
	Techno-uncertainty → STR	.008	-.109	.125
	Technostress → QI	-.118	-.238	.007
	Techno-overload → QI	-.084	-.175	.007
	Techno-invasion → QI	**-.083**	**-.160**	**-.006**
	Techno-complexity → QI	-.075	-.171	.022
	Techno-uncertainty → QI	-.014	-.115	.087

Notes. N = Between 188 and 196. Age used as control variable. CI = 95% (bootstrapping). Data in bold are the significant interactions.

Findings in age

Due to the role age showed during past literature, as mentioned previously in the state of art and the method sections, this variable was used as a control variable in every mediation model, to confirm if age had any influence on these.

After analyzing the influence of age towards PWB and QSI in the mediation model (Appendix C – Table C.1 and C.2), this variable only had a positive and significant influence in some mediation models where the scale QI was included, and always presented weak values and CI very close to 0.

Considering those results, a linear regression for age and each scale of interest (i.e., PWB, STR scale, QI scale), in simplify and better determine what exactly is the impact of age in predicting these variables. Based on Table 3.4, age can't be considered a significant predictor of any tested variable, considering the *p*-values it showed, meaning that both younger and older participants feel similar levels of PWB and QSI.

Table 3.4

Linear Regression with Age as Predictor of PWB, STR or QI

Regression	B	Sig.
Age → PWB	-.050	.490
Age → Satisfaction with Team Relationship (STR)	-.006	.138
Age → Quality of Interaction (QI)	.005	.208

Notes. N = Between 196 and 209.

Quality of social interaction explained by predictors

Lastly, it may be interesting to explore and understand how much variance in the QSI is explained by technostress and PWB, in order to better understand the role of these predictors onto QSI. To do this, the R-squared in every mediation model was analyzed with and without PWB, enabling a more accurate exploration of the influence this variable has on the relationship between technostress and QSI.

In Table 3.5, besides the R-squared with PWB and without it, there's delta R-squared, indicating the proportion of variance in QSI explained by the mediation role of PWB (this proportion is calculated by the difference between R^2 with PWB and R^2 without PWB, which is then multiplied by 100, getting the percentage of explanation that mediation model has on QSI). Once again, because the mediation models including techno-uncertainty weren't significant, these couldn't be considered in the first place. Regarding the other mediation models, all showed a positive value in delta R-squared, showing variance difference between 2.4% and 10.1%, meaning that when PWB is included in the model, QSI is even more explained by this model than the one without PWB.

Still looking at Table 3.5, it is possible to state that while the mediation model without PWB explains between 3.2% and 12.6% of QSI variance, depending on the approach of

technostress and which scale was used to evaluate QSI, the model with PWB explains between 9.2% and 15.9% of the variance in QSI.

Despite these models not explaining a very large portion of QSI variance, it is important to look at the results in light of literature, to better understand the implications these results have this rationale, which will be discussed in the respective section to do so.

Table 3.5

R-squared With and Without PWB, and Delta R-squared (PROCESS: Model 4)

Context	Mediation	R^2 with PWB	R^2 without PWB	ΔR^2
Organizational	**Technostress → PWB → STR**	**.141**	**.066**	**.075**
	Techno-overload → PWB → STR	**.140**	**.043**	**.097**
	Techno-invasion → PWB → STR	**.138**	**.046**	**.092**
	Techno-complexity → PWB → STR	**.136**	**.035**	**.101**
	Techno-insecurity → PWB → STR	**.159**	**.101**	**.058**
	Techno-uncertainty → PWB → STR	.127	.009	.118
	Technostress → PWB → QI	**.121**	**.084**	**.037**
	Techno-overload → PWB → QI	**.112**	**.051**	**.061**
	Techno-invasion → PWB → QI	**.105**	**.047**	**.058**
	Techno-complexity → PWB → QI	**.092**	**.032**	**.060**
	Techno-insecurity → PWB → QI	**.150**	**.126**	**.024**
	Techno-uncertainty → PWB → QI	.090	.012	.078
Private	**Technostress → PWB → STR**	**.137**	**.051**	**.086**
	Techno-overload → PWB → STR	**.143**	**.070**	**.073**
	Techno-invasion → PWB → STR	**.156**	**.059**	**.097**
	Techno-complexity → PWB → STR	**.136**	**.039**	**.097**
	Techno-uncertainty → PWB → STR	.125	.009	.116
	Technostress → PWB → QI	**.107**	**.058**	**.049**
	Techno-overload → PWB → QI	**.106**	**.062**	**.044**
	Techno-invasion → PWB → QI	**.121**	**.060**	**.061**
	Techno-complexity → PWB → QI	**.095**	**.047**	**.048**
	Techno-uncertainty → PWB → QI	.086	.014	.072

Notes. N = Between 188 and 196. Age used as control variable. CI = 95% (bootstrapping). Data in bold are the significant values ($p < .05$).

3.3. Moderation Mediation Model Analysis

Trying to answer the hypothesis H2, stating that moderation has a negative role has a moderator of the indirect effect between technostress (and each of its creators) and QSI, through PWB, a moderated mediation model (model 14, Hayes, 2022) was tested for each of the variable combinations, including the organizational and private context (i.e., H2a and H2b, respectively).

As mentioned in the method section, the model was analyzed through bootstrapping and a confidence interval (CI) of 95%, and if 0 wasn't included in this CI, it could be assumed that there were significant effects and, therefore, a moderated mediation (Hayes, 2022).

In Table 3.6, the moderated mediation indexes can be found. Despite analyzing every combination of possible variables in this study (i.e., different technostress contexts, aggregated or disaggregated technostress approaches, different QSI scales) that could indicate a significant role of moderation in this mediation model, this was found to be incorrect, as none of the results are significant, meaning the participants being more or less extroverted didn't make any difference in the way technostress and PWB affected any form of QSI.

Table 3.6

Index of Moderated Mediation (PROCESS: Model 14, with Extraversion)

Context	Conditioned indirect effects	Index	Boot SE	Boot 95% LLCI	Boot 95% ULCI
Organizational	Technostress → PWB → STR	.015	.032	-.042	.089
	Techno-overload → PWB → STR	.017	.021	-.019	.063
	Techno-invasion → PWB → STR	.004	.015	-.023	.038
	Techno-complexity → PWB → STR	.019	.023	-.024	.068
	Techno-insecurity → PWB → STR	.014	.022	-.025	.065
	Techno-uncertainty → PWB → STR	.001	.007	-.008	.020
	Technostress → PWB → QI	.021	.027	-.030	.074
	Techno-overload → PWB → QI	.008	.016	-.026	.039
	Techno-invasion → PWB → QI	.006	.013	-.020	.033
	Techno-complexity → PWB → QI	.015	.019	-.025	.052
	Techno-insecurity → PWB → QI	.018	.021	-.022	.061
	Techno-uncertainty → PWB → QI	.002	.006	-.010	.016
Private	Technostress → PWB → STR	.009	.028	-.037	.071
	Techno-overload → PWB → STR	.006	.023	-.031	.058
	Techno-invasion → PWB → STR	.003	.014	-.019	.036
	Techno-complexity → PWB → STR	.003	.024	-.040	.054
	Techno-uncertainty → PWB → STR	-.000	.005	-.012	.010
	Technostress → PWB → QI	.013	.023	-.035	.057
	Techno-overload → PWB → QI	.009	.018	-.029	.044
	Techno-invasion → PWB → QI	.005	.012	-.019	.031
	Techno-complexity → PWB → QI	.008	.020	-.033	.045
	Techno-uncertainty → PWB → QI	-.000	.004	-.010	.008

Notes. N = Between 185 and 193. Age used as control variable. CI = 95% (bootstrapping).

Considering extraversion doesn't play a moderation role in this moderated mediation model, translating into the rejection of the main hypothesis of this study, the Table 3.7 was made based on the coefficient values of a possible moderating role of extraversion between PWB and QSI.

Table 3.7

Interaction Coefficients between PWB, QSI and Extraversion (PROCESS: Model 14, with Extraversion)

Context	Mediation	Coeff.	95% LLCI	95% ULCI
Organizational	Technostress → PWB → STR	-.002	-.011	.007
	Techno-overload → PWB → STR	-.004	-.014	.005
	Techno-invasion → PWB → STR	-.001	-.010	.008
	Techno-complexity → PWB → STR	-.004	-.014	.005
	Techno-insecurity → PWB → STR	-.003	-.012	.006
	Techno-uncertainty → PWB → STR	-.001	-.010	.008
	Technostress → PWB → QI	-.003	-.011	.004
	Techno-overload → PWB → QI	-.002	-.010	.006
	Techno-invasion → PWB → QI	-.002	-.010	.006
	Techno-complexity → PWB → QI	-.003	-.011	.005
	Techno-insecurity → PWB → QI	-.004	-.011	.004
	Techno-uncertainty → PWB → QI	-.002	-.000	.014
Private	Technostress → PWB → STR	-.002	-.011	.007
	Techno-overload → PWB → STR	-.001	-.010	.008
	Techno-invasion → PWB → STR	-.001	-.010	.008
	Techno-complexity → PWB → STR	-.001	-.010	.008
	Techno-uncertainty → PWB → STR	-.002	-.011	.008
	Technostress → PWB → QI	-.002	-.010	.005
	Techno-overload → PWB → QI	-.002	-.010	.006
	Techno-invasion → PWB → QI	-.002	-.009	.006
	Techno-complexity → PWB → QI	-.002	-.009	.006
	Techno-uncertainty → PWB → QI	-.002	-.010	.006

Notes. N = Between 185 and 193. Age used as control variable. CI = 95% (bootstrapping).

By looking at Table 3.7 and seeing that every interaction's CI goes through 0 and can't be considered significant, it can be confirmed that extraversion also doesn't have a moderation role between PWB and QSI in any of the presented models.

Even though extroversion doesn´t have any type of influence over the analyzed moderated mediation model or the variables in this study, there is still another hypothesis (H3) to explore.

3.4. Technostress in Organizational and Private Context

Considering the third and last hypothesis of this study (i.e., H3) regarding the comparison of results between the organizational and private technostress contexts, alongside the different results obtained in this section, a paired samples t-test was made to get a more accurate conclusion about this comparison in aggregated technostress and each creator.

The Table 3.8 compiles the t-test made for the aggregated technostress and each technostress creator, except techno-insecurity, due to its inexistence in the private context. As it is possible to see, only the aggregated technostress and techno-uncertainty showed significant results, with people feeling higher levels of private technostress and private techno-uncertainty than their organizational equivalents, while the rest of technostress creators have no significant differences between contexts.

Table 3.8

Paired Samples T-test for Technostress and its Creators' Contexts

Variables	*Difference between M*	*t*	One-sided *p*	Two-sided *p*
Organizational technostress - Private technostress	**-.171**	**-4.857**	**<.001**	**<.001**
Organizational techno-overload - Private techno-overload	-.110	-1.618	.054	.107
Organizational techno-invasion - Private techno-invasion	-.057	-.840	.201	.402
Organizational techno-complexity - Private techno-complexity	.002	.040	.484	.968
Organizational techno-uncertainty - Private techno-uncertainty	**-.343**	**-5.720**	**<.001**	**<.001**

Notes. N = Between 210 and 221. Data in bold are the significant values ($p < .05$).

4. Discussion

The background around all the variables included in these models resulted in three questions surrounding this study: (1) “Does technostress influence the quality of social interaction through its impact on the psychological well-being of people and does this differs between the organizational and private context?”; (2) “Do extroverted and introverted individuals show differences in how PWB impacts the quality of their social interactions?”; and (3) “Does technostress act differently between the organizational and the private context?”. Seeing how the results turned out, these questions were properly answered, despite needing some back and forth to go through every aspect about them.

This study had four main objectives, starting with the integration of JD-R theory and COR model in both technostress contexts, followed by studying the simple mediation of technostress (using both the aggregated and the disaggregated approach) and QSI through PWB, then exploring extraversion as a moderator between PWB and QSI, and lastly comparing every result of these models between the organizational and private context. Considering the results obtained, it is possible to say that this study was capable of reaching all of them with the chosen methodology and interpretation.

Looking at the hypotheses of this study, PWB showed a mediation role in the relationship between technostress (and its divided creators) and QSI (i.e., H1) in both organizational and private context (i.e., H1a and H1b, respectively), supporting the first set of hypotheses. The hypotheses regarding the moderation role of extraversion in the relationship between PWB and QSI of the same mediation model (i.e., H2) were rejected by the results in both context (i.e., H2a and H2b). Lastly, the hypothesis approaching the comparison between technostress contexts (i.e., H3) was partially confirmed, with only some of technostress aspects showing any significant differences between the organizational and private context. The next section will better approach and analyze what exactly was discovered.

4.1. Mediation Model Results Interpretation

Even if the moderated mediation model didn’t show any significant results, the same cannot be said about the simple mediation model. Generally speaking, the results of the moderation model go along with the literature about all the variables, considering the mediation effect that PWB showed on the relationship between technostress and QSI. In order to better understand what exactly is align or not with previous authors, this interpretation was divided based on each main topic.

General conclusion of the mediation model

As previously said, the mediation model showed significant results and aligned with the majority of the literature behind it. Looking at the results, almost every model showed that PWB has a mediation role on the relationship between technostress and QSI, with only the exception of techno-uncertainty in both contexts (Table 3.2), making further interpretations only focus on the mediations that were significant.

This shows that people really feel their QSI decreasing due to higher levels of technostress (and even the majority of its individual creators), but mostly as a consequence of the impact technostress has on PWB, which will then influence their QSI. Considering that this mediation model is the first one to be tested, to the best of our knowledge, these results don't replicate any other study, but they do align with the suggestion Nastjuk et al. (2023) made about the use of a mediation model about the impact of technostress on a behavioral outcome, through a psychological one.

Aggregated and disaggregated approach on technostress

Based on the work of Nastjuk et al. (2023), technostress was operationalized in different ways throughout the present study, being divided and analyzed as an aggregated construct (i.e., every item of each technostress creator together) and a disaggregated one (i.e., analyzing each technostress creator as its own variable). Each approach has its advantages (Nastjuk et al., 2023), but considering the purpose of this study, it made sense to see the differences between them.

In Table 3.2, it can be seen that aggregated technostress always reported stronger significant indirect effects than its individual creators in both contexts and QSI scales, which is something that didn't really happen to other studies, despite the different approach and model with these exact variables. The closest it is possible to compare is Nastjuk et al. (2023), that didn't get this stronger effect on the aggregated technostress, but rather in individual creators. This might mean that the aggregated technostress just has increased reliability due to the reduction of possible error, adding up to a cumulative and consistent effect, ultimately being interpreted as technostress as a whole capturing more information about how it affects QSI through PWB.

The same doesn't happen about the direct effect in Table 3.3, where most of the direct effect aren't significant. Focusing on the significant models, these are: (a) techno-insecurity in organizational context and both QSI scales; (b) techno-invasion in private context and both QSI scales; and (c) organizational aggregated technostress, but only when paired with the QI scale. Still on Table 3.3, this organizational aggregated technostress presented a stronger direct effect than any other significant direct effect, being the interpretation about this result the same as

above, stating that aggregated technostress captures a more cumulative and consistent effect than just its individual creators (the reasoning behind differences between QSI scales will be explained further, in the respective section). Regarding the rest of the results about the direct effects, it is interesting that techno-insecurity (i.e., in organizational context) and techno-invasion (i.e., in private context) are the only technostress creators showing significant direct effects. About techno-insecurity, (being the only exclusive technostress creator due to its nature on fear of losing a job position), these results are most likely related to this exact nature, considering that participants who feel a certain fear and antagonism towards some coworkers due to knowledge difference and sharing, must be more likely to feel a lesser quality in their relationships with those colleagues. Now, regarding the private technostress context, techno-invasion being the only significant direct goes along the rationale of Rotondi et al. (2017), saying that intrusive usage of a smartphone and other ICTs may have negative impact on face-to-face interactions, alongside the rationale of the eudaimonic perspective of well-being, stating that intrusive technologies are easier to be an obstacle to happiness of an individual, especially because it doesn't have any real meaning or purpose in an individual's life (Ryff & Singer, 2008), considering that this private usage is generally more leisure oriented (Nastjuk et al., 2023).

Organizational and private technostress

Adding more detail to the results, the differences between technostress context will be interpreted. Looking at the results of Nastjuk et al. (2023) stating that people feel higher levels of technostress in the private context, it was expected to happen the same way in the mediation models, which was confirmed to be the case.

In Table 3.2, it's possible to see a balance between each context values, with some higher in organizational context, while other are lower than the private context, despite all values being relatively close from one another. Considering the method used to test this, it was then used paired samples t-tests with aggregated technostress and each of its creators included (Table 3.8), trying to get more conclusive results about these differences between contexts, while simultaneously trying to generalize these results to more than just the sample tested in the present study. The results in the t-tests were slightly different from the ones in Table 3.2, with only techno-overload, techno-invasion and techno-complexity showing no significant differences between contexts, while aggregated technostress and techno-uncertainty showed higher levels on people's private context, going along the general conclusion of previous literature.

