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In Search of Shared Leadership Antecedents: A Focus on Authenticity

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Master of Science in Social and Organizational Psychology

Supervisor:
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September, 2024

CIÊNCIAS SOCIAIS
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I dedicate this work to all those who, in one way or another, have supported and encouraged me on this journey.

Acknowledgments

I would like to express my deepest gratitude to those who have supported me throughout the journey of completing this dissertation. First and foremost, I would like to thank my mom to who I owe a special debt of gratitude to, whose tireless support has been the foundation of my academic journey. Your generosity and belief in me made this dissertation and my entire college experience possible. For your sacrifices and continuous encouragement, I am forever thankful.

A special thanks to my colleagues and peers, especially to my dear friend Marcela, whom I had the pleasure of meeting at the start of this master's program. Your support, companionship, and encouragement have been indispensable. From the various study sessions, group projects and in every moment of doubt, you've been by my side, and I truly couldn't have asked for a better friend on this journey.

I would also like to thank my friends and family for their support, patient, and encouragement and everyone that helped me gather all the information needed for this dissertation. Without you this project won't be possible.

Lastly, I am incredibly grateful to my supervisor, professor Nelson Ramalho, for his invaluable guidance, expertise and support. Your insightful feedback and knowledge have been instrumental in shaping this research, and I am deeply appreciative of the time and effort you dedicated to my work.

This dissertation would not be possible without the help, support and contributions of every single one of these people and I am sincerely grateful to each one of you.

Resumo

A complexidade organizacional tem realçado a importância da liderança partilhada, que é conhecida por contribuir positivamente para a performance organizacional. Contudo, a literatura ainda é escassa em relação aos seus antecedentes. Este estudo foi desenhado com o intuito de contribuir para colmatar esta lacuna na investigação atual.

Com uma amostra de 107 participantes, foi criado um modelo conceptual com base na teoria da Liderança Partilhada e nos seus conceitos metodológicos, envolvendo o efeito indireto do clima de autenticidade na liderança partilhada mediado pela segurança participativa, sendo também testado o efeito condicional das crenças de coprodução. Os resultados apoiam parcialmente o modelo conceptual, destacando o efeito indireto, mas os efeitos de interação demonstraram a necessidade de diferenciar entre comportamentos proativos direcionados para a equipa e comportamentos proativos direcionados para si próprio dentro do construto de liderança partilhada. Os resultados são discutidos à luz da teoria e são feitas sugestões quanto à sua relevância prática para as organizações.

Palavras-Chave: Liderança Partilhada, Autenticidade, Clima de Autenticidade, Segurança Participativa, Crenças de Coprodução, Orientações de Coprodução

Códigos de Classificação APA: 3600 Organizational Psychology & Human Resources; 3660 Organizational Behavior

Abstract

Organizational complexity has highlighted the advantages of shared leadership, which is known to positively contribute to organizational performance. Yet, literature has not fully uncovered the antecedents of such leadership. This study is designed to contribute to close this research gap.

With a sample of 107 employees a conceptual model based on Shared Leadership theory and its conceptual frameworks, entailing the indirect effect of authenticity climate on shared leadership via participative safety is tested under the boundary condition of coproduction beliefs. Findings partially support the conceptual model highlighting the indirect effect, but the interaction effects showed the need to differentiate between team directed and self-directed proactive behaviors within the shared leadership construct. Findings are discussed at the light of theory and suggestions made as to their applied relevance for organizations.

Keywords: Shared Leadership, Authenticity, Authenticity Climate, Participative Safety, Coproduction Beliefs, Coproduction Orientations

APA Classification Codes: 3600 Organizational Psychology & Human Resources; 3660 Organizational Behavior

Table of Contents

List of Tables and Figures

Introduction

Many leadership theories emphasize the shared nature of leadership (Doos & Wilhelmson, 2021) where team maturity is taken as an asset that releases resources the organization would otherwise have to use into controlling teams. Early examples of such theories as Alfred (1992), Kelly (1998) and Yukl (1998), suggest that leadership can manifest as a collective phenomenon within a group and that shared leadership may significantly influence group outcomes (Pearce & Sims, 2000). This view ended up advocating a followership mindset, from which the zenith may be observed in the Shared Leadership Theory (Pearce & Conger, 2003).

Although Shared Leadership Theory literature is rich on the consequences of this type of leadership (e.g. Bergman et al., 2012; Drescher et al., 2014; Gu et al., 2016) there is some scarcity of knowledge about its antecedents (Wu et al., 2020). Carson et al. (2007) proposed a specific organizational climate favorable to produce shared leadership. Based on Katz and Kahn (1978) the authors stated that two conditions were required for such climate to emerge: (1) team members must offer leadership and seek to provide direction, support and motivation to their coworkers, and (2) the team as a whole must be willing to rely on their coworkers' leadership. This conspicuous climate has not been named except for its composing dimensions: shared purpose, social support, and voice. However, we contend such environment matches one specific type of environment that was proposed by Grandey et al. (2012): authenticity climate.

Although there are various studies addressing shared leadership and authentic leadership, often indirectly discussing authenticity climate and individual authenticity, we did not find any research that explores the integration of shared leadership and authenticity climate. Only one study by Hannah et al. (2011) examines the relationship between authentic leadership and shared leadership, and the impact of authenticity on team well-being and performance. Thus, we think that there is a research gap in relating these constructs which is logical for us and would bridge two lines of research that have been separated.

By endeavoring to bridge these research lines, this study is expected to contribute to research on shared leadership, elaborating on its antecedents, to add authenticity climate as a novel antecedent. Second, we investigate the relationship between shared leadership and organizational beliefs, more specifically, coproduction beliefs. Thus, this study aims to answer the following research question: How does authenticity climate relate to shared leadership, and how does this process interact with coproduction beliefs?

To answer this question, this study develops a literature review that will sequentially focus on clarifying the constructs under analysis, namely shared leadership, authenticity climate, participative safety, and coproduction beliefs, to in-between explore how these have been theoretically linked to propose a conceptual model that establishes a moderated mediation effect. As we have opted to conduct a survey-based study with questionnaire, the method chapter ensues with presenting the procedure, sample, data analysis strategy, and measures alongside psychometric quality testing whenever suitable. The dissertation proceeds by showing results both descriptive and bivariate statistics as well as findings from the hypotheses testing. Finally, findings are discussed at the light of theory and both limitations and suggestions for future research are shown.

CHAPTER 1

Literature Review

This literature review will focus on the main constructs, conceptual definitions, and theoretical relationships that constitute the research problem of the conceptual model in this study. In this regard, the literature review will first address the key constructs and definitions of shared leadership and its relationship with authenticity climate, followed by the conceptual definition of team authenticity climate. Thereafter, the definition of participative safety and its relationship with the previous constructs will be presented, concluding with a brief review of organizational beliefs, specifically focusing on coproduction beliefs. Finally, a conceptual model will be introduced, coherently integrating all the hypotheses proposed for this study.

1.1. Shared Leadership

Historically, leadership theories have been focused on the individual, the leader, and how this individual commands, controls, inspires, attracts and guides followers (Pearce et al., 2009). In the early 2000's, some scholars and practitioners have challenged this conception, arguing that leadership encompasses roles and activities that can and should be shared among team or organization members (Pearce et al., 2009). Depending on the situation, an individual that was not formally appointed as the leader can step up and demonstrate leadership when needed and then step back at other times to let others lead (Pearce & Conger, 2003). Thus, leadership must not be confounded with leader, and leader is not a one-person matter. It is always a collective and dynamic phenomenon.

Shared leadership is the "dynamic, interactive influence process among individuals in groups for which the objective is to lead one another to the achievement of group or organizational goals or both" (Pearce & Conger, 2003, p.1). According to these authors, conversely to the traditional leadership models, where leadership is thought of as being centralized only in a single individual, in the shared leadership model, leadership is distributed among a set of individuals and this process involves peer, or lateral influence, and upward or downward hierarchical influence.

It has long been established in literature that team members that freely and actively share their influence with one another to achieve common goals, offer organizations a competitive edge by boosting commitment, enhancing the use of both personal and organizational resources on complex

tasks, encouraging receptiveness to mutual influence, and facilitating information sharing (Katz & Kahn, 1978).

Over the last few years, the need to establish shared leadership within work teams has been increasing and one of the main reasons being the highly competitive market (Eldor, 2020). The global and highly competitive market creates this demand, and according to Pearce and Conger (2003) and Pearce et al. (2009) this originates mainly from three factors: (1) the speed of response in a fast-paced environment that does not allow a decision to be pushed up to the top, reinforcing the need for leadership to be shared across the organization to provide faster response times; (2) the growing awareness that the highest-ranking leaders may lack the necessary and up-to-date information to make the most effective decisions in a rapidly evolving and complex environment; (3) the complexity of the job held by the CEO that demands this individual to possess a lot of leadership skills and the knowledge needed to guide the organization in the global market, challenging the organization to share the leadership at the top. In short, shared leadership mobilizes more collective resources to tackle the complexity and fast-reaction requirements of a globalized competitive market.

In the past decade, studies have highlighted the importance of identifying the behaviors that underpin shared leadership. Assuming that the nature of these behaviors is proactive, Muethel et al. (2012) identified two dimensions of shared leadership behaviors: team-directed proactive behaviors (PB-T) and self-directed proactive behaviors (PB-S). Team-directed proactive behaviors refer to the shared leadership activities that each team member directs toward the team itself. In other words, it is the level of social influence that a team member exerts on other members with the goal of maximizing the team's potential, considering how each member's work may be impacted by changes in the team environment (Muethel et al., 2012). In contrast, self-directed proactive behaviors refer to the shared leadership that each team member directs toward the area for which they are responsible. More specifically, these are the individual behaviors that each team member uses to adapt their work process and contributions to the surrounding environment. Through the feedback provided by the rest of the team, each member seeks to implement necessary adjustments to ensure their contributions are as aligned as possible with the team's overall work (Muethel et al., 2012).

Indeed, the assumed effectiveness of shared leadership gained empirical support. As reported in a study conducted by Pearce et al. (2014) findings showed that shared leadership has a greater impact in generating organizational and team effectiveness by encouraging creativity, influence and innovation expression among individuals and teams when the organization need the most such inputs. In a meta-analysis conducted by Wu et al. (2020), prior work has reported the positive influence of shared leadership on team outcomes, including team function (Bergman et al., 2012), team effectiveness (Chiu

et al., 2016; Wang et al., 2017), team creativity (Gu et al., 2016; Lee et al., 2015) and team performance (Fausing et al., 2015; Drescher et al., 2014; Muethel et al., 2012). Moreover, more recent research has been reinforcing Wu et al. (2020) findings by showing shared leadership, measured at group level, foster team creativity and team performance (Klasmeier & Rowold, 2020) but also better decision quality although mediated by decision comprehensiveness (Mayer et al., 2023). We therefore trust extant literature has been consistently demonstrating that shared leadership is positively related to different types of desirable team outcomes.

Given the importance of shared leadership in various types of team outcomes, specifically in team performance, and the importance given to study its consequences, identifying the antecedents that enable shared leadership is also essential. Wu et al. (2020) identified six categories of antecedents related to: formal team leader behavior (e.g. leader humility, empowering leadership), the team heterogeneity (demographic diversity, team demographics, team diversity), the nature of the tasks (task interdependence and task ambiguity), the enabling attitudes (psychological empowerment), team climate (internal team environment), and perceived equity (fair rewards). The meta-analysis showed that only team heterogeneity and team internal environment are significantly related to the emergence of shared leadership.

Indeed, team internal environment has been early proposed as an important antecedent of shared leadership. Namely, Carson et al. (2007) considered that this specific organizational climate is one of the key factors for the emergence of this type of leadership, based in two conditions: mutual support and influence (internal team environment) and team members motivation to share leadership. In order for this to happen, team members need to trust, influence and accept each other. According to these authors, shared leadership is influenced by internal factors, the internal team environment, and external factors, by an external leader's coaching (Carson et al., 2007). As regards internal factors, team environment is formed by three different dimensions (Carson et al., 2007). These three dimensions are: (1) shared purpose, exists when the team members are focused on team goals and adopt measures in order to achieve collective goals, creating a common sense of purpose; (2) social support, refers to the effort that team members make to emotionally support one another, by encouraging each other and recognizing each individual's and the team's contributions, thus creating an atmosphere where all team members feel validated; (3) and voice, defined by the degree in which team members help to achieve collective goals, promoting social influence (Carson et al., 2007). These authors reported a positive relationship between shared leadership and the internal team environment, suggesting that a supportive team environment is a critical antecedent for the development of shared leadership. We consider that this type of environment matches a type of environment proposed by Grandey et al. (2012): authenticity climate.