When interpreting the results of their study, Nastjuk et al. (2023) state various educated guesses why people showed higher levels of private context technostress than the organizational one, saying it could be due to a switching cost derived from abandoning one private device to go learn about other, creating a spiral of technostress with new private devices (Maier et al., 2015), while two other possibilities are the utilitarian implicit organizational norms that encourage workers into maintaining and learning a certain ICT, forcing people to adapt their work to specific tools, mitigating organizational technostress (Beaudry & Pinsonneault, 2005; Maier et al., 2015), or the investment organizations have on ICT support services and formation (Tarafdar et al., 2011; Weinert et al., 2020). Applying these possibilities to the present study, it's possible that one or more of these contribute to higher levels of technostress in private contexts, but not on every aspect of technostress, considering the more balanced results between the previously referred creators.

It's still interesting to point out that aggregated technostress shows this difference, considering that only one of its creators shows significant higher levels in private context, being the creator in question techno-uncertainty, the only one not reporting significant results in the mediation model (Table 3.2).

Quality of social interaction scales

Seeing all the properties of the results, the only major variable change left to analyze is the difference between both QSI scales. These were divided in order to get a more complete view about this variable, with STR scale approaching a more current opinion of how participants feel towards their team social interactions, while QI scale captures more about how much participants feel they shared with others and how much they like to do so.

When talking about QSI, it shows an importance comparable to the quantity of these same social interactions, with people feeling happier when certain conversational and relational features of social interactions are met, such as the depth of the conversation, or feeling a positive opinion and intimacy with the person they interact (Sun et al., 2020). On the other side, threats to PWB (e.g., depression symptoms) already showed an impact on how people have these social interactions, showing a lack in these conversational and relational features (Gloster et al., 2021, Nezlek et al., 1994; 2000).

The results in this study indicate that both scales are effective in capturing these previous assumptions (Table 3.2), considering the significant values that the mediation models had in both scales. About differences between these scales, despite not being that big of a difference, STR always showed higher values than the QI scale equivalent models. This finding might be

related to the way high levels of technostress affect PWB of participants, and despite of the report about a higher decrease in how participants generally look at their own relationships, it doesn't seem to deteriorate so much the perception they have about their conversational and relational features in social interactions in their team. This might seem to go against the previous mentioned literature, but both scales still show negative values in their mediation models. Despite not finding any plausible explanation in the literature about this difference between scales, it can be made an assumption that this decrease in PWB levels don't affect participants' view of previous experiences they had with other people (i.e., as QI tries to capture) as much as it affects the way they evaluate their current relationships (i.e., as STR is more focused on).

Age's role

As previously said, age was used as a control variable in the model, due to its significant but inconclusive role in previous literature (Ragu-Nathan et al., 2008; Shu et al., 2011).

After analyzing the results about age towards QSI and PWB in the Tables C.1 and C.2, located in Appendix C, it was concluded that this variable needed more attention to it, considering that it presented significant values, even if in small levels and CI very close to 0, which could be just looked over. It was then tested a linear regression between age and each of the scales regarding the relevant variables (i.e., PWB scale, STR scale, and QI scale), trying to determine if age really had significant influence in these. Based on the results obtained in Table 3.4, age can't be considered a significant predictor of neither PWB nor QSI.

These results translate into both younger and older participants don't have their PWB or QSI affected differently because of their age, showing different results from either Ragu-Nathan et al. (2008) and Shu et al. (2011).

Trying to explain this, it may indicate two things: (a) considering the fact that Ryff and Keyes (1995) state that age tends to impact differently various PWB dimensions (i.e., older people report lower levels of Purpose in Life and Personal Growth, contrary to Environmental Mastery, Positive Relations with Others and Autonomy, where younger people are the ones reporting lower levels), while the present study approach PWB as one single and aggregated variable, it may have balanced the results, hiding potential differences between younger and older people; (b) that contrary to what previous authors stated (e.g., Carstensen, 1992; Charles & Piazza, 2007; Luong et al., 2010; Truxillo et al., 2012), age doesn't really showed a significant role with QSI, maybe do to possible culture differences in Portuguese people or organizations.

Mediation model explanation in results variance

Lastly, now that every aspect about the results is covered, remains an important aspect about every mediation model: exactly how much do the predictor and mediator explain the variance in the outcome variable? And how does this variance changes between the different models in this study?

But first let's focus on what didn't show any significant values in all mediation models: techno-uncertainty. Techno-uncertainty contradicts every other result regarding technostress and its creators, not showing any significant results when in the mediation model with both scales of QSI (Table 3.2). Looking for a viable reason to this phenomenon, it is possible to speculate about how the scale is written and then interpreted, due to the less direct connection to the feelings of technostress (e.g., "There are always new developments in the technologies we use in our organization"). Despite techno-uncertainty trying to pick the way people feel about the constant changes in technology, the scale may not induce enough the participants into reporting exactly that feeling, but instead just their opinion if these statements are true or not, regardless of participants' low or high levels of technostress due to that. Despite not showing the exact results, Nastjuk et al. (2023) also has its techno-uncertainty showing results closer to 0, even if they were significantly related to psychological and behavioral outcomes. This might give strength to the explanation on why techno-uncertainty didn't present any significant result in the present study.

Now approaching what was significant (i.e., the rest of the mediation models), they present interesting results regarding on how much technostress (and its creators) and PWB explain the variance in both QSI scales.

Firstly, when looking at the Table 3.5, it's possible to see that the variance in QSI with PWB included always show higher values than without PWB included, being this a very positive finding, because of the mediation model being capable of better predict and understand how QSI changes in people. The values are not that high (i.e., between 9.2% and 15.9%), but considering the large pool of factors involving how people interact with each other, it's only natural for the values to go until certain values with simple mediation models. Looking at the difference between variance in models with and without PWB included, these values going between 2.4% and 10.1%, meaning that people suffer more from technostress when it affects their PWB, having practical implications about how this issue could be approach, that will be explored further, in the designated section.

When searching for differences in variance between the aggregated technostress and its individual creators, the aggregated technostress no longer shows the highest values, but instead

its techno-insecurity that presents the highest variance in the organizational context, while techno-invasion presents it in the private context. This is very interesting considering two factors: (a) the fact that these technostress creators in these contexts were the ones who presented a significant direct effect in Table 3.3; (b) techno-insecurity shows the lowest results of difference in explained variance both in QI and STR scales, but techno-invasion in the private context shows the also the highest results of difference in explained variance both in QI and STR scales. Once again, these results might originate from the nature of each technostress creator, with techno-insecurity affecting more of people's QSI even if PWB is not affected, when compared to other creators, due to its direct nature with shared information and social relationships. Regarding techno-invasion, this higher difference of explained variance between models with and without PWB might be interpreted as this creator affecting the most of this mediator, due to the pleasure-based usage of technology.

Looking at both contexts, these results also didn't present any relevant unbalances between organizational and private contexts, showing PWB has a similar role in both of them.

Finally, the differences between QSI scales don't really show when looking at the variance of models without PWB, but when verifying the variance of models with PWB and the difference in explained variance between models with and without PWB, it's relevant to point out that STR scale always show higher values than the QI scale. This comes to show the heavier role of PWB in the STR scale. A possible interpretation to this is the way people look at their current relationships when having lower levels of PWB, despite not eliminating what happened in past social interactions and how people feel about other people.

4.2. Moderated Mediation Model Results Interpretation

Despite Lopes et al. (2005) saying that there are many different factors that impact the QSI of individuals with other people, Sun et al. (2020) stated that extraversion was one of the factors that needed more attention to define the impact that it had on social interactions, due to the ambiguous results the authors obtained in their study. As such, it was suggested the use of this personality trait as a moderator between well-being and QSI, which was tested in the present model.

In the end, even though extraversion showed significant correlations with PWB and both scales of QSI, it was verified that extraversion didn't play any significant role as a moderator between PWB and QSI, presented in every mediation model tested, independently of the approach and context of technostress (Table 3.6). This, in a certain way, could be expected,

considering the study of Sun et al. (2020) and their ambiguous results on extraversion as a moderator between well-being and QSI.

The interpretation that can be made based on these results is that, despite extroverted people presenting an easier time having higher QSI with other people (Sun et al., 2020), it seems that extroverted and introverted people have a similar impact of PWB on the quality of their social interactions. Nonetheless, it's relevant to note that the sample in this study might not have enough participants to test adequately this moderated mediation model, showing to be a possible limitation.

These results then reject the hypothesis that extraversion negatively moderates the indirect effect between technostress and quality of social interaction through psychological well-being. Not only that, but also rejects the sub-hypotheses that it could happen in the organizational or private context of technostress (i.e., H2a and H2b).

Even after these rejections, it was also verified if extraversion played any moderating role between PWB and QSI, without the influence of technostress (Table 3.7). The results of this possibility were also shown not significant, meaning that extroverted people didn't seem to be less or more affected by PWB in their QSI with others.

4.3. Limitations

Overall, this study showed many positive aspects about it, with various obstacles taken in consideration. Nonetheless, critically analyzing it, the study presented some limitations, some of which may be a reason to further explore different aspects of technostress and its relationship with PWB and QSI, but others, in the worst-case scenario, may compromise the results. Let's then talk about each one of these.

As already mentioned, the number of participants in this study reduced to less than half after filtering the sample according to the requirements and percentage of the questionnaire each participant answered. In order to try and maximize this factor, if a participant didn't answer a pair of questions, they would remain in the sample, resulting on a total of 221 participants, despite this, when analyzing the moderated mediation model, this number decreased to numbers between 185 and 193, depending on what variables where in the model. Despite this numbers being adequate for the mediation model, it is a small sample for the moderated mediation model. Still regarding the sample, this was collected through a convenience method, being a limitation by itself, due to a smaller probability of a generalized and random sample of the population.

Another limitation regarding the method of this study is that an important aspect included in this study was the insertion of two marker variables, with an objective to verify the potential

existence of the common method bias, due to the data collection taking place in a single point in time (Podsakoff et al., 2003). Despite the variable Define Mission being showed significantly values with PWB, QI, STR and extraversion in Table 3.1, in some way it could be connected to the impact that a general good leadership may have in most of these aspects, due to some misunderstanding by some participants about this scale. But the fact that the variable ATCB also showed significant correlations with STR and extraversion is most likely due to the common method bias, being because of the bigger questionnaire's length or simply a spurious occurrence. Either way, this goes to be a strong limitation of the study, making each result an uncertain one, due to the constant application of the significantly correlated variables.

Still in a methodologic view, being this study correlational, it is impossible to say for sure that these variables have causal relationships, which may make sense in terms of how PWB and QSI relate to each other, as seen in other studies (e.g., Gloster et al., 2021, Nezlek et al., 1994; 2000), that approach the reverse effect between social interactions and well-being. Still, there doesn't seem to be literature explicitly saying that PWB affects people about their feeling of technostress, for example. To better explore and understand if these relationships really present any causality, it would be positive to do more longitudinal and qualitative studies with the present models.

Looking at a more conceptual side of the limitations, the study also a limitation for each variable on the mediation model (i.e., technostress, PWB, and QSI).

Firstly, during this study, a really big focus is given to technostress creators. Despite this, literature sometimes also refers technostress inhibitors, something that was left out to maintain a balanced level of complexity in this study, specifically considering the exploration of a completely new mediation model, while exploring many differences between various aspects of technostress. Nonetheless, it may be important to explore these inhibitors in the future, in order to better understand the integration of the joint COR model and J-DR theory and its application to technostress and its outcomes.

Secondly, regarding the PWB, as technostress inhibitors were not included in this study, the disaggregated approach of Ryff's six factors model was also left out for two main reasons: (a) to maintain the complexity of this study on a balanced level; and (b) to maintain the length of the questionnaire as minimum as possible, considering that, to use the six dimensions of PWB separately, it was needed more than just the 18-item scale, making the questionnaire to extensive. This is considered a limitation due to the potential of this variable not being used completely, potentially hiding some interesting aspects about this model.

Lastly, the limitation about QSI is a mixture of a method and conceptual problem. Sun et al. (2020) tries to examine the relationship between quality of social interaction and well-being through more than self-report from the participants, because of the big reliance previous studies have with this method. Despite this, the present study explored the topic around self-report, turning into a limitation that may affect the results.

4.4. Implications

As any study, this one has some implications attached, being either theorical or practical, these are always interesting to explore, in order to give real meaning to the results obtained by understanding how it can impact the literature and people's life, even if just by adding a piece of the puzzle.

Theorical implications

Regarding the sample of this study, completely focused on the Portuguese population, it is always positive to contribute to less common explored nationalities, globally speaking.

While searching for specific interactions between the used variables, it was noticeable the lack of depth about some aspects in the literature of technostress, such as the differences between aggregated technostress and individual technostress creators, differences between organizational and private context of technostress, the exact impact and relationship technostress (and each of its creators) has on psychological and behavioral outcomes. This study tried to examine all these aspects, grabbing on Nastjuk et al. (2023) of exploring the mediation effect of a psychological outcome in the relationship between technostress and one of its behavioral outcomes, while searching for differences in the results based on the way technostress was measured, and the context it was in. Considering technostress is a relatively new variable, it is normal that there aren't studies approaching every single aspect about it, the same way there will be studies after this one approaching new ways to explore this variable.

Another variable that also has some room for improvement is QSI, considering the many ways authors use to name, measure, or interpret it (Elmer et al., 2023; Sun et al., 2020; Vilela & Ranhel, 2017). Trying to understand the differences two different scales had on this mediation model was essential to try verifying the way people interpret the questions in each scale, and how that changes the results in the study.

Regarding the relationship of QSI with PWB and technostress, it is important to note that despite the usual exploration of PWB and interpersonal relationships being made from the relationship to the effect it has on well-being, in this study it was made an inverted approach,

not only because of the need to explore the mediation from technostress to a behavioral outcome through a psychological outcome, but also to contribute to the literature about these variables, that may still be lacking more in depth studies about this two way relationship (Elmer et al., 2023). About the relationship between QSI and technostress, this study will help to better understand the way only some of technostress (e.g., techno-insecurity and techno-invasion) impacts QSI, while the rest is mediated through PWB.

Despite the rejection of the hypothesis regarding the moderator role of extraversion between PWB and QSI, it is important to note that extraversion may not have a significant connection as a mediator, and that this personality trait in people doesn't really impact the quality of their social interactions, considering the results of Sun et al. (2020) and this study, despite having the already referred limitation.

In sum, this study can be seen as very contributive due to the models and respective relationships that were explored, and it's important that future studies use and improve the conclusions made in here.

Practical implications

Equal to the theoretical implications, it's possible to these results to have practical implications, if applied by someone on Portuguese population, taking into account that is the population worked around in this sample.

First of all, it is essential to understand that technostress is not the only cause of PWB and QSI decrease, and that individuals may show these outcomes due to other factors, if we take the results of this study as base. With this in mind, looking to the organizational context, the first practical implication is the mentality when developing other practices to approach technostress, such as team buildings. These may be complemented with PWB and QSI related themes and activities, in order to understand if and which coworkers really feel technostress, and which ones may suffer from other psychological and behavioral threatening factors. Still on this note, team buildings will always be relevant to increase the relationships between coworkers (Klein et al., 2009; Rosenfeld & Richman, 1997), but when taking in consideration the results in this study, maybe creating ICT thematic team buildings could lead to better interpersonal support in these problems that some workers may have. It could serve as a tool to workers that better understand these technologies pass on knowledge to less informed colleagues, preventing sensation of constraint in future real situations, relieving techno-insecurity.

Regarding a more general context perspective, Galluch et al. (2015) suggest that better use of ICT lead into individuals being more capable to overcome potential technostress episodes, and considering the impact that technostress showed on both PWB and QSI in this study, it most certain the importance to creating and encourage people into more ICT training and workshops. It is known that negative psychological and behavioral outcomes hold many consequences that individuals want to avoid (Califf et al., 2020; Maier et al., 2014; Ragu-Nathan et al., 2008; Tarafdar et al., 2019), and despite technostress not being the only concern to take in consideration, as seen by the results here present, it's certainly one of them, being as important to prevent as other PWB and QSI disruptors, such as loneliness and work-family conflict (Hong et al., 2023; Obrenovic et al., 2020).

4.5. Future Studies

Of course, every puzzle has many pieces, and because it's impossible to complete it without every single one, or even correcting some corners that may need improvements, this section is dedicated to suggesting what could be some pieces to explore or improve in future studies.

This study helps to understand what technostress creators have greater impact and need more attention in the day-to-day life. From here, it would be interesting to explore exactly what practices can be put in practice in order to effectively decrease the level of these specific technostress creators.

As said in the limitations section, it was not possible to explore the role of technostress inhibitors in the theoretical bases of technostress in this study (i.e., COR model and J-DR theory) and their potential impact on how technostress affects individuals' thoughts and behaviors. Independently of what next studies focus on, it may be relevant to see what influence technostress inhibitors have.