1.2. Authenticity Climate

With an increasingly global and competitive market, the work environment has grown increasingly interdependent (Griffin et al., 2007). This shift has heightened the need for building more effective work teams and this is the original rationale that supported shared leadership as a desirable leadership dynamic in organizations. However, this very same rationale has been mobilized to sustain the positive effects originating from nurturing specific team environments such as the one studied by Carson et al. (2007) and that closely matches the whole idea of authenticity.

Several studies have shown that authenticity is positively associated with employee well-being (Grandey et al., 2012; Emmerich et al., 2020; van den Bosch & Taris, 2014[2]). These authors have shown that authenticity experienced within teams contributes to greater job satisfaction, enhanced work engagement, and improved performance, while simultaneously reducing emotional exhaustion and the risk of burnout. Therefore, it is crucial to understand how an individual's experience of authenticity can impact both their own well-being and the dynamics and effectiveness of the team.

Literature on authenticity primarily focused on the individual-level phenomenon (e.g. Kernis & Goldman, 2006; Wood et al., 2008), that concerns the effects that individual authenticity has on the individuals themselves. However, research shifted the focus to investigate how an individual's authenticity impacts those around them, i.e. teammate authenticity. Emmerich et al. (2020) reasoned that the teammate authenticity can facilitate various intra and interpersonal processes, such as increased mutual trust and greater access to resources and found it relates positively to work engagement, and negatively to emotional exhaustion. Likewise, Cha et al. (2019) found that an authentic team environment enables individuals to work with great security and discretion, receiving honest feedback, and acting as a valuable resource and source of support.

There are several reasons that explain the relationship between team authenticity and increased self-authenticity, enhanced engagement, and decreased emotional exhaustion (Grandey et al., 2019). An authentic individual has the ability to understand and reflect on their own values and beliefs, as well as the ability to accept that their values and beliefs may not always be acceptable or possible in certain contexts or to a certain group of individuals (Meyerson, 2003).The psychological conceptions of authenticity are based on a combination of high self-knowledge, which includes self-awareness and the motivation to share ones' knowledge with others, and behavioral expressions that are consistent within the individual, that is when an individual acts in accordance with their beliefs, values and needs (Emmerich et al., 2020). In this way, we believe that in order to establish shared leadership within a work team, there needs to exist an authenticity climate shared between the members of the team.

Without team authenticity climate team members are not willing to accept the influence of other members.

Teams tend to vary in the extent to which authentic emotional expressions between group members are encouraged and supported. Grandey et al. (2012) conceptualize authenticity climate as the perceived acceptance and respect of their team members emotional expressions when interacting with one another. In this sense, a work team with high authenticity climate values and encourages emotional expressions (including negative emotional expressions), while work teams with low authenticity climate may feel discomfort and discourage this type of emotional expression (Grandey et al., 2012). This authenticity climate is based on the conceptualization of psychological safety (Edmondson, 1999), but instead of focusing primarily on risk taking, it expands the psychological safety literature by focusing on employee outcomes.

Currently, the existential nature of authenticity remains ambiguous. Some researchers conceptualize authenticity as a trait-based phenomenon, viewing it as a stable and enduring characteristic, as against other scholars that consider authenticity as a state-based concept, wherein it is seen as the result of the congruence between the individual and their work environment, in other words, greater congruence between the work environment and an individual's authenticity leads to a stronger sense of authenticity (van den Bosch & Taris, 2014)[2]. Consistent with the perspective of van den Bosch and Taris (2014)[1], our study conceptualizes authenticity as a mutable state that evolves over time and is influenced by the authenticity of other team members.

As noted, we consider that one of the predictors of shared leadership identified by Carson et al. (2007), namely the internal team environment, aligns with the concept of authenticity climate as defined by Grandey et al. (2012). We further propose that this internal team environment may also serve as an antecedent to the emergence of shared leadership. We thus hypothesize that:

H1: Authenticity Climate has a direct positive effect on shared leadership.

To reflect the most recent conceptualization of shared leadership that distinguishes self-directed proactive behaviors from team-directed proactive behaviors (Muethel et al., 2012) we split this hypothesis into two sub-hypotheses as follows:

H1a: Authenticity Climate has a direct positive effect on shared leadership PB-T.

H1b: Authenticity Climate has a direct positive effect on shared leadership PB-S.

This direct relationship is plausible although Authenticity Climate is an emergent state that cannot *per se* replace the individual psychological variables such as attitudes towards team interaction.

Therefore, the model that connects team authenticity climate to shared leadership may benefit from exploring possible intervening variables, that better explain the process. Among these variables the most promising is participative safety. This construct is perfectly aligned with the reasoning of Mould (2023) and Grandey et al. (2012) that authenticity's positive outcomes stem from individuals' perception that they can be true to themselves and do not need to shield themselves from other's people expectations.

1.3. The Role of Participative Safety

Participative safety was firstly introduced by West (1990) with his four-factor theory of innovation, arguing that group innovation results from four distinct characteristics: vision, task orientation, support for innovation, and participative safety. Participative safety was defined as a psychological framework where the conditions are set up so that people are encouraged and supported to participate in decision-making, all within a setting that feels safe and non-threatening in terms of interpersonal interactions (Kivimaki & Elovainio, 1999). In other words, a work environment characterized by participative safety allows team members to contribute with ideas, fostering discussion and work processes (Bradley et al., 2012). Additionally, the sense that individuals can share their ideas with their team without facing negative consequences or criticism fosters their sense of responsibility, leading them to take on an informal leadership role (Carvalho et al., 2020).

Such informal leadership role-taking matches the dynamics underlying shared leadership, which has been empirically reported as a consequence of participative safety (Carvalho et al., 2020). This has long been thought as Vries (1999) pointed out a favourable organizational climate is one of the key factors for the emergence of shared leadership. Likewise, Fletcher and Kaufer (2003) also stated that shared leadership requires a trusting, positive, and collaborative environment where team members also demonstrate empathy towards one another.

Considering the advantages of participative safety, research endeavors took place to map its antecedents. Within these efforts, authenticity climate emerged as a possible predictor of participative safety. Both concepts are rooted in the psychological safety theory (Edmondson, 1999), which is the belief that a member of a team can express their ideas and opinions without been humiliated or punished by their teammates. On one hand, participative safety directly refers to the environment where individuals feel safe to participate in decision-making without facing criticism (Kivimaki & Elovainio, 1999). On the other hand, authenticity climate involves a setting where members of a team feel accepted and respected for their genuine emotional expressions (Grandey et al., 2012). Thus, focusing on reducing interpersonal threats and encouraging open communication.