Also included in the limitations section, a suggestion for next studies is to approach Ryff's PWB scale the same way technostress was in this study, with an aggregated and a disaggregated analysis, to better understand the relationships between these variables and each other's dimensions.

Regarding the QSI, it's stated by Sun et al. (2020) that literature hasn't still understood how the intimacy between two individuals makes a difference on the QSI, and based of the scales and models used in this study, it's still inconclusive if it makes a significant difference or not. This aspect of QSI is discussed in previous studies (e.g., Epley & Schroeder, 2014; Sun et al., 2020; Venaglia & Lemay, 2017), and even Hobfoll (1989) and Ryff (1989) state of important

intimacy is for gain of resources and higher levels of PWB, respectively, so it really seems like a question that could need some studies to be focused on.

Considering the complexity this study had in exploring various differences between aspects related to technostress and QSI, it was also chosen to exclude a more private context side of QSI, focusing more on how technostress and PWB affected the QSI with participants' coworkers. It should also be interesting to also understand better these differences, looking for the way different technostress contexts affect their own QSI context.

Lastly, on a more general view of the study, considering its correlational nature, it could be very helpful more longitudinal and qualitative studies, in order to complement these results and better understand the possible causal relationship between the variables of the present models.

4.6. Final Considerations

Technology, psychological well-being, social interactions and personal traits are all inevitable aspects in people's life, being essential to better understand each one and the relationship between them in order to get what each one has to offer, while avoiding the very impactful downsides they might show if not properly worked on.

This study, with the objective to add some insights about the relationship between all these factors, has certainly contributed to the literature about how technostress really affects people's behavior, considering the findings about how PWB mediates this relationship, even though extraversion didn't show any significant relationship with the expected variables.

Future investigation and some contemporary practices or mentality should definitely take these findings in consideration when planning the next step in the theorical and practical world. Being in the organizational or the private context, people should pay attention to different aspects of technostress and how it will decrease their PWB levels and, consequently, negatively impact the QSI with other people.

Considering all that was talked about and investigated in this study, it may be important to also leave a personal note that could resonate with at least one person: Even if technology nowadays is involved in practically everything and we don't have a choice but to be part of it, it doesn't necessarily mean we have to base everything around it, we must go beyond the screens to try and feel everything that life and other people have to offer.

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Appendices

Section I – Method

Appendix A – Questionnaire

Informed Consent

Consentimento Informado

Olá, caro/a participante!

O meu nome é Afonso Fundão e encontro-me, enquanto orientando da Professora Patrícia Costa, a desenvolver a minha dissertação no âmbito do Mestrado em Psicologia Social e das Organizações no Iscte - Instituto Universitário de Lisboa.

O presente estudo tem como objetivo tentar compreender melhor a relação entre o stress causado por tecnologias e a qualidade das interações sociais que um indivíduo tem, não só em contexto organizacional, como nas suas relações pessoais. Com isto, existem apenas dois requisitos para colaborar neste estudo: **ter mais de 18 anos**, e **trabalhar há 6 meses ou mais**.

A sua participação no estudo, que será muito valorizada pois irá contribuir para o avanço do conhecimento neste domínio da ciência, consiste em responder da forma mais sincera que conseguir ao seguinte questionário. Não existem riscos significativos expectáveis associados à participação no estudo, e **não existem respostas certas ou erradas**.

A participação no estudo é estritamente voluntária: pode escolher livremente participar ou não participar. Se tiver escolhido participar, pode interromper a participação em qualquer momento sem ter de prestar qualquer justificação. Para além de voluntária, a participação é também **anónima** e **confidencial**. Os dados obtidos destinam-se apenas a tratamento estatístico de investigação e nenhuma resposta será analisada ou reportada individualmente. Em nenhum momento do estudo precisa de se identificar.

O seguinte questionário tem a duração média de 10 minutos.

Agradeço, desde já, a sua colaboração para este estudo. Qualquer dúvida ou interesse, poderá contactar-me a mim ou à Professora Patrícia, através de um email para acfos1@iscte-iul.pt ou Patricia_Costa@iscte-iul.pt, respetivamente.

Tem mais de 18 anos, **trabalha há 6 meses ou mais**, e **declara** ter compreendido as condições acima referidas e o objetivo do estudo, pelo que aceita neste participar?

- Sim
- Não

Organizational Context Technostress

Com base nas suas experiências em contexto de trabalho, indique em que medida concorda com cada afirmação (o termo "esta tecnologia" refere-se a, por exemplo, Excel, Zoom, ou o computador do trabalho)

	Discordo fortemente	Discordo parcialmente	Nem concordo nem discordo	Concordo parcialmente	Concordo fortemente
Esta tecnologia força-me a fazer mais trabalho do que aquilo que consigo lidar	○	○	○	○	○
Esta tecnologia força-me a trabalhar com prazos muito apertados	○	○	○	○	○
Sou forçado/a a mudar os meus hábitos de trabalho para me adaptar a novas tecnologias	○	○	○	○	○
Tenho maior quantidade de trabalho devido à elevada complexidade da tecnologia	○	○	○	○	○

	Discordo fortemente	Discordo parcialmente	Nem concordo nem discordo	Concordo parcialmente	concordo fortemente
Tenho de estar sempre disponível devido a esta tecnologia	○	○	○	○	○
Tenho de sacrificar tempo para conseguir acompanhar as novas tecnologias	○	○	○	○	○
Sinto a minha vida pessoal a ser invadida por esta tecnologia	○	○	○	○	○

	Discordo fortemente	Discordo parcialmente	Nem concordo nem discordo	Concordo parcialmente	Concordo fortemente
Não entendo o suficiente sobre esta tecnologia para lhe mexer de forma satisfatória	○	○	○	○	○
Preciso de bastante tempo para entender e usar novas tecnologias	○	○	○	○	○
Não consigo arranjar tempo suficiente para estudar e aperfeiçoar as minhas capacidades tecnológicas	○	○	○	○	○
Sinto que os meus colegas entendem melhor desta tecnologia do que eu	○	○	○	○	○
Frequentemente sinto que usar novas tecnologias é demasiado complicado para mim	○	○	○	○	○

	Discordo fortemente	Discordo parcialmente	Nem concordo nem discordo	Concordo parcialmente	Concordo fortemente
Sinto que a segurança do meu emprego é ameaçada devido a novas tecnologias	○	○	○	○	○
Tenho de atualizar constantemente as minhas capacidades tecnológicas para evitar ser substituído/a por outras pessoa	○	○	○	○	○
Sinto-me intimidado/a por colegas com capacidades tecnológicas mais atualizadas do que eu	○	○	○	○	○
Sinto que existe menos partilha de conhecimento tecnológico entre colegas devido ao medo de ser substituído/a.	○	○	○	○	○

	Discordo fortemente	Discordo parcialmente	Nem concordo nem discordo	Concordo parcialmente	Concordo fortemente
Existem sempre novos desenvolvimentos desta tecnologia	○	○	○	○	○
Existem mudanças constantes a nível de programas (software) desta tecnologia	○	○	○	○	○
Existem mudanças constantes a nível de dispositivos (hardware) desta tecnologia	○	○	○	○	○
Existem mudanças frequentes na rede (network) desta tecnologia	○	○	○	○	○

Quality of Social Interaction

Indique em que medida concorda com cada afirmação, pensando nas suas interações com os/as seus/suas colegas

	Discordo fortemente	Discordo parcialmente	Nem concordo nem discordo	Concordo parcialmente	Concordo fortemente
A minha relação com os/as meus/minhas colegas é tensa	○	○	○	○	○
Desfruto muito falar e trabalhar com os/as meus/minhas colegas	○	○	○	○	○
A possibilidade de conhecer os/as meus/minhas colegas é uma das melhores partes de trabalhar na minha equipa	○	○	○	○	○

Indique, de forma objetiva, como classificaria as interações entre si e os/as seus/suas colegas

	Nada	Pouco	Nem muito nem pouco	Muito	Bastante
O quão superficiais são as conversas com os/as seus/suas colegas?	○	○	○	○	○
Quanto é que considera ter partilhado sobre si mesmo/a com colegas de trabalho?	○	○	○	○	○
Quanto é que considera conhecer os/as seus/suas colegas?	○	○	○	○	○
Quanto é que considera gostar dos/das seus/suas colegas?	○	○	○	○	○

Psychological Well-being

Indique, com base na sua experiência pessoal, em que medida concorda com cada afirmação

	Discordo fortemente	Discordo parcialmente	Discordo um pouco	Nem discordo nem concordo	Concordo um pouco	Concordo parcialmente	Concordo fortemente
Gosto de maioria das partes da minha personalidade	○	○	○	○	○	○	○
Quando olho para a minha vida, sinto-me satisfeito/a pela forma como se tem desenvolvido até agora	○	○	○	○	○	○	○
Algumas pessoas não têm um rumo sua vida, mas não sou uma delas	○	○	○	○	○	○	○
As exigências do meu dia-a-dia deixam-me frequentemente em baixo	○	○	○	○	○	○	○
De muitas formas, sinto-me desapontado/a com as conquistas da minha vida	○	○	○	○	○	○	○
Manter relações próximas tem sido difícil e frustrante para mim	○	○	○	○	○	○	○
Vivo a minha vida um dia de cada vez e não penso muito sobre o futuro	○	○	○	○	○	○	○
De modo geral, sinto-me em controlo da situação em que vivo	○	○	○	○	○	○	○
Sou bom/boa a gerir as responsabilidades do meu dia-a-dia	○	○	○	○	○	○	○
Às vezes sinto que já fiz tudo o que há para fazer na vida	○	○	○	○	○	○	○
Para mim, a vida tem sido um processo contínuo de aprendizagem, mudança e crescimento	○	○	○	○	○	○	○
Eu acho que é importante ter novas experiências que desafiem a forma como penso sobre mim e o mundo	○	○	○	○	○	○	○
As pessoas descrevem-me como uma pessoa generosa, disposta a partilhar o meu tempo com outros	○	○	○	○	○	○	○
Desisti de tentar fazer grandes aperfeiçoamentos ou mudanças na minha vida há bastante tempo	○	○	○	○	○	○	○
Tenho tendência a ser influenciado/a por pessoas com opiniões fortes	○	○	○	○	○	○	○
Não experienciei muitas relações calorosas e de confiança com outras pessoas	○	○	○	○	○	○	○
Tenho confiança nas minhas opiniões, mesmo quando são diferentes da maioria das pessoas	○	○	○	○	○	○	○
Julgo-me com base naquilo que acho importante, não pelos valores que os outros consideram importantes	○	○	○	○	○	○	○

Attitude Towards the Color Blue

Indique, utilizando a escala abaixo, em que medida concorda com as seguintes afirmações

	Discordo fortemente	Discordo	Nem concordo nem discordo	Concordo	Concordo fortemente
Azul é uma cor linda	○	○	○	○	○
Azul é uma cor bela	○	○	○	○	○
Azul é uma cor agradável	○	○	○	○	○
A cor azul é maravilhosa	○	○	○	○	○
Azul é uma cor boa	○	○	○	○	○
Eu acho a cor azul bonita	○	○	○	○	○
Gosto da cor azul	○	○	○	○	○

Extraversion

Indique em que medida concorda com cada afirmação, pensando nas suas experiências

	Nunca	Algumas vezes	Cerca de metade das vezes	A maioria das vezes	Sempre
Faço amigos/as com facilidade	○	○	○	○	○
Sinto-me bem quando estou rodeado/a de pessoas	○	○	○	○	○
Gosto de conhecer pessoas novas	○	○	○	○	○
Integro-me facilmente em qualquer grupo	○	○	○	○	○

Private Context Technostress

Com base nas suas experiências em contexto pessoal, indique em que medida concorda com cada afirmação (o termo "esta tecnologia" refere-se a todas as tecnologias utilizadas num dia típico, como por exemplo, um telemóvel ou computador novo, apps, acessórios e redes sociais)

	Discordo fortemente	Discordo parcialmente	Nem concordo nem discordo	Concordo parcialmente	Concordo fortemente
Esta tecnologia força-me a fazer mais atividades do que aquilo que consigo lidar	○	○	○	○	○
Esta tecnologia força-me a viver em períodos de tempo muito apressados	○	○	○	○	○
Sou forçado/a a mudar hábitos pessoais para me adaptar a novas tecnologias	○	○	○	○	○
Tenho maior quantidade de preocupações devido à elevada complexidade da tecnologia	○	○	○	○	○

	Discordo fortemente	Discordo parcialmente	Nem concordo nem discordo	Concordo parcialmente	concordo fortemente
Tenho de estar sempre disponível devido a esta tecnologia	○	○	○	○	○
Tenho de sacrificar tempo para conseguir acompanhar as novas tecnologias	○	○	○	○	○
Sinto a minha vida pessoal a ser invadida por esta tecnologia	○	○	○	○	○

	Discordo fortemente	Discordo parcialmente	Nem concordo nem discordo	Concordo parcialmente	Concordo fortemente
Não entendo o suficiente sobre esta tecnologia para lhe mexer de forma satisfatória	○	○	○	○	○
Preciso de bastante tempo para entender e usar novas tecnologias	○	○	○	○	○
Não consigo arranjar tempo suficiente para estudar e aperfeiçoar as minhas capacidades tecnológicas	○	○	○	○	○
Sinto que as outras pessoas entendem melhor desta tecnologia do que eu	○	○	○	○	○
Frequentemente sinto que usar novas tecnologias é demasiado complicado para mim	○	○	○	○	○

	Discordo fortemente	Discordo parcialmente	Nem concordo nem discordo	Concordo parcialmente	Concordo fortemente
Existe sempre novos desenvolvimentos desta tecnologia	○	○	○	○	○
Existem mudanças constantes a nível de programas (software) desta tecnologia	○	○	○	○	○
Existem mudança constantes a nível de dispositivos (hardware) desta tecnologia	○	○	○	○	○
Existem mudanças frequentes nesta tecnologia	○	○	○	○	○

Define Mission

	Discordo fortemente	Discordo parcialmente	Nem concordo nem discordo	Concordo parcialmente	Concordo fortemente
Assegura que a equipa tem uma direção clara	○	○	○	○	○
Reforça a importância de ter uma sensação de missão coletiva	○	○	○	○	○
Desenvolve e articula uma missão de equipa clara	○	○	○	○	○
Assegura que a equipa tem uma compreensão clara do seu próprio propósito	○	○	○	○	○
Ajuda a fornecer uma visão clara de onde a equipa se encaminha	○	○	○	○	○

Sociodemographic

Indique o seu género

- Feminino
- Masculino
- Prefiro não responder
- Outro

Último nível de educação completo

- Ensino básico (9º ano ou inferior)
- Ensino Secundário (12º ano)
- Licenciatura
- Mestrado
- Doutoramento

Qual é o seu horário de trabalho?

- Full-time (35h-40h semanais)
- Part-time
- Outro

Em que regime de trabalho se encontra atualmente?

- Presencial
- Regime híbrido (teletrabalho rotativo)
- 100% teletrabalho

Indique a sua idade

Em que área/setor trabalha?

Appendix B – Sample Characterization

Table B.1

Sample Characterization

Variable	*n*	%	*M* (*SD*)	Min-Max
Gender				
Female	160	72.4		
Male	59	26.7		
Preferred not to answer	2	0.9		
Age			44.40 (12.70)	21-82
Level of education				
9th grade	5	2.3		
12h grade	67	30.3		
Bachelor's degree	99	44.8		
Master's degree	42	19		
Doctoral degree	7	3.2		
Preferred not to answer	1	0.4		
Schedule				
Full-time (35h-40h)	181	81.9		
Part-time	20	9.1		
Without established schedule	18	8.1		
Preferred not to answer	2	0.9		
Work Regime				
Face-to-face	135	61.1		
Hybrid	67	30.3		
Online	16	7.2		
Preferred not to answer	3	1.4		
Total	221	100		

Table B.2

Sample Categorization, by Work Sectors

Sector	*n*	%
Commercial	32	14.5
Educational	27	12.2
Health	24	10.9
Others	24	10.9
Administrative	20	9.0
Financial and Accounting	19	8.6
Information Technologies	18	8.1
Tourism	18	8.1
Human Resources	11	5.0
Engineering	7	3.2
Marketing	6	2.7
Communication	5	2.3
Industrial	5	2.3
Legal	5	2.3
Total	221	100

Section II - Results

Appendix C – Mediation Model Related Tables

Table C.1

Age's Influence on QSI Scales

Context	Model	Coeff.	95% LLCI	95% ULCI
Organizational	Technostress → STR	-.003	-.012	.005
	Techno-overload → STR	-.004	-.013	.004
	Techno-invasion → STR	-.004	-.013	.004
	Techno-complexity → STR	-.004	-.013	.004
	Techno-insecurity → STR	-.004	-.012	.005
	Techno-uncertainty → STR	-.005	-.014	.003
	Technostress → QI	**.008**	**.001**	**.015**
	Techno-overload → QI	**.007**	**.000**	**.015**
	Techno-invasion → QI	**.007**	**.000**	**.014**
	Techno-complexity → QI	.007	-.001	.014
	Techno-insecurity → QI	**.008**	**.001**	**.015**
	Techno-uncertainty → QI	.006	-.001	.013
Private	Technostress → STR	-.004	-.012	.004
	Techno-overload → STR	-.004	-.012	.004
	Techno-invasion → STR	-.005	-.013	.003
	Techno-complexity → STR	-.006	-.014	.003
	Techno-uncertainty → STR	-.005	-.014	.003
	Technostress → QI	**.007**	**.000**	**.014**
	Techno-overload → QI	**.007**	**.000**	**.014**
	Techno-invasion → QI	.006	-.001	.013
	Techno-complexity → QI	**.008**	**.000**	**.015**
	Techno-uncertainty → QI	.006	-.001	.014

Notes. N = Between 188 and 196. Age used as control variable. CI = 95% (bootstrapping). Data in bold are the significant interactions.

Table C.2

Age's Influence on PWB

Context	Model	Coeff.	95% LLCI	95% ULCI
Organizational	Technostress → PWB	.039	-.096	.173
	Techno-overload → PWB	-.017	-.153	.119
	Techno-invasion → PWB	-.018	-.156	.119
	Techno-complexity → PWB	.011	-.125	.148
	Techno-insecurity → PWB	.009	-.123	.140
	Techno-uncertainty → PWB	-.034	-.182	.113
	Technostress → PWB	.039	-.097	.175
	Techno-overload → PWB	-.021	-.158	.117
	Techno-invasion → PWB	-.018	-.157	.120
	Techno-complexity → PWB	.012	-.126	.149
	Techno-insecurity → PWB	.006	-.126	.139
	Techno-uncertainty → PWB	-.035	-.183	.112
Private	Technostress → PWB	.011	-.126	.148
	Techno-overload → PWB	.009	-.124	.142
	Techno-invasion → PWB	-.044	-.183	.094
	Techno-complexity → PWB	.046	-.097	.189
	Techno-uncertainty → PWB	-.031	-.175	.113
	Technostress → PWB	.014	-.123	.151
	Techno-overload → PWB	.010	-.123	.144
	Techno-invasion → PWB	-.043	-.182	.095
	Techno-complexity → PWB	.050	-.093	.193
	Techno-uncertainty → PWB	-.030	-.173	.113

Notes. N = Between 188 and 196. Age used as control variable. CI = 95% (bootstrapping).

Appendix D – SPSS Outputs

Mediation model - organizational technostress and STR

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : Satisf_w
    X  : Technost
    M  : PWB

Covariates:
 Age

Sample
Size:  194

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,393       ,155    137,115     17,486      2,000    191,000       ,000

Model
              coeff         se          t          p       LLCI       ULCI
constant    114,648      3,973     28,860       ,000    106,813    122,484
Technost     -6,577      1,121     -5,869       ,000     -8,787     -4,367
Age            ,039       ,068       ,565       ,573      -,096       ,173

**************************************************************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,376       ,141       ,528     10,408      3,000    190,000       ,000

Model
              coeff         se          t          p       LLCI       ULCI
constant      2,833       ,571      4,963       ,000      1,707      3,959
Technost      -,126       ,076     -1,672       ,096      -,275       ,023
PWB            ,018       ,004      4,068       ,000       ,009       ,027
Age           -,003       ,004      -,818       ,414      -,012       ,005

************************** TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,258       ,066       ,571      6,786      2,000    191,000       ,001

Model
              coeff         se          t          p       LLCI       ULCI
constant      4,928       ,256     19,218       ,000      4,422      5,434
Technost      -,247       ,072     -3,408       ,001      -,389      -,104
Age           -,003       ,004      -,627       ,531      -,011       ,006


************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,247       ,072     -3,408       ,001      -,389      -,104

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,126       ,076     -1,672       ,096      -,275       ,023
```

```
Indirect effect(s) of X on Y:
        Effect     BootSE   BootLLCI   BootULCI
PWB      -,120       ,037      -,203      -,058

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Mediation model - organizational techno-overload and STR

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : Satisf_w
    X  : Techno_o
    M  : PWB

Covariates:
 Age

Sample
Size:  191

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,330       ,109    138,769     11,458      2,000    188,000       ,000

Model
             coeff         se          t          p       LLCI       ULCI
constant    108,657      3,522     30,848       ,000    101,709    115,605
Techno_o     -3,828       ,820     -4,669       ,000     -5,445     -2,211
Age           -,017       ,069      -,248       ,804      -,153       ,119

**************************************************************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,375       ,140       ,536     10,171      3,000    187,000       ,000

Model
             coeff         se          t          p       LLCI       ULCI
constant      2,397       ,539      4,447       ,000      1,334      3,461
Techno_o      -,056       ,054     -1,046       ,297      -,162       ,050
PWB            ,021       ,005      4,591       ,000       ,012       ,030
Age           -,004       ,004      -,964       ,336      -,013       ,004

************************ TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
```

```
          R       R-sq        MSE          F        df1        df2          p
       ,208       ,043       ,593      4,262      2,000    188,000       ,015

Model
              coeff         se          t          p       LLCI       ULCI
constant      4,659       ,230     20,226       ,000      4,204      5,113
Techno_o      -,136       ,054     -2,536       ,012      -,242      -,030
Age           -,004       ,005      -,995       ,321      -,013       ,004


************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,136       ,054     -2,536       ,012      -,242      -,030

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,056       ,054     -1,046       ,297      -,162       ,050

Indirect effect(s) of X on Y:
        Effect     BootSE   BootLLCI   BootULCI
PWB      -,080       ,025      -,134      -,037

*********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Mediation model - organizational techno-invasion and STR

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : Satisf_w
    X  : Techno_i
    M  : PWB

Covariates:
 Age

Sample
Size:  193

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,287       ,082    147,858      8,504      2,000    190,000       ,000

Model
              coeff         se          t          p       LLCI       ULCI
constant    107,337      3,698     29,023       ,000    100,042    114,632
Techno_i     -3,199       ,787     -4,066       ,000     -4,751     -1,647
Age           -,018       ,070      -,261       ,794      -,156       ,119

**************************************************************************
```

```
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,371       ,138       ,533     10,078      3,000    189,000       ,000

Model
             coeff         se          t          p       LLCI       ULCI
constant      2,592       ,518      5,009       ,000      1,571      3,613
Techno_i      -,071       ,049     -1,443       ,151      -,168       ,026
PWB            ,020       ,004      4,488       ,000       ,011       ,028
Age           -,004       ,004     -1,060       ,291      -,013       ,004

************************ TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,215       ,046       ,587      4,584      2,000    190,000       ,011

Model
             coeff         se          t          p       LLCI       ULCI
constant      4,690       ,233     20,135       ,000      4,231      5,149
Techno_i      -,134       ,050     -2,696       ,008      -,231      -,036
Age           -,005       ,004     -1,092       ,276      -,013       ,004


************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,134       ,050     -2,696       ,008      -,231      -,036

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,071       ,049     -1,443       ,151      -,168       ,026

Indirect effect(s) of X on Y:
        Effect     BootSE   BootLLCI   BootULCI
PWB      -,063       ,022      -,111      -,026

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Mediation model - organizational techno-complexity and STR

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : Satisf_w
    X  : Techno_c
    M  : PWB

Covariates:
 Age
```

```
Sample
Size:  191

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,336       ,113    138,867     11,998      2,000    188,000       ,000

Model
              coeff         se          t          p       LLCI       ULCI
constant    107,408      3,398     31,613       ,000    100,705    114,110
Techno_c     -4,130       ,859     -4,805       ,000     -5,825     -2,435
Age            ,011       ,069       ,163       ,871      -,125       ,148

**************************************************************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,369       ,136       ,536      9,824      3,000    187,000       ,000

Model
             coeff         se          t          p       LLCI       ULCI
constant     2,300       ,530      4,335       ,000      1,253      3,346
Techno_c     -,034       ,057      -,601       ,548      -,146       ,078
PWB            ,021       ,005      4,686       ,000       ,012       ,030
Age          -,004       ,004     -1,021       ,309      -,013       ,004

************************* TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,186       ,035       ,596      3,379      2,000    188,000       ,036

Model
             coeff         se          t          p       LLCI       ULCI
constant     4,580       ,223     20,583       ,000      4,141      5,019
Techno_c     -,122       ,056     -2,162       ,032      -,233      -,011
Age          -,004       ,005      -,916       ,361      -,013       ,005


************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,122       ,056     -2,162       ,032      -,233      -,011

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,034       ,057      -,601       ,548      -,146       ,078

Indirect effect(s) of X on Y:
        Effect     BootSE   BootLLCI   BootULCI
PWB      -,088       ,027      -,147      -,043

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Mediation model - organizational techno-insecurity and STR

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : Satisf_w
    X  : Techno_i
    M  : PWB

Covariates:
 Age

Sample
Size:  193

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,419       ,175    134,313     20,192      2,000    190,000       ,000

Model
              coeff         se          t          p       LLCI       ULCI
constant    108,956      3,375     32,287       ,000    102,299    115,613
Techno_i     -4,689       ,742     -6,316       ,000     -6,153     -3,224
Age            ,009       ,067       ,134       ,894      -,123       ,140

**************************************************************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,398       ,159       ,520     11,887      3,000    189,000       ,000

Model
              coeff         se          t          p       LLCI       ULCI
constant      3,010       ,535      5,629       ,000      1,955      4,065
Techno_i      -,133       ,051     -2,622       ,009      -,233      -,033
PWB            ,016       ,005      3,604       ,000       ,007       ,025
Age           -,004       ,004      -,878       ,381      -,012       ,005

************************** TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,318       ,101       ,553     10,664      2,000    190,000       ,000

Model
              coeff         se          t          p       LLCI       ULCI
constant      4,782       ,216     22,090       ,000      4,355      5,209
Techno_i      -,209       ,048     -4,399       ,000      -,303      -,116
Age           -,003       ,004      -,817       ,415      -,012       ,005


************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,209       ,048     -4,399       ,000      -,303      -,116

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,133       ,051     -2,622       ,009      -,233      -,033
```

```
Indirect effect(s) of X on Y:
        Effect     BootSE   BootLLCI   BootULCI
PWB      -,076       ,025      -,129      -,034

************************ ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Mediation model - organizational techno-uncertainty and STR

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : Satisf_w
    X  : Techno_u
    M  : PWB

Covariates:
 Age

Sample
Size:  192

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,075       ,006    162,585       ,535      2,000    189,000       ,586

Model
             coeff         se          t          p       LLCI       ULCI
constant    102,204      4,608     22,181       ,000     93,115    111,293
Techno_u      -,812       ,986      -,824       ,411     -2,757      1,133
Age           -,034       ,075      -,462       ,644      -,182       ,113

**************************************************************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,356       ,127       ,538      9,076      3,000    188,000       ,000

Model
             coeff         se          t          p       LLCI       ULCI
constant      2,238       ,503      4,449       ,000      1,246      3,230
Techno_u       ,009       ,057       ,151       ,880      -,103       ,121
PWB            ,021       ,004      5,023       ,000       ,013       ,029
Age           -,005       ,004     -1,183       ,238      -,014       ,003

************************ TOTAL EFFECT MODEL ************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
```

```
          R       R-sq        MSE          F        df1        df2          p
       ,096       ,009       ,607       ,884      2,000    189,000       ,415

Model
              coeff         se          t          p       LLCI       ULCI
constant      4,386       ,281     15,582       ,000      3,831      4,941
Techno_u      -,008       ,060      -,141       ,888      -,127       ,110
Age           -,006       ,005     -1,273       ,205      -,015       ,003


************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,008       ,060      -,141       ,888      -,127       ,110

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
       ,009       ,057       ,151       ,880      -,103       ,121

Indirect effect(s) of X on Y:
        Effect     BootSE   BootLLCI   BootULCI
PWB      -,017       ,021      -,063       ,021

*********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Mediation model - organizational technostress and QI

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : Interact
    X  : Technost
    M  : PWB

Covariates:
 Age

Sample
Size:  196

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,386       ,149    140,022     16,879      2,000    193,000       ,000

Model
              coeff         se          t          p       LLCI       ULCI
constant    114,302      3,989     28,653       ,000    106,434    122,170
Technost     -6,491      1,127     -5,762       ,000     -8,713     -4,269
Age            ,039       ,069       ,565       ,573      -,097       ,175

**************************************************************************
```

```
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,348       ,121       ,384      8,843      3,000    192,000       ,000

Model
             coeff         se          t          p       LLCI       ULCI
constant      2,283       ,479      4,767       ,000      1,339      3,228
Technost      -,166       ,064     -2,593       ,010      -,292      -,040
PWB            ,011       ,004      2,858       ,005       ,003       ,018
Age            ,008       ,004      2,294       ,023       ,001       ,015

************************ TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,290       ,084       ,399      8,852      2,000    193,000       ,000

Model
             coeff         se          t          p       LLCI       ULCI
constant      3,515       ,213     16,517       ,000      3,095      3,935
Technost      -,236       ,060     -3,921       ,000      -,354      -,117
Age            ,009       ,004      2,368       ,019       ,001       ,016


************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,236       ,060     -3,921       ,000      -,354      -,117

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,166       ,064     -2,593       ,010      -,292      -,040

Indirect effect(s) of X on Y:
        Effect     BootSE   BootLLCI   BootULCI
PWB      -,070       ,027      -,129      -,019

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Mediation model - organizational techno-overload and QI

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : Interact
    X  : Techno_o
    M  : PWB

Covariates:
 Age
```

```
Sample
Size:  193

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,311       ,096    142,902     10,144      2,000    190,000       ,000

Model
              coeff         se          t          p       LLCI       ULCI
constant    108,146      3,559     30,383       ,000    101,125    115,167
Techno_o     -3,621       ,828     -4,375       ,000     -5,253     -1,988
Age           -,021       ,070      -,296       ,767      -,158       ,117

**************************************************************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,335       ,112       ,387      7,980      3,000    189,000       ,000

Model
              coeff         se          t          p       LLCI       ULCI
constant      1,767       ,448      3,941       ,000       ,882      2,651
Techno_o      -,077       ,045     -1,713       ,088      -,166       ,012
PWB            ,014       ,004      3,618       ,000       ,006       ,021
Age            ,007       ,004      2,041       ,043       ,000       ,015

************************ TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,226       ,051       ,411      5,102      2,000    190,000       ,007

Model
              coeff         se          t          p       LLCI       ULCI
constant      3,243       ,191     16,982       ,000      2,867      3,620
Techno_o      -,127       ,044     -2,856       ,005      -,214      -,039
Age            ,007       ,004      1,904       ,058       ,000       ,015


************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,127       ,044     -2,856       ,005      -,214      -,039

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,077       ,045     -1,713       ,088      -,166       ,012

Indirect effect(s) of X on Y:
        Effect     BootSE   BootLLCI   BootULCI
PWB      -,049       ,019      -,090      -,018

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

WARNING: Variables names longer than eight characters can produce incorrect output
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variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Mediation model - organizational techno-invasion and QI

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : Interact
    X  : Techno_i
    M  : PWB

Covariates:
 Age

Sample
Size:  195

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,278       ,077    150,754      8,042      2,000    192,000       ,000

Model
             coeff         se          t          p       LLCI       ULCI
constant   107,010      3,712     28,826       ,000     99,688    114,332
Techno_i    -3,117       ,790     -3,947       ,000     -4,674     -1,559
Age          -,018       ,070      -,261       ,794      -,157       ,120

**************************************************************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,324       ,105       ,394      7,448      3,000    191,000       ,000

Model
             coeff         se          t          p       LLCI       ULCI
constant     1,862       ,438      4,252       ,000       ,998      2,725
Techno_i     -,071       ,042     -1,687       ,093      -,153       ,012
PWB           ,013       ,004      3,519       ,001       ,006       ,020
Age           ,007       ,004      1,903       ,059       ,000       ,014

************************ TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,216       ,047       ,417      4,701      2,000    192,000       ,010

Model
             coeff         se          t          p       LLCI       ULCI
constant     3,250       ,195     16,650       ,000      2,865      3,636
Techno_i     -,111       ,042     -2,678       ,008      -,193      -,029
Age           ,007       ,004      1,785       ,076      -,001       ,014


************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,111       ,042     -2,678       ,008      -,193      -,029

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,071       ,042     -1,687       ,093      -,153       ,012
```

```
Indirect effect(s) of X on Y:
        Effect     BootSE   BootLLCI   BootULCI
PWB      -,040       ,015      -,074      -,015

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

WARNING: Variables names longer than eight characters can produce incorrect output
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variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Mediation model - organizational techno-complexity and QI

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : Interact
    X  : Techno_c
    M  : PWB

Covariates:
 Age

Sample
Size:  193

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,337       ,114    140,968     12,166      2,000    190,000       ,000