The commonalities between both constructs do not necessarily imply that one precedes the other but organizational climate, as a group level construct that permeates all social interaction in organizations, is expected – from a psychosocial viewpoint – to influence the individual perceptions and behaviors of organizational members. Therefore, authenticity climate should precede participative safety in a plausible causal nexus.

In conclusion, being truth to oneself is a requisite to fully participate without the need to disguise or fear punishment from teammates or supervisors, regarding their social judgment about the appropriateness of the participation and its contents. This "truthfulness to oneself" is the core of authenticity climate, and therefore, it facilitates the unreserved participation in a trustful environment, where the most innovative possibilities are not hampered by fears of rejection. We thus hypothesize that:

H2: Authenticity Climate has an indirect positive effect on shared leadership via participative safety.

> *H2a: Authenticity Climate has an indirect positive effect on shared leadership PB-T via participative safety.*
>
> *H2b: Authenticity Climate has an indirect positive effect on shared leadership PB-S via participative safety.*

All this process occurs within the larger organizational context characterized, among other dimensions, by its cultural values. Organizational culture emerged as a critical dimension that has been extensively studied ever since its popular diffusion in organizational research in the early 1980s (e.g. Schein, 1984; Schein, 1985; Quinn, 1984; Quinn, 1988). It is treated as a root cause of most of organizational phenomena thus capturing the deep symbolic nature of social interaction that provides meaning and guides individual decision making in an effortless way. However, literature has pointed out that not only does one organization entails many organizational subcultures (Martin, 1992) and the specific type of culture [e.g. innovation versus rules culture (Quinn, 1988)] determines contrasting effects. Still, cultural artifacts, norms, values and beliefs permeate all organizational life (Schein, 2004). One of the most explored streams in organizational culture research focuses on how cultural values and beliefs foster innovation (Hartl & Hess, 2017).

1.4. The Role of Coproduction Beliefs

A belief expresses a stable proposition that is resistant to change, varies as regards the strength of its assertion, guides goals and behavioral choices (Walton, 2011), and is emotionally charged with a plausible collective background (i.e. a set of shared beliefs) that tends to anchor such belief in a system

of beliefs. Within organizations, hierarchy is an almost universal feature and cultural beliefs underlying this organizational structural feature tend to highlight the active role of those who stand on upper positions (i.e. leaders) and the passive role of those who stand on lower positions (i.e. followers). The naming itself in literature (leader-follower) entails this sort of assumption about who should take initiative, who should decide, who should condition others' options. The obvious answer is "the leader".

However, the acknowledgement that followers do have a saying in how things evolve in organizations, under a followership viewpoint (Shamir, 2007), open way to think of organizational culture as reversing the values and beliefs traditionally taken as effective in a hierarchy. Instead of fostering the belief that organizations or teams have one decision-maker that guides the collective, culture should be recognized as fostering the belief that such decisions are made collectively (if not explicitly, at least tacitly) and therefore, it is more favorable to organizations, if such co-production or co-decision processes are institutionalized.

Literature has been naming such beliefs as "Coproduction Orientation". According to Carsten and Uhl-Bien (2012) coproduction orientation matches the belief that followers should actively participate and engage with their leaders to enhance the effectiveness of their work unit. Coproduction involves negotiating and adapting to the ideas of other team members to achieve desired outcomes through the delivery of a co-produced service (Schlappa & Imani, 2018).

Coproduction beliefs are not merely neutral tools for enhancing organizational effectiveness but are deeply intertwined with ethical considerations. These beliefs challenge the traditional hierarchical notion of leadership by promoting the idea that both leaders and followers share responsibility in decision-making processes (Payne, 2023). This concept aligns with ethical followership (Payne, 2023), which emphasizes the active role of followers in influencing ethical behaviour and outcomes within organizations (Uhl-Bien & Carsten, 2014). By engaging in coproduction, followers are seen not just as passive recipients of decisions but as active partners who co-create leadership outcomes (Carsten & Uhl-Bien, 2013). This perspective reinforces that ethical decision-making should be a shared responsibility, aligning with Price's (2020) argument that ethical leadership must respect the autonomy of both leaders and followers.

Moreover, the ethics of participation (Cludts, 1999) suggests that followers have a moral duty to voice their opinions, particularly in group discussions or ethical dilemmas. Remaining silent in such contexts is not just a missed opportunity but a violation of this ethical obligation, as it undermines the collective decision-making process (Shamir, 2007). Rost (1991) also supports this view, arguing that leadership should enhance the autonomy and value of all individuals involved. Therefore, coproduction beliefs carry an ethical imperative: followers must actively engage and contribute to ensure decisions

are made collectively and ethically (Payne, 2023). This aligns with Schon's (1983) concept of reflective practice, where critical evaluation of assumptions and ethical standards helps ensure integrity and effectiveness in the organization.

The leadership of the coproduction process is related to meaning-making, persuasion, and negotiation between a leader and their subordinates. Coproduction leadership is a shared responsibility among all team members to achieve a specific outcome (Schlappa & Imani, 2018). Still, one needs to differentiate between coproduction beliefs (which is a construct that lies at the basis of individual behavior) and shared leadership (which is a pattern of behaviors within a group). In this regard, shared leadership theory, which conceptualizes leadership as a process distributed among team or organizational members, is consistent with the principles of coproduction, which should facilitate its emergence. We thus hypothesize that:

H3: Coproduction Beliefs interact with Participative Safety in explaining Shared Leadership in such a way that the higher the Coproduction Beliefs, the stronger the direct effect.

> *H3a: Coproduction Beliefs interact with Participative Safety in explaining Shared Leadership PB-T in such a way that the higher the Coproduction Beliefs, the stronger the direct effect.*
>
> *H3b: Coproduction Beliefs interact with Participative Safety in explaining Shared Leadership PB-S in such a way that the higher the coproduction beliefs, the stronger the direct effect.*

Considering the motivation for the precedent hypotheses, namely the second and the third, we reason the boundary condition established by coproduction beliefs is extensive to the proposed mediation thus creating a moderated mediation effect. We then hypothesize that:

H4: There is a conditional mediation effect of Coproduction Beliefs in interaction with Participative Safety as a mediator between Authenticity Climate and Shared Leadership.

> *H4a: There is a conditional mediation effect of Coproduction Beliefs in interaction with Participative Safety as a mediator between Authenticity Climate and Shared Leadership PB-T.*
>
> *H4b: There is a conditional mediation effect of Coproduction Beliefs in interaction with Participative Safety as a mediator between Authenticity Climate and Shared Leadership PB-S.*

In order to integrate the four hypotheses proposed for this study, Figure 1.1. represents the conceptual research model.