Model
             coeff         se          t          p       LLCI       ULCI
constant    107,417      3,414     31,461       ,000    100,682    114,152
Techno_c     -4,182       ,865     -4,835       ,000     -5,888     -2,476
Age            ,012       ,069       ,166       ,868      -,126       ,149

**************************************************************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,303       ,092       ,383      6,365      3,000    189,000       ,000

Model
             coeff         se          t          p       LLCI       ULCI
constant      1,748       ,444      3,941       ,000       ,873      2,623
Techno_c      -,042       ,048      -,886       ,377      -,137       ,052
PWB            ,013       ,004      3,518       ,001       ,006       ,021
Age            ,007       ,004      1,833       ,068      -,001       ,014

************************ TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
```

```
      ,180       ,032       ,406      3,170      2,000    190,000       ,044

Model
             coeff         se          t          p       LLCI       ULCI
constant      3,177       ,183     17,337       ,000      2,815      3,538
Techno_c      -,098       ,046     -2,111       ,036      -,190      -,006
Age            ,007       ,004      1,822       ,070      -,001       ,014


************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,098       ,046     -2,111       ,036      -,190      -,006

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,042       ,048      -,886       ,377      -,137       ,052

Indirect effect(s) of X on Y:
        Effect     BootSE   BootLLCI   BootULCI
PWB      -,056       ,021      -,102      -,019

*********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

WARNING: Variables names longer than eight characters can produce incorrect output
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variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Mediation model - organizational techno-insecurity and QI

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : Interact
    X  : Techno_i
    M  : PWB

Covariates:
 Age

Sample
Size:  194

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,418       ,175    136,945     20,249      2,000    191,000       ,000

Model
             coeff         se          t          p       LLCI       ULCI
constant    109,057      3,407     32,007       ,000    102,336    115,778
Techno_i     -4,735       ,749     -6,320       ,000     -6,213     -3,257
Age            ,006       ,067       ,094       ,925      -,126       ,139

**************************************************************************
OUTCOME VARIABLE:
```

```
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,387       ,150       ,370     11,147      3,000    190,000       ,000

Model
             coeff         se          t          p       LLCI       ULCI
constant      2,440       ,447      5,458       ,000      1,558      3,322
Techno_i      -,158       ,043     -3,676       ,000      -,242      -,073
PWB            ,009       ,004      2,275       ,024       ,001       ,016
Age            ,008       ,004      2,199       ,029       ,001       ,015

************************* TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,356       ,126       ,379     13,830      2,000    191,000       ,000

Model
             coeff         se          t          p       LLCI       ULCI
constant      3,374       ,179     18,834       ,000      3,020      3,727
Techno_i      -,198       ,039     -5,028       ,000      -,276      -,120
Age            ,008       ,004      2,191       ,030       ,001       ,015


************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,198       ,039     -5,028       ,000      -,276      -,120

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,158       ,043     -3,676       ,000      -,242      -,073

Indirect effect(s) of X on Y:
        Effect     BootSE   BootLLCI   BootULCI
PWB      -,041       ,018      -,076      -,004

*********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

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variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Mediation model - organizational techno-uncertainty and QI

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : Interact
    X  : Techno_u
    M  : PWB

Covariates:
 Age
```

```
Sample
Size:  194

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,078       ,006    164,781       ,585      2,000    191,000       ,558

Model
             coeff         se          t          p       LLCI       ULCI
constant   102,293      4,622     22,133       ,000     93,177    111,409
Techno_u     -,857       ,991      -,865       ,388     -2,811      1,097
Age          -,035       ,075      -,472       ,637      -,183       ,112

**************************************************************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,299       ,090       ,397      6,227      3,000    190,000       ,000

Model
             coeff         se          t          p       LLCI       ULCI
constant     1,646       ,428      3,843       ,000       ,801      2,491
Techno_u     -,022       ,049      -,459       ,647      -,118       ,074
PWB           ,014       ,004      4,015       ,000       ,007       ,021
Age           ,006       ,004      1,680       ,095      -,001       ,013

************************ TOTAL EFFECT MODEL ***************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,111       ,012       ,429      1,188      2,000    191,000       ,307

Model
             coeff         se          t          p       LLCI       ULCI
constant     3,105       ,236     13,174       ,000      2,640      3,570
Techno_u     -,035       ,051      -,684       ,495      -,134       ,065
Age           ,006       ,004      1,487       ,139      -,002       ,013


************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,035       ,051      -,684       ,495      -,134       ,065

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,022       ,049      -,459       ,647      -,118       ,074

Indirect effect(s) of X on Y:
        Effect     BootSE   BootLLCI   BootULCI
PWB      -,012       ,014      -,042       ,013

*********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

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variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Mediation model - private technostress and STR

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : Satisf_w
    X  : Technost
    M  : PWB

Covariates:
 Age

Sample
Size:  194

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,338       ,114    143,672     12,329      2,000    191,000       ,000

Model
              coeff         se          t          p       LLCI       ULCI
constant    113,857      4,244     26,826       ,000    105,485    122,229
Technost     -5,533      1,126     -4,915       ,000     -7,753     -3,313
Age            ,011       ,069       ,159       ,874      -,126       ,148

**************************************************************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,371       ,137       ,531     10,080      3,000    190,000       ,000

Model
              coeff         se          t          p       LLCI       ULCI
constant      2,717       ,563      4,823       ,000      1,606      3,828
Technost      -,101       ,073     -1,393       ,165      -,244       ,042
PWB            ,019       ,004      4,356       ,000       ,010       ,028
Age           -,004       ,004      -,953       ,342      -,012       ,004

************************** TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,226       ,051       ,581      5,150      2,000    191,000       ,007

Model
              coeff         se          t          p       LLCI       ULCI
constant      4,897       ,270     18,152       ,000      4,365      5,430
Technost      -,207       ,072     -2,894       ,004      -,348      -,066
Age           -,004       ,004      -,863       ,389      -,012       ,005


************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,207       ,072     -2,894       ,004      -,348      -,066

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,101       ,073     -1,393       ,165      -,244       ,042

Indirect effect(s) of X on Y:
```

```
        Effect     BootSE   BootLLCI   BootULCI
PWB      -,106       ,032      -,177      -,050

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

WARNING: Variables names longer than eight characters can produce incorrect output
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variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Mediation model - private techno-overload and STR

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : Satisf_w
    X  : Techno_o
    M  : PWB

Covariates:
 Age

Sample
Size:  194

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,396       ,157    136,723     17,810      2,000    191,000       ,000

Model
             coeff         se          t          p       LLCI       ULCI
constant   109,906      3,501     31,391       ,000    103,000    116,812
Techno_o    -4,709       ,795     -5,924       ,000     -6,277     -3,141
Age            ,009       ,067       ,137       ,891      -,124       ,142

**************************************************************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,378       ,143       ,527     10,574      3,000    190,000       ,000

Model
             coeff         se          t          p       LLCI       ULCI
constant     2,780       ,540      5,152       ,000      1,715      3,844
Techno_o     -,097       ,054     -1,798       ,074      -,202       ,009
PWB           ,018       ,004      4,012       ,000       ,009       ,027
Age          -,004       ,004      -,951       ,343      -,012       ,004

************************ TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,265       ,070       ,569      7,242      2,000    191,000       ,001
```

```
Model
              coeff         se          t          p       LLCI       ULCI
constant      4,761       ,226     21,082       ,000      4,315      5,206
Techno_o      -,181       ,051     -3,538       ,001      -,283      -,080
Age           -,004       ,004      -,877       ,382      -,012       ,005


************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,181       ,051     -3,538       ,001      -,283      -,080

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,097       ,054     -1,798       ,074      -,202       ,009

Indirect effect(s) of X on Y:
        Effect     BootSE   BootLLCI   BootULCI
PWB      -,085       ,026      -,141      -,041

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

WARNING: Variables names longer than eight characters can produce incorrect output
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variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Mediation model - private techno-invasion and STR

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : Satisf_w
    X  : Techno_i
    M  : PWB

Covariates:
 Age

Sample
Size:  191

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,267       ,071    151,403      7,201      2,000    188,000       ,001

Model
              coeff         se          t          p       LLCI       ULCI
constant    107,663      3,844     28,011       ,000    100,081    115,245
Techno_i     -2,815       ,754     -3,733       ,000     -4,302     -1,327
Age           -,044       ,070      -,628       ,531      -,183       ,094

**************************************************************************
OUTCOME VARIABLE:
 Satisf_w
```

```
Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,395       ,156       ,518     11,535      3,000    187,000       ,000

Model
             coeff         se          t          p       LLCI       ULCI
constant     2,641       ,511      5,166       ,000      1,632      3,649
Techno_i     -,090       ,046     -1,977       ,050      -,180       ,000
PWB           ,020       ,004      4,649       ,000       ,011       ,028
Age          -,005       ,004     -1,152       ,251      -,013       ,003

************************** TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,242       ,059       ,574      5,854      2,000    188,000       ,003

Model
             coeff         se          t          p       LLCI       ULCI
constant     4,775       ,237     20,170       ,000      4,308      5,243
Techno_i     -,146       ,046     -3,147       ,002      -,238      -,055
Age          -,006       ,004     -1,297       ,196      -,014       ,003


************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,146       ,046     -3,147       ,002      -,238      -,055

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,090       ,046     -1,977       ,050      -,180       ,000

Indirect effect(s) of X on Y:
        Effect     BootSE   BootLLCI   BootULCI
PWB      -,056       ,020      -,099      -,022

************************ ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

WARNING: Variables names longer than eight characters can produce incorrect output
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variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Mediation model - private techno-complexity and STR

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : Satisf_w
    X  : Techno_c
    M  : PWB

Covariates:
 Age

Sample
```

```
Size:  189

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,333       ,111    145,531     11,627      2,000    186,000       ,000

Model
             coeff         se          t          p       LLCI       ULCI
constant    106,099      3,434     30,895       ,000     99,324    112,874
Techno_c     -4,269       ,896     -4,761       ,000     -6,037     -2,500
Age            ,046       ,072       ,637       ,525      -,097       ,189

**************************************************************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,369       ,136       ,515      9,695      3,000    185,000       ,000

Model
             coeff         se          t          p       LLCI       ULCI
constant      2,509       ,506      4,958       ,000      1,511      3,507
Techno_c      -,036       ,057      -,640       ,523      -,148       ,075
PWB            ,020       ,004      4,552       ,000       ,011       ,028
Age           -,006       ,004     -1,279       ,203      -,014       ,003

************************ TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,198       ,039       ,570      3,780      2,000    186,000       ,025

Model
             coeff         se          t          p       LLCI       ULCI
constant      4,617       ,215     21,480       ,000      4,193      5,041
Techno_c      -,121       ,056     -2,156       ,032      -,232      -,010
Age           -,005       ,005     -1,015       ,311      -,014       ,004


************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,121       ,056     -2,156       ,032      -,232      -,010

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,036       ,057      -,640       ,523      -,148       ,075

Indirect effect(s) of X on Y:
        Effect     BootSE   BootLLCI   BootULCI
PWB      -,085       ,026      -,141      -,040

*********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Mediation model - private techno-uncertainty and STR

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : Satisf_w
    X  : Techno_u
    M  : PWB

Covariates:
 Age

Sample
Size:  188

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,031       ,001    160,975       ,092      2,000    185,000       ,912

Model
              coeff         se          t          p       LLCI       ULCI
constant     99,555      5,363     18,562       ,000     88,974    110,136
Techno_u      -,044      1,020      -,043       ,966     -2,057      1,969
Age           -,031       ,073      -,426       ,671      -,175       ,113

**************************************************************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,354       ,125       ,546      8,759      3,000    184,000       ,000

Model
              coeff         se          t          p       LLCI       ULCI
constant      2,229       ,529      4,217       ,000      1,186      3,272
Techno_u       ,008       ,059       ,133       ,895       -,109       ,125
PWB            ,021       ,004      4,940       ,000       ,013       ,030
Age           -,005       ,004     -1,209       ,228      -,014       ,003

************************* TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,094       ,009       ,615       ,830      2,000    185,000       ,438

Model
              coeff         se          t          p       LLCI       ULCI
constant      4,335       ,332     13,075       ,000      3,681      4,989
Techno_u       ,007       ,063       ,110       ,912       -,117       ,131
Age           -,006       ,005     -1,285       ,200      -,015       ,003


************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
       ,007       ,063       ,110       ,912      -,117       ,131

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
       ,008       ,059       ,133       ,895      -,109       ,125

Indirect effect(s) of X on Y:
```

```
        Effect     BootSE   BootLLCI   BootULCI
PWB      -,001       ,018      -,035       ,039

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Mediation model - private technostress and QI

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : Interact
    X  : Technost
    M  : PWB

Covariates:
 Age

Sample
Size:  196

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,345       ,119    144,950     13,024      2,000    193,000       ,000

Model
              coeff         se          t          p       LLCI       ULCI
constant    114,086      4,234     26,942       ,000    105,735    122,438
Technost     -5,669      1,122     -5,051       ,000     -7,883     -3,455
Age            ,014       ,069       ,195       ,846      -,123       ,151

**************************************************************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,327       ,107       ,391      7,655      3,000    192,000       ,000

Model
              coeff         se          t          p       LLCI       ULCI
constant      2,069       ,480      4,313       ,000      1,123      3,015
Technost      -,116       ,062     -1,867       ,063      -,238       ,007
PWB            ,012       ,004      3,249       ,001       ,005       ,020
Age            ,007       ,004      2,046       ,042       ,000       ,014

************************ TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,240       ,058       ,410      5,912      2,000    193,000       ,003
```

```
Model
              coeff         se          t          p       LLCI       ULCI
constant      3,454       ,225     15,336       ,000      3,009      3,898
Technost      -,185       ,060     -3,092       ,002      -,302      -,067
Age            ,008       ,004      2,042       ,043       ,000       ,015


************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,185       ,060     -3,092       ,002      -,302      -,067

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,116       ,062     -1,867       ,063      -,238       ,007

Indirect effect(s) of X on Y:
        Effect     BootSE   BootLLCI   BootULCI
PWB      -,069       ,026      -,126      -,025

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Mediation model - private techno-overload and QI

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : Interact
    X  : Techno_o
    M  : PWB

Covariates:
 Age

Sample
Size:  196

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,394       ,156    138,912     17,784      2,000    193,000       ,000

Model
              coeff         se          t          p       LLCI       ULCI
constant    109,812      3,514     31,249       ,000    102,881    116,743
Techno_o     -4,724       ,798     -5,917       ,000     -6,299     -3,149
Age            ,010       ,068       ,153       ,878      -,123       ,144

**************************************************************************
OUTCOME VARIABLE:
 Interact
```

```
Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,326       ,106       ,391      7,590      3,000    192,000       ,000

Model
              coeff         se          t          p       LLCI       ULCI
constant      1,988       ,459      4,332       ,000      1,083      2,893
Techno_o      -,084       ,046     -1,819       ,070      -,175       ,007
PWB            ,012       ,004      3,090       ,002       ,004       ,019
Age            ,007       ,004      1,988       ,048       ,000       ,014

************************* TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,248       ,062       ,408      6,330      2,000    193,000       ,002

Model
              coeff         se          t          p       LLCI       ULCI
constant      3,284       ,191     17,237       ,000      2,908      3,660
Techno_o      -,139       ,043     -3,222       ,001      -,225      -,054
Age            ,007       ,004      1,979       ,049       ,000       ,014


************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,139       ,043     -3,222       ,001      -,225      -,054

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,084       ,046     -1,819       ,070      -,175       ,007

Indirect effect(s) of X on Y:
        Effect     BootSE   BootLLCI   BootULCI
PWB      -,056       ,020      -,097      -,019

*********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Mediation model - private techno-invasion and QI

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : Interact
    X  : Techno_i
    M  : PWB

Covariates:
 Age

Sample
```

```
Size:  193

************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,276       ,076    152,698      7,862      2,000    190,000       ,001

Model
             coeff         se          t          p       LLCI       ULCI
constant    107,861      3,834     28,134       ,000    100,298    115,423
Techno_i     -2,925       ,750     -3,901       ,000     -4,404     -1,446
Age           -,043       ,070      -,615       ,540      -,182       ,095

************************************************************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,348       ,121       ,384      8,681      3,000    189,000       ,000

Model
             coeff         se          t          p       LLCI       ULCI
constant      1,894       ,437      4,333       ,000      1,032      2,757
Techno_i      -,083       ,039     -2,112       ,036      -,160      -,005
PWB            ,013       ,004      3,630       ,000       ,006       ,020
Age            ,006       ,004      1,816       ,071      -,001       ,013

************************** TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,245       ,060       ,409      6,047      2,000    190,000       ,003

Model
             coeff         se          t          p       LLCI       ULCI
constant      3,319       ,198     16,728       ,000      2,928      3,711
Techno_i      -,121       ,039     -3,124       ,002      -,198      -,045
Age            ,006       ,004      1,606       ,110      -,001       ,013


************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,121       ,039     -3,124       ,002      -,198      -,045

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,083       ,039     -2,112       ,036      -,160      -,005

Indirect effect(s) of X on Y:
        Effect     BootSE   BootLLCI   BootULCI
PWB      -,039       ,014      -,071      -,015

*********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

WARNING: Variables names longer than eight characters can produce incorrect output
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variable names are recommended. By using this output, you are accepting all risk
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------ END MATRIX -----
```

Mediation model - private techno-complexity and QI

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : Interact
    X  : Techno_c
    M  : PWB

Covariates:
 Age

Sample
Size:  191

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,345       ,119    146,283     12,710      2,000    188,000       ,000

Model
              coeff         se          t          p       LLCI       ULCI
constant    106,270      3,431     30,971       ,000     99,502    113,039
Techno_c     -4,440       ,892     -4,979       ,000     -6,200     -2,681
Age            ,050       ,072       ,690       ,491      -,093       ,193

**************************************************************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,309       ,095       ,388      6,561      3,000    187,000       ,000

Model
              coeff         se          t          p       LLCI       ULCI
constant      1,933       ,437      4,426       ,000      1,071      2,795
Techno_c      -,075       ,049     -1,533       ,127      -,171       ,022
PWB            ,012       ,004      3,154       ,002       ,004       ,019
Age            ,008       ,004      2,008       ,046       ,000       ,015

************************** TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,217       ,047       ,407      4,646      2,000    188,000       ,011

Model
              coeff         se          t          p       LLCI       ULCI
constant      3,193       ,181     17,642       ,000      2,836      3,550
Techno_c      -,128       ,047     -2,712       ,007      -,220      -,035
Age            ,008       ,004      2,120       ,035       ,001       ,016


************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,128       ,047     -2,712       ,007      -,220      -,035

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,075       ,049     -1,533       ,127      -,171       ,022

Indirect effect(s) of X on Y:
```

```
        Effect     BootSE   BootLLCI   BootULCI
PWB      -,053       ,021      -,099      -,017

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

WARNING: Variables names longer than eight characters can produce incorrect output
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variable names are recommended. By using this output, you are accepting all risk
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------ END MATRIX -----
```

Mediation model - private techno-uncertainty and QI

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : Interact
    X  : Techno_u
    M  : PWB

Covariates:
 Age

Sample
Size:  189

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,030       ,001    160,142       ,086      2,000    186,000       ,918

Model
              coeff         se          t          p       LLCI       ULCI
constant     99,477      5,335     18,648       ,000     88,953    110,001
Techno_u      -,035      1,017      -,034       ,973     -2,041      1,971
Age           -,030       ,073      -,412       ,681      -,173       ,113

**************************************************************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,293       ,086       ,404      5,786      3,000    185,000       ,001

Model
              coeff         se          t          p       LLCI       ULCI
constant      1,632       ,454      3,598       ,000       ,737      2,528
Techno_u      -,014       ,051      -,273       ,785      -,115       ,087
PWB            ,014       ,004      3,820       ,000       ,007       ,021
Age            ,006       ,004      1,759       ,080      -,001       ,014

************************ TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
       ,117       ,014       ,433      1,289      2,000    186,000       ,278
```

```
Model
              coeff         se          t          p       LLCI       ULCI
constant      3,031       ,277     10,925       ,000      2,484      3,579
Techno_u      -,014       ,053      -,273       ,785      -,119       ,090
Age            ,006       ,004      1,587       ,114      -,001       ,013


************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,014       ,053      -,273       ,785      -,119       ,090

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      -,014       ,051      -,273       ,785      -,115       ,087

Indirect effect(s) of X on Y:
        Effect     BootSE   BootLLCI   BootULCI
PWB       ,000       ,012      -,025       ,026

*********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Moderated mediation model - organizational technostress and STR

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 14
    Y  : Satisf_w
    X  : Technost
    M  : PWB
    W  : Extraver

Covariates:
 Age

Sample
Size:  191

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3984      ,1587   135,4516    17,7364     2,0000   188,0000      ,0000

Model
              coeff         se          t          p       LLCI       ULCI
constant    17,2093     3,9522     4,3543      ,0000     9,4129    25,0056
Technost    -6,6113     1,1200    -5,9028      ,0000    -8,8208    -4,4019
Age           ,0372      ,0682      ,5456      ,5860     -,0973      ,1716

**************************************************************************
OUTCOME VARIABLE:
```

```
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,4062      ,1650      ,5215     7,3125     5,0000   185,0000      ,0000

Model
             coeff         se          t          p       LLCI       ULCI
constant     4,6376      ,2579    17,9791      ,0000     4,1287     5,1465
Technost     -,1520      ,0764    -1,9893      ,0481     -,3027     -,0013
PWB           ,0153      ,0046     3,3024      ,0012      ,0062      ,0245
Extraver      ,1473      ,0614     2,3988      ,0174      ,0261      ,2684
Int_1        -,0022      ,0045     -,4937      ,6221     -,0112      ,0067
Age          -,0023      ,0043     -,5331      ,5946     -,0107      ,0061

Product terms key:
 Int_1    :        PWB      x        Extraver

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
M*W      ,0011      ,2438     1,0000   185,0000      ,6221


****************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,1520      ,0764    -1,9893      ,0481     -,3027     -,0013

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 Technost    ->    PWB         ->    Satisf_w

   Extraver     Effect     BootSE   BootLLCI   BootULCI
     -,9888     -,1160      ,0525     -,2352     -,0317
      ,0812     -,1001      ,0366     -,1818     -,0372
      ,8312     -,0890      ,0421     -,1777     -,0104

      Index of moderated mediation:
              Index     BootSE   BootLLCI   BootULCI
Extraver      ,0148      ,0323     -,0415      ,0885

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

W values in conditional tables are the 16th, 50th, and 84th percentiles.

NOTE: The following variables were mean centered prior to analysis:
          Extraver PWB

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Moderated mediation model - organizational techno-overload and STR

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 14
    Y  : Satisf_w
```

```
    X  : Techno_o
    M  : PWB
    W  : Extraver

Covariates:
 Age

Sample
Size:  188

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3345      ,1119   137,1598    11,6548     2,0000   185,0000      ,0000

Model
             coeff         se          t          p       LLCI       ULCI
constant    10,9288     3,5076     3,1158      ,0021     4,0088    17,8488
Techno_o    -3,8826      ,8268    -4,6958      ,0000    -5,5139    -2,2514
Age          -,0175      ,0688     -,2537      ,8000     -,1533      ,1183

**************************************************************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,4103      ,1684      ,5269     7,3698     5,0000   182,0000      ,0000

Model
             coeff         se          t          p       LLCI       ULCI
constant     4,4269      ,2230    19,8473      ,0000     3,9868     4,8670
Techno_o     -,0702      ,0546    -1,2854      ,2003     -,1780      ,0376
PWB           ,0182      ,0047     3,8943      ,0001      ,0090      ,0274
Extraver      ,1580      ,0626     2,5247      ,0124      ,0345      ,2816
Int_1        -,0043      ,0049     -,8905      ,3744     -,0139      ,0053
Age          -,0030      ,0043     -,7018      ,4837     -,0115      ,0055

Product terms key:
 Int_1    :        PWB      x        Extraver

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
M*W      ,0036      ,7930     1,0000   182,0000      ,3744


****************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,0702      ,0546    -1,2854      ,2003     -,1780      ,0376

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 Techno_o    ->    PWB         ->    Satisf_w

   Extraver     Effect     BootSE   BootLLCI   BootULCI
     -,9176     -,0860      ,0340     -,1628     -,0300
      ,0824     -,0692      ,0235     -,1200     -,0286
      ,8324     -,0566      ,0260     -,1104     -,0077

      Index of moderated mediation:
             Index     BootSE   BootLLCI   BootULCI
Extraver      ,0168      ,0209     -,0194      ,0633

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000
```

```
W values in conditional tables are the 16th, 50th, and 84th percentiles.

NOTE: The following variables were mean centered prior to analysis:
          Extraver PWB

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Moderated mediation model - organizational techno-invasion and STR

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 14
    Y  : Satisf_w
    X  : Techno_i
    M  : PWB
    W  : Extraver

Covariates:
 Age

Sample
Size:  190

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,2752      ,0757   147,7189     7,6631     2,0000   187,0000      ,0006

Model
             coeff         se          t          p       LLCI       ULCI
constant     9,5897     3,7027     2,5899      ,0104     2,2852    16,8942
Techno_i    -3,0508      ,7940    -3,8422      ,0002    -4,6172    -1,4844
Age          -,0221      ,0698     -,3165      ,7520     -,1598      ,1156

**************************************************************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,4012      ,1610      ,5267     7,0592     5,0000   184,0000      ,0000

Model
             coeff         se          t          p       LLCI       ULCI
constant     4,4965      ,2250    19,9816      ,0000     4,0525     4,9404
Techno_i     -,0863      ,0496    -1,7402      ,0835     -,1842      ,0115
PWB           ,0170      ,0045     3,7998      ,0002      ,0082      ,0258
Extraver      ,1490      ,0619     2,4081      ,0170      ,0269      ,2711
Int_1        -,0013      ,0046     -,2954      ,7680     -,0103      ,0076
Age          -,0034      ,0042     -,8209      ,4128     -,0117      ,0048

Product terms key:
 Int_1    :        PWB      x        Extraver

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
M*W      ,0004      ,0873     1,0000   184,0000      ,7680


***************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************
```

```
Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,0863      ,0496    -1,7402      ,0835     -,1842      ,0115

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 Techno_i    ->    PWB         ->    Satisf_w

   Extraver     Effect     BootSE   BootLLCI   BootULCI
    -1,0258     -,0560      ,0273     -,1216     -,0138
      ,0842     -,0515      ,0201     -,0986     -,0184
      ,8342     -,0484      ,0223     -,0977     -,0103

      Index of moderated mediation:
             Index     BootSE   BootLLCI   BootULCI
Extraver      ,0041      ,0154     -,0234      ,0381

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

W values in conditional tables are the 16th, 50th, and 84th percentiles.

NOTE: The following variables were mean centered prior to analysis:
          Extraver PWB

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Moderated mediation model - organizational techno-complexity and STR

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 14
    Y  : Satisf_w
    X  : Techno_c
    M  : PWB
    W  : Extraver

Covariates:
 Age

Sample
Size:  188

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3591      ,1290   135,2913    13,6939     2,0000   185,0000      ,0000

Model
             coeff         se          t          p       LLCI       ULCI
constant    10,2323     3,3615     3,0440      ,0027     3,6005    16,8641
Techno_c    -4,3826      ,8541    -5,1314      ,0000    -6,0675    -2,6976
Age           ,0096      ,0683      ,1399      ,8889     -,1253      ,1444

**************************************************************************
```

```
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,4011      ,1609      ,5287     6,9774     5,0000   182,0000      ,0000

Model
             coeff         se          t          p       LLCI       ULCI
constant     4,3505      ,2156    20,1767      ,0000     3,9251     4,7760
Techno_c     -,0451      ,0572     -,7884      ,4315     -,1579      ,0677
PWB           ,0190      ,0047     4,0725      ,0001      ,0098      ,0282
Extraver      ,1448      ,0619     2,3385      ,0204      ,0226      ,2670
Int_1        -,0042      ,0048     -,8833      ,3782     -,0137      ,0052
Age          -,0032      ,0043     -,7333      ,4643     -,0117      ,0053

Product terms key:
 Int_1    :        PWB      x        Extraver

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
M*W      ,0036      ,7802     1,0000   182,0000      ,3782


****************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,0451      ,0572     -,7884      ,4315     -,1579      ,0677

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 Techno_c    ->    PWB         ->    Satisf_w

   Extraver     Effect     BootSE   BootLLCI   BootULCI
     -,9255     -,1006      ,0362     -,1814     -,0384
      ,0745     -,0820      ,0255     -,1360     -,0361
      ,8245     -,0680      ,0295     -,1264     -,0106

      Index of moderated mediation:
              Index     BootSE   BootLLCI   BootULCI
Extraver      ,0186      ,0233     -,0237      ,0675

*********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

W values in conditional tables are the 16th, 50th, and 84th percentiles.

NOTE: The following variables were mean centered prior to analysis:
          Extraver PWB

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Moderated mediation model - organizational techno-insecurity and STR

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 14
```

```
    Y  : Satisf_w
    X  : Techno_i
    M  : PWB
    W  : Extraver

Covariates:
 Age

Sample
Size:  190

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,4212      ,1774   132,9641    20,1670     2,0000   187,0000      ,0000

Model
             coeff         se          t          p       LLCI       ULCI
constant    11,4504     3,3579     3,4100      ,0008     4,8261    18,0746
Techno_i    -4,6712      ,7410    -6,3041      ,0000    -6,1330    -3,2094
Age           ,0063      ,0665      ,0944      ,9249     -,1250      ,1375

**************************************************************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,4279      ,1831      ,5128     8,2495     5,0000   184,0000      ,0000

Model
             coeff         se          t          p       LLCI       ULCI
constant     4,5845      ,2157    21,2500      ,0000     4,1588     5,0101
Techno_i     -,1457      ,0511    -2,8508      ,0049     -,2466     -,0449
PWB           ,0135      ,0046     2,8981      ,0042      ,0043      ,0226
Extraver      ,1430      ,0609     2,3486      ,0199      ,0229      ,2631
Int_1        -,0029      ,0045     -,6493      ,5169     -,0119      ,0060
Age          -,0026      ,0042     -,6217      ,5349     -,0108      ,0056

Product terms key:
 Int_1    :        PWB      x        Extraver

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
M*W      ,0019      ,4217     1,0000   184,0000      ,5169


***************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,1457      ,0511    -2,8508      ,0049     -,2466     -,0449

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 Techno_i    ->    PWB         ->    Satisf_w

   Extraver     Effect     BootSE   BootLLCI   BootULCI
    -1,0337     -,0770      ,0361     -,1604     -,0177
      ,0763     -,0618      ,0238     -,1126     -,0195
      ,8263     -,0515      ,0278     -,1079      ,0014

      Index of moderated mediation:
             Index     BootSE   BootLLCI   BootULCI
Extraver      ,0137      ,0224     -,0248      ,0648

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000
```

```
W values in conditional tables are the 16th, 50th, and 84th percentiles.

NOTE: The following variables were mean centered prior to analysis:
          Extraver PWB

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Moderated mediation model - organizational techno-uncertainty and STR

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 14
    Y  : Satisf_w
    X  : Techno_u
    M  : PWB
    W  : Extraver

Covariates:
 Age

Sample
Size:  189

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,0800      ,0064   161,2431      ,5987     2,0000   186,0000      ,5506

Model
             coeff         se          t          p       LLCI       ULCI
constant     4,8976     4,5998     1,0647      ,2884    -4,1769    13,9722
Techno_u     -,8419      ,9904     -,8500      ,3964    -2,7958     1,1121
Age          -,0381      ,0745     -,5114      ,6097     -,1851      ,1089

**************************************************************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3827      ,1464      ,5336     6,2785     5,0000   183,0000      ,0000

Model
             coeff         se          t          p       LLCI       ULCI
constant     4,2768      ,2665    16,0492      ,0000     3,7511     4,8026
Techno_u      ,0027      ,0575      ,0469      ,9626     -,1107      ,1161
PWB           ,0188      ,0043     4,3722      ,0000      ,0103      ,0273
Extraver      ,1406      ,0623     2,2560      ,0253      ,0176      ,2635
Int_1        -,0011      ,0046     -,2333      ,8158     -,0102      ,0080
Age          -,0044      ,0043    -1,0153      ,3113     -,0129      ,0041

Product terms key:
 Int_1    :        PWB      x        Extraver

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
M*W      ,0003      ,0544     1,0000   183,0000      ,8158


***************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************
```

```
Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      ,0027      ,0575      ,0469      ,9626     -,1107      ,1161

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 Techno_u    ->    PWB         ->    Satisf_w

   Extraver     Effect     BootSE   BootLLCI   BootULCI
    -1,0667     -,0168      ,0235     -,0750      ,0183
      ,0833     -,0158      ,0195     -,0583      ,0185
      ,8333     -,0151      ,0183     -,0540      ,0189

      Index of moderated mediation:
              Index     BootSE   BootLLCI   BootULCI
Extraver      ,0009      ,0069     -,0083      ,0202

************************ ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

W values in conditional tables are the 16th, 50th, and 84th percentiles.