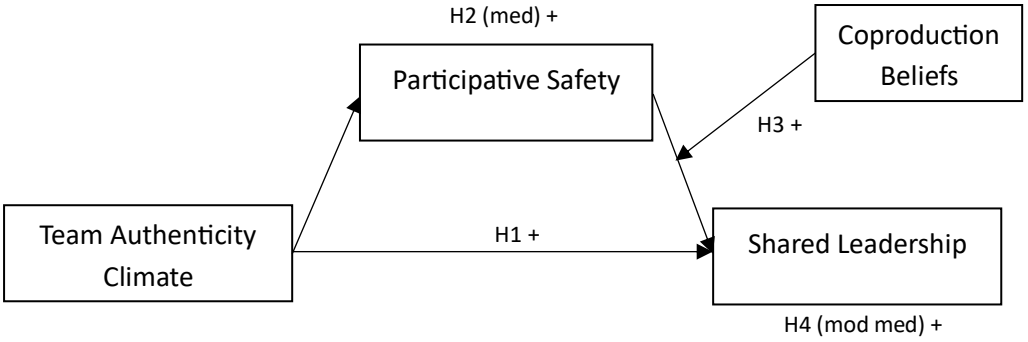

Figure 1.1. – Conceptual Model

CHAPTER 2

Method

This chapter comprehends a description of the procedure, sample, the data analysis strategy, and the measures used to empirically test the conceptual model.

2.1. Procedure

This research deploys a cross-sectional study of a quantitative nature with primary data collected via Qualtrics software. A link to the online survey (see Appendix A) was sent to individuals as well as shared on social media platforms, such as LinkedIn, Facebook, and Instagram to diversify and recruit a bigger sample. An informed consent following the ISCTE – Instituto Universitário de Lisboa ethics commission, stating the study was voluntary, anonymous, and confidential was displayed in the beginning. The participants could then leave the study at any time. Finally, data collection and processing were carried out using IBM SPSS Statistics version 29.0.

2.2. Sample

The sample comprises 107 individuals, actively employed, working in teams, and has an average age of 40.7 years old (SD=12.6) ranging from 20 to 65 years old. The sample mostly comprises female respondents (75.8%) and is educated (81.1% has college of above degree) and working in teams with an average size of 14 (SD=39) and working in such team from 1 to 35 years (M=10.4, SD=9.9).

2.3. Data Analysis Strategy

Data was analyzed with PROCESS Macro from SPSS (Hayes, 2020) which deploys a path analysis that enables us to test the direct and indirect effects designed in the conceptual model. Beforehand, following recommendations from Hair et al. (2019) psychometric quality was assessed with exploratory factor analysis, principal components analysis, which should attain a KMO of at least .500 (or the average MSA values) and a significant Bartlett's chi-square statistic to be considered valid. Additionally, item loadings should fall in qualitatively logical components, and it should account for at least 60% total variation. Whenever the exploratory factor analysis extracts more than a single factor, we applied a varimax rotation to gain clear reading of each factor composition. As regards convergent validity, factors should have an average extracted variance (AVE) of at least .500, and additionally each one of these

factors should be internally consistent, i.e. reliable, which means the Cronbach alpha should be at least .70.

2.4. Measures

Team Authenticity Climate was measured with Grandey et al. (2012) scale comprising seven items, organized in one factor. The principal components analysis showed a solution containing two items with too low commonality. After removal of these items, a single factor valid solution was found (KMO=.800, Bartlet's $X^2(10)=218.938$, $p<.001$), that accounts for 61.7% total variance, and which has both acceptable convergent validity (AVE=.617) as well as reliability (Cronbach alpha=.840). Table 2.1. shows the factor loadings.

Table 2.1 – Component Matrix for Team Authenticity Climate

	Team Authenticity Climate
1. If you show anxiety or distress with this team, it is held against you. (rev)	.740
2. Members of this team are able to discuss how they feel about problems and issues.	.750
3. People in this team reject others for showing irritation or frustration in the team. (rev)	.749
4. It is safe to show how you really feel with this team.	.833
7. Working with members of this team, expressions of feelings are respected.	.848

Extraction Method: Principal Component Analysis.
a. 1 components extracted.

Shared Leadership was measured with Muethel et al. (2012) scale that comprises seven items distributed by two factors: (1) Team-Directed Proactive Behaviors (PB-T) (four items, e.g. "All team members initiated actions to bring out improved procedures for the team.") and (2) Self-Directed Proactive Behaviors (PB-S) (three items, e.g. "All team members asked other team members for advice"). The principal component analysis converged with the original structure by showing a valid two-factor solution (KMO=.840, Bartlet's $X^2(21)=521.463$, $p<.001$), where all items have commonalities above .500, and after Varimax Rotation, the variance accounted is 80%. The first factor comprises the expected four items and has both convergent validity (AVE=.733) and good reliability (Cronbach alpha=.936). The second factor comprises the expected three items and has also both convergent validity (AVE=.696) and good reliability (Cronbach alpha=.817). Table 2.2. shows the factor loadings (after Varimax rotation).

Table 2.2 – Component Matrix for Shared Leadership

	Component	
	PB-T	**PB-S**
1. All team members initiated actions to bring out improved procedures for the team.	**.920**	.158
2. All team members proactively instituted new work methods to improve team performance.	**.911**	.202
3. All team members proactively made constructive suggestions for improving how things operate within the team.	**.799**	.381
4. All team members initiated actions to make the team more effective.	**.855**	.374
5. All team members asked other team members for advice.	.142	**.834**
6. All team members sought information from other team members about external influences that could affect their own work.	.320	**.834**
7. All team members sought information from other team members about aspects of their work accomplishment that could affect their own work.	.278	**.783**

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 3 iterations.

Participative Safety was measured with Kivimaki and Elovainio (1999) scale comprising four items as follows: (1) "We are together attitude", (2) "People keep each other informed", (3) "People feel understood" and (4) "Real attempts to share information". The principal component analysis showed a valid solution (KMO=.802, Barlett's $X^2(6)=264.552$, $p<.001$), where all items have communalities above .800, and accounting for 77.8% total variance. This solution has good convergent validity (AVE=.755) as well as reliability (Cronbach alpha=.904). Table 2.3. shows the factors loading.

Table 2.3 – Component Matrix for Participative Safety

	Participative Safety
1. We are together attitude.	.836
2. People keep each other informed.	.888
3. People feel understood.	.882
4. Real attempts to shared information.	.921

Extraction Method: Principal Component Analysis.