NOTE: The following variables were mean centered prior to analysis:
          Extraver PWB

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Moderated mediation model - organizational technostress and QI

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 14
    Y  : Interact
    X  : Technost
    M  : PWB
    W  : Extraver

Covariates:
 Age

Sample
Size:  193

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3905      ,1525   138,4077    17,0923     2,0000   190,0000      ,0000

Model
              coeff         se          t          p       LLCI       ULCI
constant    16,9831     3,9702     4,2777      ,0000     9,1518    24,8144
Technost    -6,5217     1,1264    -5,7896      ,0000    -8,7436    -4,2997
Age           ,0375      ,0688      ,5450      ,5864     -,0981      ,1731
```

```
**************************************************************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3974      ,1579      ,3719     7,0132     5,0000   187,0000      ,0000

Model
             coeff         se          t          p       LLCI       ULCI
constant     3,3772      ,2161    15,6287      ,0000     2,9509     3,8035
Technost     -,1985      ,0640    -3,0997      ,0022     -,3248     -,0722
PWB           ,0072      ,0039     1,8543      ,0653     -,0005      ,0148
Extraver      ,1513      ,0516     2,9345      ,0038      ,0496      ,2531
Int_1        -,0032      ,0038     -,8421      ,4008     -,0108      ,0043
Age           ,0095      ,0036     2,6424      ,0089      ,0024      ,0166

Product terms key:
 Int_1    :        PWB      x        Extraver

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
M*W      ,0032      ,7091     1,0000   187,0000      ,4008


***************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,1985      ,0640    -3,0997      ,0022     -,3248     -,0722

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 Technost    ->    PWB         ->    Interact

   Extraver     Effect     BootSE   BootLLCI   BootULCI
     -,9236     -,0662      ,0330     -,1417     -,0094
      ,0764     -,0452      ,0266     -,1026      ,0020
      ,8264     -,0294      ,0367     -,1085      ,0343

      Index of moderated mediation:
              Index     BootSE   BootLLCI   BootULCI
Extraver      ,0210      ,0265     -,0301      ,0735

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

W values in conditional tables are the 16th, 50th, and 84th percentiles.

NOTE: The following variables were mean centered prior to analysis:
          Extraver PWB

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Moderated mediation model - organizational techno-overload and QI

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
```

```
Model  : 14
    Y  : Interact
    X  : Techno_o
    M  : PWB
    W  : Extraver

Covariates:
 Age

Sample
Size:  190

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3148      ,0991   141,3756    10,2877     2,0000   187,0000      ,0001

Model
              coeff         se          t          p       LLCI       ULCI
constant    10,5374     3,5460     2,9716      ,0034     3,5420    17,5328
Techno_o    -3,6666      ,8349    -4,3918      ,0000    -5,3136    -2,0196
Age          -,0213      ,0697     -,3063      ,7598     -,1588      ,1161

**************************************************************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3748      ,1405      ,3783     6,0141     5,0000   184,0000      ,0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     3,1125      ,1877    16,5781      ,0000     2,7421     3,4829
Techno_o     -,0956      ,0457    -2,0911      ,0379     -,1859     -,0054
PWB           ,0106      ,0039     2,7422      ,0067      ,0030      ,0183
Extraver      ,1431      ,0527     2,7131      ,0073      ,0390      ,2472
Int_1        -,0022      ,0041     -,5439      ,5872     -,0104      ,0059
Age           ,0083      ,0036     2,2790      ,0238      ,0011      ,0154

Product terms key:
 Int_1    :        PWB      x        Extraver

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
M*W      ,0014      ,2958     1,0000   184,0000      ,5872


***************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,0956      ,0457    -2,0911      ,0379     -,1859     -,0054

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 Techno_o    ->    PWB         ->    Interact

   Extraver     Effect     BootSE   BootLLCI   BootULCI
     -,9224     -,0466      ,0216     -,0940     -,0084
      ,0776     -,0384      ,0172     -,0764     -,0104
      ,8276     -,0322      ,0227     -,0849      ,0029

      Index of moderated mediation:
              Index     BootSE   BootLLCI   BootULCI
Extraver      ,0082      ,0163     -,0260      ,0393

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
```

```
  5000

W values in conditional tables are the 16th, 50th, and 84th percentiles.

NOTE: The following variables were mean centered prior to analysis:
          Extraver PWB

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Moderated mediation model - organizational techno-invasion and QI

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 14
    Y  : Interact
    X  : Techno_i
    M  : PWB
    W  : Extraver

Covariates:
 Age

Sample
Size:  192

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,2665      ,0710   150,6095     7,2248     2,0000   189,0000      ,0009

Model
              coeff         se          t          p       LLCI       ULCI
constant     9,3903     3,7166     2,5266      ,0123     2,0591    16,7216
Techno_i    -2,9660      ,7969    -3,7221      ,0003    -4,5379    -1,3941
Age          -,0224      ,0703     -,3182      ,7507     -,1610      ,1163

**************************************************************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3663      ,1342      ,3845     5,7642     5,0000   186,0000      ,0001

Model
              coeff         se          t          p       LLCI       ULCI
constant     3,1268      ,1909    16,3753      ,0000     2,7501     3,5035
Techno_i     -,0844      ,0421    -2,0046      ,0465     -,1674     -,0013
PWB           ,0100      ,0038     2,6643      ,0084      ,0026      ,0175
Extraver      ,1485      ,0526     2,8224      ,0053      ,0447      ,2522
Int_1        -,0020      ,0039     -,5212      ,6028     -,0097      ,0056
Age           ,0077      ,0036     2,1458      ,0332      ,0006      ,0147

Product terms key:
 Int_1    :        PWB      x        Extraver

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
M*W      ,0013      ,2716     1,0000   186,0000      ,6028
```

```
****************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,0844      ,0421    -2,0046      ,0465     -,1674     -,0013

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 Techno_i    ->    PWB         ->    Interact

   Extraver     Effect     BootSE   BootLLCI   BootULCI
     -,9506     -,0355      ,0173     -,0742     -,0076
      ,0794     -,0293      ,0136     -,0603     -,0073
      ,8294     -,0248      ,0182     -,0674      ,0045

      Index of moderated mediation:
              Index     BootSE   BootLLCI   BootULCI
Extraver      ,0060      ,0131     -,0195      ,0327

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

W values in conditional tables are the 16th, 50th, and 84th percentiles.

NOTE: The following variables were mean centered prior to analysis:
          Extraver PWB

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Moderated mediation model - organizational techno-complexity and QI

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 14
    Y  : Interact
    X  : Techno_c
    M  : PWB
    W  : Extraver

Covariates:
 Age

Sample
Size:  190

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3593      ,1291   137,3934    13,8609     2,0000   187,0000      ,0000

Model
             coeff         se          t          p       LLCI       ULCI
constant    10,3689     3,3784     3,0691      ,0025     3,7041    17,0336
Techno_c    -4,4345      ,8595    -5,1591      ,0000    -6,1301    -2,7388
Age           ,0100      ,0687      ,1458      ,8842     -,1255      ,1455
```

```
**************************************************************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3486      ,1215      ,3741     5,0917     5,0000   184,0000      ,0002

Model
              coeff         se          t          p       LLCI       ULCI
constant     3,0451      ,1808    16,8402      ,0000     2,6884     3,4019
Techno_c     -,0610      ,0481    -1,2693      ,2059     -,1558      ,0338
PWB           ,0105      ,0039     2,6964      ,0077      ,0028      ,0181
Extraver      ,1362      ,0518     2,6319      ,0092      ,0341      ,2384
Int_1        -,0034      ,0040     -,8493      ,3968     -,0114      ,0045
Age           ,0077      ,0036     2,1379      ,0338      ,0006      ,0148

Product terms key:
 Int_1    :        PWB      x        Extraver

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
M*W      ,0034      ,7213     1,0000   184,0000      ,3968


****************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,0610      ,0481    -1,2693      ,2059     -,1558      ,0338

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 Techno_c    ->    PWB         ->    Interact

   Extraver     Effect     BootSE   BootLLCI   BootULCI
     -,9303     -,0605      ,0277     -,1200     -,0124
      ,0697     -,0453      ,0208     -,0917     -,0107
      ,8197     -,0339      ,0260     -,0940      ,0094

      Index of moderated mediation:
              Index     BootSE   BootLLCI   BootULCI
Extraver      ,0152      ,0194     -,0252      ,0523

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

W values in conditional tables are the 16th, 50th, and 84th percentiles.

NOTE: The following variables were mean centered prior to analysis:
          Extraver PWB

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Moderated mediation model - organizational techno-insecurity and QI

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3
```

```
**************************************************************************
Model  : 14
    Y  : Interact
    X  : Techno_i
    M  : PWB
    W  : Extraver

Covariates:
 Age

Sample
Size:  191

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,4207      ,1770   135,6130    20,2129     2,0000   188,0000      ,0000

Model
             coeff         se          t          p       LLCI       ULCI
constant    11,6942     3,3909     3,4487      ,0007     5,0051    18,3832
Techno_i    -4,7169      ,7480    -6,3057      ,0000    -6,1925    -3,2412
Age           ,0036      ,0672      ,0539      ,9571     -,1289      ,1362

**************************************************************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,4298      ,1847      ,3586     8,3815     5,0000   185,0000      ,0000

Model
             coeff         se          t          p       LLCI       ULCI
constant     3,2679      ,1805    18,1038      ,0000     2,9117     3,6240
Techno_i     -,1716      ,0427    -4,0165      ,0001     -,2559     -,0873
PWB           ,0053      ,0038     1,3718      ,1718     -,0023      ,0128
Extraver      ,1434      ,0509     2,8159      ,0054      ,0429      ,2438
Int_1        -,0037      ,0038     -,9893      ,3238     -,0112      ,0037
Age           ,0087      ,0035     2,5133      ,0128      ,0019      ,0156

Product terms key:
 Int_1    :        PWB      x        Extraver

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
M*W      ,0043      ,9786     1,0000   185,0000      ,3238


****************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,1716      ,0427    -4,0165      ,0001     -,2559     -,0873

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 Techno_i    ->    PWB         ->    Interact

   Extraver     Effect     BootSE   BootLLCI   BootULCI
     -,9915     -,0423      ,0245     -,0961      ,0001
      ,0785     -,0234      ,0186     -,0610      ,0128
      ,8285     -,0102      ,0276     -,0651      ,0427

      Index of moderated mediation:
              Index     BootSE   BootLLCI   BootULCI
Extraver      ,0176      ,0209     -,0218      ,0612

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000
```

```
Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

W values in conditional tables are the 16th, 50th, and 84th percentiles.

NOTE: The following variables were mean centered prior to analysis:
          Extraver PWB

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Moderated mediation model - organizational techno-uncertainty and QI

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 14
    Y  : Interact
    X  : Techno_u
    M  : PWB
    W  : Extraver

Covariates:
 Age

Sample
Size:  191

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,0828      ,0068   163,4473      ,6482     2,0000   188,0000      ,5241

Model
              coeff         se          t          p       LLCI       ULCI
constant     5,1076     4,6143     1,1069      ,2697    -3,9949    14,2100
Techno_u     -,8847      ,9953     -,8889      ,3752    -2,8480     1,0786
Age          -,0389      ,0748     -,5203      ,6035     -,1865      ,1087

**************************************************************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3440      ,1183      ,3883     4,9664     5,0000   185,0000      ,0003

Model
              coeff         se          t          p       LLCI       ULCI
constant     3,0337      ,2264    13,3984      ,0000     2,5870     3,4804
Techno_u     -,0294      ,0489     -,6016      ,5482     -,1260      ,0671
PWB           ,0116      ,0036     3,1872      ,0017      ,0044      ,0187
Extraver      ,1440      ,0528     2,7264      ,0070      ,0398      ,2481
Int_1        -,0019      ,0039     -,4762      ,6345     -,0096      ,0059
Age           ,0068      ,0037     1,8538      ,0654     -,0004      ,0140

Product terms key:
 Int_1    :        PWB      x        Extraver

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
M*W      ,0011      ,2268     1,0000   185,0000      ,6345
```

```
****************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,0294      ,0489     -,6016      ,5482     -,1260      ,0671

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 Techno_u    ->    PWB         ->    Interact

   Extraver     Effect     BootSE   BootLLCI   BootULCI
     -,9915     -,0119      ,0145     -,0449      ,0123
      ,0785     -,0101      ,0124     -,0379      ,0110
      ,8285     -,0089      ,0126     -,0396      ,0108

      Index of moderated mediation:
              Index     BootSE   BootLLCI   BootULCI
Extraver      ,0017      ,0058     -,0097      ,0155

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

W values in conditional tables are the 16th, 50th, and 84th percentiles.

NOTE: The following variables were mean centered prior to analysis:
          Extraver PWB

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Moderated mediation model - private technostress and STR

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 14
    Y  : Satisf_w
    X  : Technost
    M  : PWB
    W  : Extraver

Covariates:
 Age

Sample
Size:  191

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3414      ,1166   142,2384    12,4050     2,0000   188,0000      ,0000

Model
             coeff         se          t          p       LLCI       ULCI
constant    16,3871     4,2302     3,8738      ,0001     8,0423    24,7319
Technost    -5,5204     1,1219    -4,9204      ,0000    -7,7336    -3,3072
```

```
Age           ,0056      ,0691      ,0807      ,9358     -,1307      ,1419

**************************************************************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3988      ,1591      ,5253     6,9993     5,0000   185,0000      ,0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     4,5934      ,2672    17,1913      ,0000     4,0663     5,1206
Technost     -,1176      ,0727    -1,6192      ,1071     -,2610      ,0257
PWB           ,0166      ,0045     3,6562      ,0003      ,0076      ,0255
Extraver      ,1427      ,0615     2,3206      ,0214      ,0214      ,2640
Int_1        -,0016      ,0045     -,3444      ,7310     -,0105      ,0074
Age          -,0031      ,0042     -,7323      ,4649     -,0114      ,0052

Product terms key:
 Int_1    :        PWB      x        Extraver

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
M*W      ,0005      ,1186     1,0000   185,0000      ,7310


****************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,1176      ,0727    -1,6192      ,1071     -,2610      ,0257

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 Technost    ->    PWB         ->    Satisf_w

   Extraver     Effect     BootSE   BootLLCI   BootULCI
     -,9888     -,1000      ,0456     -,2068     -,0262
      ,0812     -,0907      ,0312     -,1608     -,0379
      ,8312     -,0843      ,0350     -,1579     -,0202

      Index of moderated mediation:
              Index     BootSE   BootLLCI   BootULCI
Extraver      ,0086      ,0275     -,0368      ,0712

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

W values in conditional tables are the 16th, 50th, and 84th percentiles.

NOTE: The following variables were mean centered prior to analysis:
          Extraver PWB

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Moderated mediation model - private techno-overload and STR

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3
```

```
**************************************************************************
Model  : 14
    Y  : Satisf_w
    X  : Techno_o
    M  : PWB
    W  : Extraver

Covariates:
 Age

Sample
Size:  191

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3961      ,1569   135,7496    17,4911     2,0000   188,0000      ,0000

Model
             coeff         se          t          p       LLCI       ULCI
constant    12,3419     3,4931     3,5332      ,0005     5,4512    19,2326
Techno_o    -4,6534      ,7939    -5,8612      ,0000    -6,2196    -3,0873
Age           ,0037      ,0672      ,0550      ,9562     -,1289      ,1362

**************************************************************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,4106      ,1686      ,5193     7,5044     5,0000   185,0000      ,0000

Model
             coeff         se          t          p       LLCI       ULCI
constant     4,5481      ,2231    20,3850      ,0000     4,1079     4,9883
Techno_o     -,1178      ,0539    -2,1853      ,0301     -,2242     -,0115
PWB           ,0149      ,0046     3,2230      ,0015      ,0058      ,0241
Extraver      ,1537      ,0615     2,4980      ,0134      ,0323      ,2752
Int_1        -,0013      ,0045     -,2944      ,7688     -,0102      ,0076
Age          -,0029      ,0042     -,7020      ,4836     -,0112      ,0053

Product terms key:
 Int_1    :        PWB      x        Extraver

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
M*W      ,0004      ,0867     1,0000   185,0000      ,7688


***************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,1178      ,0539    -2,1853      ,0301     -,2242     -,0115

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 Techno_o    ->    PWB         ->    Satisf_w

   Extraver     Effect     BootSE   BootLLCI   BootULCI
     -,9888     -,0756      ,0366     -,1610     -,0173
      ,0812     -,0690      ,0248     -,1212     -,0243
      ,8312     -,0644      ,0283     -,1180     -,0061

      Index of moderated mediation:
             Index     BootSE   BootLLCI   BootULCI
Extraver      ,0062      ,0225     -,0305      ,0577

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000
```

```
Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

W values in conditional tables are the 16th, 50th, and 84th percentiles.

NOTE: The following variables were mean centered prior to analysis:
          Extraver PWB

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Moderated mediation model - private techno-invasion and STR

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 14
    Y  : Satisf_w
    X  : Techno_i
    M  : PWB
    W  : Extraver

Covariates:
 Age

Sample
Size:  188

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,2591      ,0671   150,9397     6,6544     2,0000   185,0000      ,0016

Model
              coeff         se          t          p       LLCI       ULCI
constant     9,9565     3,8621     2,5780      ,0107     2,3371    17,5759
Techno_i    -2,7297      ,7645    -3,5707      ,0005    -4,2379    -1,2215
Age          -,0498      ,0702     -,7091      ,4791     -,1883      ,0887

**************************************************************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,4268      ,1821      ,5097     8,1057     5,0000   182,0000      ,0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     4,5761      ,2285    20,0255      ,0000     4,1252     5,0270
Techno_i     -,1044      ,0461    -2,2643      ,0247     -,1954     -,0134
PWB           ,0172      ,0044     3,9465      ,0001      ,0086      ,0259
Extraver      ,1537      ,0612     2,5134      ,0128      ,0330      ,2744
Int_1        -,0010      ,0045     -,2147      ,8302     -,0098      ,0079
Age          -,0039      ,0041     -,9445      ,3462     -,0120      ,0042

Product terms key:
 Int_1    :        PWB      x        Extraver

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
M*W      ,0002      ,0461     1,0000   182,0000      ,8302
```

```
****************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,1044      ,0461    -2,2643      ,0247     -,1954     -,0134

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 Techno_i    ->    PWB         ->    Satisf_w

   Extraver     Effect     BootSE   BootLLCI   BootULCI
    -1,1022     -,0500      ,0267     -,1143     -,0109
      ,0878     -,0469      ,0182     -,0875     -,0160
      ,8378     -,0449      ,0188     -,0838     -,0101

      Index of moderated mediation:
              Index     BootSE   BootLLCI   BootULCI
Extraver      ,0026      ,0135     -,0186      ,0359

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

W values in conditional tables are the 16th, 50th, and 84th percentiles.

NOTE: The following variables were mean centered prior to analysis:
          Extraver PWB

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Moderated mediation model - private techno-complexity and STR

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 14
    Y  : Satisf_w
    X  : Techno_c
    M  : PWB
    W  : Extraver

Covariates:
 Age

Sample
Size:  186

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3653      ,1335   140,8155    14,0939     2,0000   183,0000      ,0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     9,2458     3,3863     2,7303      ,0069     2,5645    15,9271
```

```
Techno_c    -4,6776      ,8923    -5,2423      ,0000    -6,4381    -2,9171
Age           ,0494      ,0714      ,6926      ,4894     -,0914      ,1902

************************************************************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,4037      ,1630      ,5070     7,0088     5,0000   180,0000      ,0000

Model
             coeff         se          t          p       LLCI       ULCI
constant     4,4264      ,2077    21,3152      ,0000     4,0166     4,8361
Techno_c     -,0468      ,0575     -,8143      ,4166     -,1603      ,0667
PWB           ,0171      ,0045     3,7737      ,0002      ,0081      ,0260
Extraver      ,1554      ,0608     2,5547      ,0115      ,0354      ,2754
Int_1        -,0007      ,0045     -,1617      ,8717     -,0096      ,0081
Age          -,0045      ,0043    -1,0501      ,2951     -,0130      ,0040

Product terms key:
 Int_1    :        PWB      x        Extraver

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
M*W      ,0001      ,0262     1,0000   180,0000      ,8717


***************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,0468      ,0575     -,8143      ,4166     -,1603      ,0667

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 Techno_c    ->    PWB         ->    Satisf_w

   Extraver     Effect     BootSE   BootLLCI   BootULCI
     -,9447     -,0831      ,0356     -,1626     -,0226
      ,0753     -,0796      ,0260     -,1366     -,0343
      ,8253     -,0771      ,0312     -,1424     -,0190

      Index of moderated mediation:
             Index     BootSE   BootLLCI   BootULCI
Extraver      ,0034      ,0235     -,0396      ,0537

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

W values in conditional tables are the 16th, 50th, and 84th percentiles.

NOTE: The following variables were mean centered prior to analysis:
          Extraver PWB

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Moderated mediation model - private techno-uncertainty and STR

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
```

```
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 14
    Y  : Satisf_w
    X  : Techno_u
    M  : PWB
    W  : Extraver

Covariates:
 Age

Sample
Size:  185

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,0381      ,0014   159,7481      ,1320     2,0000   182,0000      ,8764

Model
              coeff         se          t          p       LLCI       ULCI
constant      ,8967     5,3572      ,1674      ,8673    -9,6735    11,4669
Techno_u      ,1607     1,0212      ,1574      ,8751    -1,8542     2,1756
Age          -,0359      ,0729     -,4921      ,6232     -,1797      ,1079

**************************************************************************
OUTCOME VARIABLE:
 Satisf_w

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3847      ,1480      ,5404     6,2179     5,0000   179,0000      ,0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     4,2605      ,3120    13,6570      ,0000     3,6449     4,8761
Techno_u      ,0093      ,0594      ,1562      ,8761     -,1080      ,1265
PWB           ,0189      ,0044     4,3158      ,0000      ,0103      ,0276
Extraver      ,1482      ,0631     2,3501      ,0199      ,0238      ,2726
Int_1        -,0016      ,0047     -,3467      ,7292     -,0109      ,0077
Age          -,0044      ,0043    -1,0277      ,3055     -,0128      ,0040

Product terms key:
 Int_1    :        PWB      x        Extraver

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
M*W      ,0006      ,1202     1,0000   179,0000      ,7292


***************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
      ,0093      ,0594      ,1562      ,8761     -,1080      ,1265

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 Techno_u    ->    PWB         ->    Satisf_w

   Extraver     Effect     BootSE   BootLLCI   BootULCI
     -,9351      ,0033      ,0185     -,0318      ,0436
      ,0649      ,0030      ,0161     -,0272      ,0372
      ,8149      ,0028      ,0151     -,0256      ,0356

      Index of moderated mediation:
              Index     BootSE   BootLLCI   BootULCI
Extraver     -,0003      ,0049     -,0116      ,0095

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
```

```
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

W values in conditional tables are the 16th, 50th, and 84th percentiles.

NOTE: The following variables were mean centered prior to analysis:
          Extraver PWB

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Moderated mediation model - private technostress and QI

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 14
    Y  : Interact
    X  : Technost
    M  : PWB
    W  : Extraver

Covariates:
 Age

Sample
Size:  193

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3480      ,1211   143,5298    13,0921     2,0000   190,0000      ,0000

Model
              coeff         se          t          p       LLCI       ULCI
constant    16,7367     4,2204     3,9657      ,0001     8,4119    25,0615
Technost    -5,6539     1,1187    -5,0540      ,0000    -7,8607    -3,4472
Age           ,0081      ,0692      ,1172      ,9068     -,1285      ,1447

**************************************************************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3696      ,1366      ,3814     5,9155     5,0000   187,0000      ,0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     3,2713      ,2264    14,4477      ,0000     2,8247     3,7180
Technost     -,1343      ,0616    -2,1792      ,0306     -,2560     -,0127
PWB           ,0091      ,0038     2,3659      ,0190      ,0015      ,0166
Extraver      ,1431      ,0521     2,7471      ,0066      ,0403      ,2458
Int_1        -,0023      ,0039     -,5828      ,5607     -,0099      ,0054
Age           ,0082      ,0036     2,2838      ,0235      ,0011      ,0153

Product terms key:
 Int_1    :        PWB      x        Extraver

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
```

```
M*W      ,0016      ,3397     1,0000   187,0000      ,5607


****************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,1343      ,0616    -2,1792      ,0306     -,2560     -,0127

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 Technost    ->    PWB         ->    Interact

   Extraver     Effect     BootSE   BootLLCI   BootULCI
     -,9236     -,0630      ,0295     -,1301     -,0138
      ,0764     -,0503      ,0245     -,1079     -,0115
      ,8264     -,0407      ,0333     -,1178      ,0119

      Index of moderated mediation:
              Index     BootSE   BootLLCI   BootULCI
Extraver      ,0127      ,0232     -,0354      ,0571

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

W values in conditional tables are the 16th, 50th, and 84th percentiles.

NOTE: The following variables were mean centered prior to analysis:
          Extraver PWB

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Moderated mediation model - private techno-overload and QI

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 14
    Y  : Interact
    X  : Techno_o
    M  : PWB
    W  : Extraver

Covariates:
 Age

Sample
Size:  193

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3940      ,1552   137,9597    17,4563     2,0000   190,0000      ,0000

Model
              coeff         se          t          p       LLCI       ULCI
```

```
constant    12,3727     3,5062     3,5288      ,0005     5,4566    19,2888
Techno_o    -4,6673      ,7976    -5,8519      ,0000    -6,2405    -3,0941
Age           ,0049      ,0675      ,0720      ,9427     -,1284      ,1381

************************************************************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3722      ,1385      ,3805     6,0127     5,0000   187,0000      ,0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     3,1541      ,1901    16,5907      ,0000     2,7791     3,5291
Techno_o     -,1047      ,0460    -2,2758      ,0240     -,1954     -,0139
PWB           ,0084      ,0039     2,1284      ,0346      ,0006      ,0161
Extraver      ,1510      ,0524     2,8824      ,0044      ,0477      ,2544
Int_1        -,0020      ,0039     -,5248      ,6004     -,0096      ,0056
Age           ,0080      ,0036     2,2511      ,0255      ,0010      ,0151

Product terms key:
 Int_1    :        PWB      x        Extraver

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
M*W      ,0013      ,2754     1,0000   187,0000      ,6004


***************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,1047      ,0460    -2,2758      ,0240     -,1954     -,0139

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 Techno_o    ->    PWB         ->    Interact

   Extraver     Effect     BootSE   BootLLCI   BootULCI
     -,9236     -,0477      ,0222     -,0990     -,0111
      ,0764     -,0383      ,0189     -,0814     -,0074
      ,8264     -,0312      ,0264     -,0938      ,0108

      Index of moderated mediation:
              Index     BootSE   BootLLCI   BootULCI
Extraver      ,0094      ,0184     -,0286      ,0444

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

W values in conditional tables are the 16th, 50th, and 84th percentiles.

NOTE: The following variables were mean centered prior to analysis:
          Extraver PWB

WARNING: Variables names longer than eight characters can produce incorrect output
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variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Moderated mediation model - private techno-invasion and QI

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************
```

```
          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 14
    Y  : Interact
    X  : Techno_i
    M  : PWB
    W  : Extraver

Covariates:
 Age

Sample
Size:  190

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,2690      ,0724   152,2595     7,2950     2,0000   187,0000      ,0009

Model
              coeff         se          t          p       LLCI       ULCI
constant    10,2930     3,8514     2,6726      ,0082     2,6953    17,8908
Techno_i    -2,8424      ,7599    -3,7403      ,0002    -4,3415    -1,3432
Age          -,0489      ,0703     -,6963      ,4871     -,1875      ,0897

**************************************************************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3886      ,1510      ,3751     6,5476     5,0000   184,0000      ,0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     3,1795      ,1948    16,3218      ,0000     2,7951     3,5638
Techno_i     -,0930      ,0393    -2,3671      ,0190     -,1705     -,0155
PWB           ,0103      ,0037     2,7745      ,0061      ,0030      ,0177
Extraver      ,1494      ,0522     2,8638      ,0047      ,0465      ,2522
Int_1        -,0017      ,0039     -,4357      ,6636     -,0093      ,0059
Age           ,0071      ,0035     2,0254      ,0443      ,0002      ,0140

Product terms key:
 Int_1    :        PWB      x        Extraver

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
M*W      ,0009      ,1898     1,0000   184,0000      ,6636


***************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,0930      ,0393    -2,3671      ,0190     -,1705     -,0155

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 Techno_i    ->    PWB         ->    Interact

   Extraver     Effect     BootSE   BootLLCI   BootULCI
    -1,0271     -,0342      ,0169     -,0738     -,0081
      ,0829     -,0289      ,0129     -,0586     -,0083
      ,8329     -,0254      ,0172     -,0665      ,0016

      Index of moderated mediation:
              Index     BootSE   BootLLCI   BootULCI
Extraver      ,0048      ,0123     -,0192      ,0307

********************** ANALYSIS NOTES AND ERRORS ************************
```

```
Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

W values in conditional tables are the 16th, 50th, and 84th percentiles.

NOTE: The following variables were mean centered prior to analysis:
          Extraver PWB

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variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Moderated mediation model - private techno-complexity and QI

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 14
    Y  : Interact
    X  : Techno_c
    M  : PWB
    W  : Extraver

Covariates:
 Age

Sample
Size:  188

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3767      ,1419   141,4611    15,2943     2,0000   185,0000      ,0000

Model
              coeff         se          t          p       LLCI       ULCI
constant     9,5370     3,3821     2,8199      ,0053     2,8646    16,2094
Techno_c    -4,8450      ,8870    -5,4621      ,0000    -6,5949    -3,0950
Age           ,0534      ,0713      ,7493      ,4546     -,0873      ,1942

**************************************************************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3641      ,1325      ,3761     5,5613     5,0000   182,0000      ,0001

Model
              coeff         se          t          p       LLCI       ULCI
constant     3,0939      ,1783    17,3503      ,0000     2,7421     3,4457
Techno_c     -,0975      ,0494    -1,9755      ,0497     -,1949     -,0001
PWB           ,0083      ,0039     2,1317      ,0344      ,0006      ,0159
Extraver      ,1494      ,0520     2,8724      ,0046      ,0468      ,2521
Int_1        -,0015      ,0039     -,4003      ,6894     -,0092      ,0061
Age           ,0086      ,0037     2,3133      ,0218      ,0013      ,0159

Product terms key:
 Int_1    :        PWB      x        Extraver

Test(s) of highest order unconditional interaction(s):
```

```
       R2-chng          F        df1        df2          p
M*W      ,0008      ,1603     1,0000   182,0000      ,6894


****************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,0975      ,0494    -1,9755      ,0497     -,1949     -,0001

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 Techno_c    ->    PWB         ->    Interact

   Extraver     Effect     BootSE   BootLLCI   BootULCI
     -,9295     -,0470      ,0251     -,1060     -,0060
      ,0705     -,0395      ,0219     -,0909     -,0037
      ,8205     -,0339      ,0295     -,1011      ,0133

      Index of moderated mediation:
              Index     BootSE   BootLLCI   BootULCI
Extraver      ,0075      ,0196     -,0331      ,0453

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

W values in conditional tables are the 16th, 50th, and 84th percentiles.

NOTE: The following variables were mean centered prior to analysis:
          Extraver PWB

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variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```

Moderated mediation model - private techno-uncertainty and QI

```
Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 4.2 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2022). www.guilford.com/p/hayes3

**************************************************************************
Model  : 14
    Y  : Interact
    X  : Techno_u
    M  : PWB
    W  : Extraver

Covariates:
 Age

Sample
Size:  186

**************************************************************************
OUTCOME VARIABLE:
 PWB

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,0371      ,0014   158,9115      ,1262     2,0000   183,0000      ,8815

Model
```

```
              coeff         se          t          p       LLCI       ULCI
constant      ,8044     5,3285      ,1510      ,8802    -9,7088    11,3176
Techno_u      ,1699     1,0175      ,1670      ,8676    -1,8377     2,1775
Age          -,0346      ,0724     -,4775      ,6336     -,1775      ,1083

************************************************************************
OUTCOME VARIABLE:
 Interact

Model Summary
          R       R-sq        MSE          F        df1        df2          p
      ,3341      ,1116      ,3965     4,5245     5,0000   180,0000      ,0007

Model
              coeff         se          t          p       LLCI       ULCI
constant     2,9648      ,2664    11,1302      ,0000     2,4391     3,4904
Techno_u     -,0094      ,0508     -,1845      ,8538     -,1097      ,0909
PWB           ,0116      ,0038     3,0752      ,0024      ,0041      ,0190
Extraver      ,1388      ,0537     2,5863      ,0105      ,0329      ,2446
Int_1        -,0016      ,0040     -,4015      ,6885     -,0096      ,0063
Age           ,0070      ,0036     1,9166      ,0569     -,0002      ,0141

Product terms key:
 Int_1    :        PWB      x        Extraver

Test(s) of highest order unconditional interaction(s):
       R2-chng          F        df1        df2          p
M*W      ,0008      ,1612     1,0000   180,0000      ,6885


****************** DIRECT AND INDIRECT EFFECTS OF X ON Y *****************

Direct effect of X on Y
     Effect         se          t          p       LLCI       ULCI
     -,0094      ,0508     -,1845      ,8538     -,1097      ,0909

Conditional indirect effects of X on Y:

INDIRECT EFFECT:
 Techno_u    ->    PWB         ->    Interact

   Extraver     Effect     BootSE   BootLLCI   BootULCI
     -,9422      ,0022      ,0118     -,0201      ,0291
      ,0578      ,0019      ,0104     -,0175      ,0250
      ,8078      ,0017      ,0103     -,0173      ,0261

      Index of moderated mediation:
              Index     BootSE   BootLLCI   BootULCI
Extraver     -,0003      ,0039     -,0095      ,0077

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

Number of bootstrap samples for percentile bootstrap confidence intervals:
  5000

W values in conditional tables are the 16th, 50th, and 84th percentiles.

NOTE: The following variables were mean centered prior to analysis:
          Extraver PWB

WARNING: Variables names longer than eight characters can produce incorrect output
when some variables in the data file have the same first eight characters. Shorter
variable names are recommended. By using this output, you are accepting all risk
and consequences of interpreting or reporting results that may be incorrect.

------ END MATRIX -----
```