Coproduction Orientation was measured with Carsten and Uhl-Bien (2012) five-item scale. A principal component analysis showed a good solution but with two items having unacceptable commonalities. After their removal, a valid solution was found (KMO=.699; Bartlett's $X^2(3)=89.454$, $p<.001$) for the remaining three items (i.e. (1) "Followers should be on the lookout for suggestions they can offer to superiors."; (2) "Followers should proactively identify problems that could affect the organization."; (4) "Followers should be proactive in thinking about things that could go wrong."), with all items having commonalities above .500, and accounting for 70.7% total variance. This solution has good convergent validity (AVE=.685) as well as reliability (Cronbach alpha=.792). Table 2.4. shows the factors loading.

Table 2.4 – Component Matrix for Coproduction Orientation

	Coproduction Orientation
1. Followers should be on the lookout for suggestions they can offer to superiors.	.815
2. Followers should proactively identify problems that could affect the organization.	.866
4. Followers should be proactive in thinking about things that could go wrong.	.841

Extraction Method: Principal Component Analysis.
a. 1 components extracted.

CHAPTER 3

Results

3.1. Descriptive and Bivariate Statistics

Participants depicted their teams as having a high authenticity climate (M=4.34, SD=.83) where there is a moderately high feeling of participative safety (M=3.57, SD=.91). There is a strong feeling of coproduction beliefs (M=5.21, SD=.56). Shared leadership is relatively medium in both dimensions with PB-T reaching on the average 3.58 (SD=.98) and PB-S reaching 3.53 (SD=83).

As regards bivariate statistics, the sociodemographic variables have almost an absent level of significant correlations with those variables in the model. The only exception is observed for coproduction beliefs that have modest negative correlations with age ($r=-.235$, $p<.05$), team tenure ($r=-.247$, $p<.05$) and team size ($r=-.220$ $p<.05$). Coproduction beliefs are then apparently stronger in younger participants working in smaller teams.

Authenticity climate has abundant and strong correlations with all the variables in the model to the exception of coproduction beliefs. The strongest cases are observed with participative safety ($r=.746$ $p<.01$) with the remaining also of considerable magnitude (with shared leadership PB-T $r=.572$ $p<.01$; and PB-S $r=.552$ $p<.01$). This encourages the model that takes authenticity climate as an antecedent of such variables, especially because the moderator variable (coproduction beliefs) is not associated with the predictor.

As the expected mediator variables, psychological safety and participative safety are also significantly and strongly correlated with the dependent variable (minimum correlation is .670, $p<.01$) which encourages its expected role as it is also correlated with the predictor, as stated. Lastly, coproduction beliefs is not correlated with any of the variables in the model thus reinforcing the plausible moderator role that has been reasoned for this variables. Overall, the bivariate patterns encourage the conceptual model as hypothesized.

Table 3.1 – Descriptive and Bivariate Statistics

	Mean	SD	1	2	3	4	5	6	7	8	9
1. Age	40.7	12.6	1								
2. Gender FM	-	-	.046	1							
3. Education	3.02	.67	-.101	-.220	1						
4. TeamTenure	10.36	9.9	.644**	.117	-.251**	1					
5. Team size	13.93	38.6	.144	-.081	-.025	.247*	1				
6. AutClim(1-5)	4.34	.83	-.038	-.042	.032	-.129	.073	1			
7. SL_PBT (1-5)	3.58	.98	-.037	-.016	-.031	-.055	-.028	**.572****	1		
8. SL_PBS (1-5)	3.53	.83	-.070	-.120	.021	-.116	-.040	**.552****	.562**	1	
9. ParSaf (1-5)	3.57	.91	-.032	-.002	-.064	-.043	.036	**.746****	**.670****	**.670****	1
10. CoProd(1-6)	5.21	.56	**-.235***	.095	.047	**-.247***	**-.220***	.065	.122	.123	.087

*p<.05, **p<.01

3.2. Hypotheses Testing

Hypotheses were tested with Process Macro, namely model 14 that depicts the exact moderated mediation model corresponding to the conceptual model under scrutiny. As the dependent variable splits in two dimensions, this analysis was conducted twice as process does not allow testing two dependent variables simultaneously (see Appendix B and Appendix C).

The **first hypothesis** proposed that team authenticity climate is positively associated with shared leadership. Because shared leadership entails two dimensions (PB-T and PB-S), this hypothesis was divided in two corresponding sub-hypotheses. Findings for shared leadership PB-T showed a non-significant association (B=.213, 95% CI [-.081;.506]) thus not supporting H1a. Findings for shared leadership PB-S showed also a non-significant association (B=.097, 95% CI [-.128;.322]) thus not supporting H1b. Overall, these findings **do not support H1**.

The **second hypothesis** proposed that team authenticity climate has an indirect positive effect on shared leadership via participative safety. Findings for shared leadership PB-T showed a positive and significant association (B=.000, 95% CI [.256;.700]) thus **supporting H2a**. Findings for shared leadership PB-S showed a positive and significant association (B=.000, 95% CI [.232;.614]) thus **supporting H2b**. Overall, these findings **support H2**.

The **third hypothesis** proposed that coproduction beliefs interact with participative safety in explaining shared leadership in such a way that when the coproduction beliefs is high, the effect is stronger. Findings for shared leadership PB-T showed a non-significant association (B=.165, 95% CI [-.104;.434]) thus **not supporting H3a**. Findings for shared leadership PB-S showed a positive and significant association (B=.214, 95% CI [.007;.420]). As depicted in Figure 3.1. below, the slope for the relationship between participative safety and shared leadership PB-S is higher when coproduction

beliefs are high, and lower when coproduction beliefs are also low. This **supports H3b**. Interestingly, the direct effect is always significant irrespective of the level of coproduction beliefs as for low coproduction belief the direct effect is .324 (BootSE=.128) and with the 95% CI [.0647; .5725], and for high coproduction beliefs the direct effect is .541 (BootSE=.098) with the 95% CI [.3303; .7164].

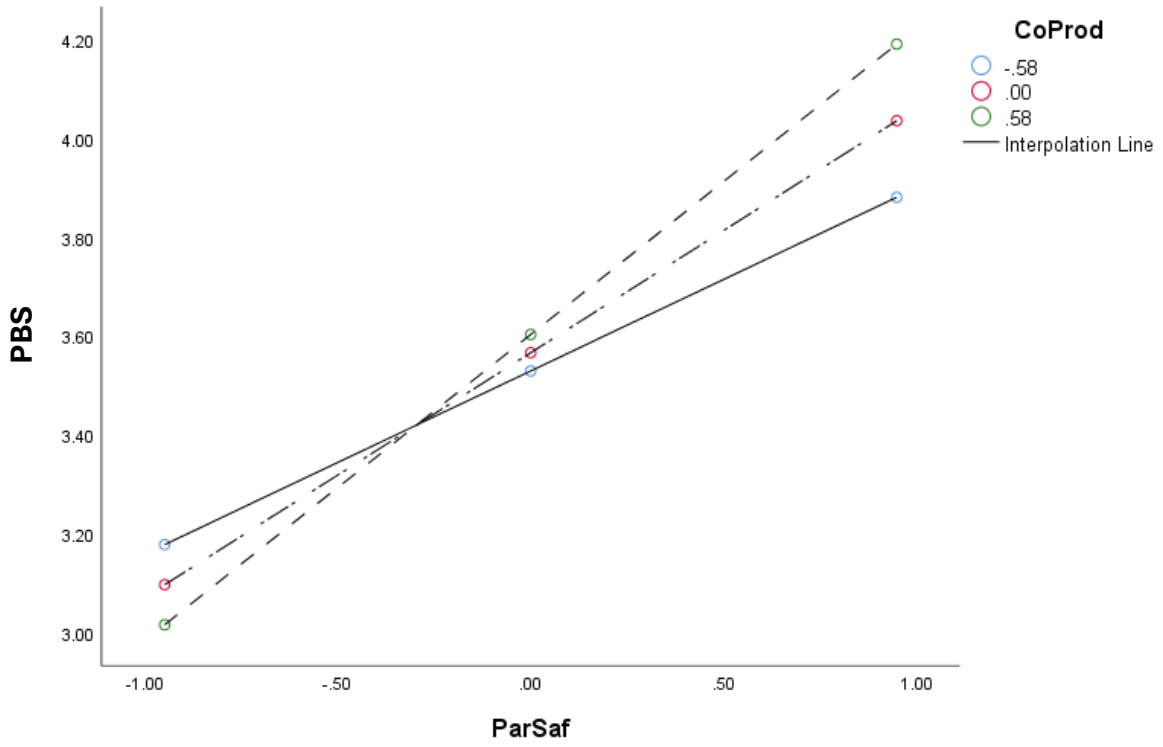

Figure 3.1. – Moderation CP*PS->SL_PBS

The **fourth hypothesis** proposed a conditional mediating effect of coproduction beliefs in interaction with participative safety as a mediator between team authenticity climate and both dimensions of shared leadership. This interaction is expected to follow the same rationale of the previous hypothesis thus expecting to find stronger indirect effects when coproduction beliefs are higher. Findings for shared leadership PB-T showed a positive and non-significant association (B=.144, 95% [-.062;.532]) **thus not supporting H4a**, and findings for shared leadership PB-S showed also a non-significant association (B=.187, 95% CI [-.043;.365]) thus **not supporting H4b**. Overall, these findings **do not support H4**. Interestingly, if the confidence interval is set to 90%, H4a and H4b would be supported.

Table 3.2 – Direct, Indirect and Conditional Effects

	Participative Safety (med)			Shared Leadership PB-T (VD1)				Shared Leadership PB-S (VD2)			
	B (se)	t	95% CI	B (se)	t	95% CI	HH	B (se)	t	95% CI	HH
Control var.											
constant	-3.416(.551)	-6.196	[-4.51; -2.32]	2.624(.819)	3.205	[.997;4.250]		3.256(.627)	5.196	[2.012;4.504]	
Age	-.005(.006)	-.711	[-.017;.008]	.001(.008)	.086	[-.015;.017]		.001(.006)	.185	[-.011;.013]	
Gender	.010(.152)	.068	[-.291;.312]	-.010(.191)	-.053	[-.391;.371]		-.162(.147)	-1.102	[-.454;.130]	
Education	-.100(.096)	-1.048	[-.290;.090]	.003(.192)	.027	[-.234;.241]		.034(.092)	.373	[-.148;.216]	
Team Tenure	.008(.009)	.911	[-.009;.025]	.002(.011)	.172	[-.020;.025]		-.005(.008)	-.588	[-.021;.012]	
Team Size	-.001(.002)	-.467	[-.004;.003]	-.001(.002)	-.481	[-.005;.003]		-.001(.002)	-.518	[-.004;.002]	
Direct effects											
Authen. Clim	.874(.077)	11.416	[.722;1.026]	.213(.148)	1.441	[-.081;.506]	H1a	.097(.113)	.855	[-.128;.322]	H1b
Particip. Safety				.547(.130)	4.203	[.288;.805]		.495(.100)	4.970	[.297;.693]	
Coproduction				.122(.145)	.846	[-.165;.410]		.063(.111)	.571	[-.157;.283]	
Indirect effect											
AC-PS-PBT				.001		[.256;.700]	H2a				
AC-PS-PBS								.001		[.232;.614]	H2b
Conditional direct effects											
CB*PS-PBT				.165(.135)	1.217	[-.104;.434]	H3a				
CB*PS-PBS								.214(.104)	2.059	[.007;.420]	H3b
Conditional indirect effects											
AC-(CB*PS)-PBT				.144(.154)		[-.062;.532]	H4a				
AC-(CB*PS)-PBS								.187(.103)		[-.043;.365]	H4b
R^2	59.1%			47.4%				52.5%			

CHAPTER 4

Discussion and Limitations

The present study aims to contribute to extend the literature on shared leadership, particularly regarding its antecedents, an area that remains relatively underexplored. Through this research, we seek to investigate whether authenticity climate may serve as an antecedent for the emergence of shared leadership within teams.

Our study examined whether participative safety mediates the relationship between authenticity climate and shared leadership. The results indicate that the direct effect of authenticity climate on shared leadership was not statistically significant (H1). However, a significant indirect effect was found through participative safety, suggesting that the relationship between authenticity climate and shared leadership operates primarily through participative safety (H2).

Studies conducted by Carson et al. (2007) and Wu et al. (2020) have demonstrated that the internal team environment is positively correlated with shared leadership. That is, when a team's climate is characterized by a clear and well-understood direction, strong interpersonal support, and a high level of encouragement among team members, a specific type of leadership tends to emerge where responsibilities are shared, and team members mutually influence one another (Carson et al., 2007). Based on the assumption that the internal team environment corresponds to the authenticity climate proposed by Grandey et al. (2012), we hypothesized that it would also have a direct effect on shared leadership. However, the results of our study suggest that participative safety serves as a critical pathway through which authenticity climate influences shared leadership. The lack of a significant direct effect suggests that authenticity climate alone is not sufficient to affect shared leadership without the presence of participative safety.

Research conducted by Carvalho et al. (2020) showed that participative safety is positively associated with the development of shared leadership, concluding that an organizational climate characterized by trust, clear and effective communication, mutual support, and active participation is essential for its emergence. These findings are consistent with the concept of authenticity climate, which refers to the shared perception of the extent to which individuals can express their emotions, particularly negative emotions, within their team without fear of judgment from other members (Grandey et al., 2012). Our study results further support this idea, identifying authenticity climate as an antecedent of participative safety, which, in turn, mediates the relationship between authenticity

climate and shared leadership. Thus, supporting the idea that a non-threatening and supportive team environment, that values open communication and trust is necessary for shared leadership to emerge.

Findings pertaining to the H3 suggest that Muethel et al. (2012) distinction between team-directed proactive behaviors and self-directed within shared leadership is fully justified. The moderation is observed with PB-S but not in PB-T. This difference may be explained by the comparative nature of PB-T, PB-S and coproduction beliefs, as regards pro-social behavior. Both PB-T and coproduction beliefs share the underlying focus on pro-social or collective primacy which renders them somewhat overlapping. This redundancy (not in the construct but in its focus on individual versus collective) may explain why the interaction is absent. Still, bivariate statistics indicate no significant correlation between these variables. Another explanation lies in the fact that PB-T scale comprehends items that express the initiation of activities, and this is perfectly aligned with coproduction beliefs in the sense that those who rate high in these beliefs should lead to initiate action according to the proactive motivation theory (Parker et al., 2010). Conversely, the PB-S scale comprehends items that express the search for information or asking other team members. This is also a proactive behavior but more in line with taking resources from others, and not so much in line with coproduction beliefs that highlight more a "giving" instead of "taking". The contrast may offer a required balance to take the initiative to search for information or directly ask advice when one feels it is safer to participate.

The findings differentiating between PB-T and PB-S interaction with coproduction beliefs would logically extend to the H4, where the moderation could most likely change the indirect effects found in H2. However, such was not the case and both moderated mediation effects were rendered non-significant. This can be interpreted as stemming from the magnitude of the composing effects (the indirect and the interaction), which are not sufficiently large to reach statistical significance. This might be also attributable to the sample size ratio to estimates parameters, although deploying a bootstrapping procedure would mitigate this but stronger power would most likely require a much larger sample. This calls attention to the limitations of this study that will be further detailed below.

4.1. Limitations and Future Directions

The present dissertation has several limitations that need to be considered for future studies. First, one of the limitations of this study was the relatively small sample size. The use of a limited number of participants may restrict the generalizability of the findings to the larger population. It is important to consider this limitation when interpreting the results and applying them to broader contexts.

Second, it would be beneficial for this research to be conducted from a multilevel perspective, instead of just focusing on the individual level. In order to proper study a team phenomenon, it is

important to study shared leadership at team-level, since shared leadership is the result of the distribution of leadership influence across team members (Carson et al., 2007). Although the individual-level is the prior unit to our analysis of authenticity climate, since we focus mainly on the individual perceptions, both the individual and team level should be considered in the future. Unfortunately, due to lack of time and resources we could only study shared leadership and authenticity climate on the individual level and would be interesting to replicate this study as a multilevel analysis.

Third, in future research it would be important to study causality. Shared leadership is an emergent phenomenon and it is important to understand how it develops across time (Carson et al., 2007). For future research, it would be more appropriate to collect data within work teams and assess authenticity levels at different points in time, allowing for a more precise analysis of the dynamic between authenticity climate and shared leadership.

Another limitation to consider is that this study did not examine the type of work or job performed by the participants. Certain jobs or types of work may require a greater or lesser degree of shared leadership, for example, independent workers, which could have influenced the results obtained. For future studies, it would be relevant to explore the relationship between the nature of work and the need for shared leadership, allowing for a more contextualized analysis.

As stated, regarding the statistical analysis, although we did not find a significant interaction effect for our conceptual model, there is a possibility that, with a larger sample size or by using a 90% confidence level, this effect could prove sufficiently strong to be statistically significant. Therefore, future research could explore the possibility of adjusting the confidence level or increasing the sample size to more robustly test the interaction hypothesis.

In addition, future research could benefit from cross-cultural comparisons to explore whether differences in cultural contexts impact the relationship between authenticity climate and shared leadership. Examining our findings across different countries could provide valuable insights into how cultural factors shape these dynamics, offering a broader and more nuanced understanding of how authenticity and shared leadership function in diverse organizational environments.

Overall, while this study has provided valuable insights, it is important to acknowledge its limitations and consider future research directions to further expand our understanding of the complex dynamics between the authenticity climate and shared leadership.

Conclusion

This dissertation aimed to explore the relationship between authenticity climate and shared leadership, addressing a notable gap in the literature. While previous research has extensively examined the consequences of shared leadership (Bergman et al., 2012; Drescher et al., 2014; Gu et al., 2016), less attention has been given to its antecedents. By integrating the concept of authenticity climate, as outlined by Grandey et al. (2012), we proposed that this specific environment may foster the emergence of shared leadership within teams.

Overall, we believe this study offers a modest but novel contribution to theory by highlighting the contrast effects between coproduction beliefs [an expression of the ethics of participation (Cludts, 1999)] and the dual orientation of shared leadership as targeting the team versus oneself. This calls attention to costs of treating shared leadership as a single construct, while instead both dimensions should be treated separately.

Likewise, participative safety seems to play an important role in bridging authenticity climate and shared leadership and therefore can be accommodated in line with Grandey's (2012) theory that highlights the benefits of being true to oneself and transparent to others. From an applied viewpoint, organizations that want to improve their shared leadership should pay attention to their team climate as regards the subjective perception of participative safety, for which organizations must establish the opportunities for team members to interact focused on thinking and proposing ideas while creating a culture where individuals abstain from criticizing in a destructive manner their coworkers, or somehow produce a negative evaluation of everyone's participation. Likewise, team leaders must not push to centralize in themselves the decision process and making.

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Appendix

Appendix A – Survey

Liderança Partilhada e o Impacto do Clima de Autenticidade

Chamo-me Ana Rita Castilho e gostaria de convidar a participar neste estudo académico, que visa compreender os impactos da liderança partilhada nas organizações. Este inquérito servirá para uma dissertação de Mestrado em Psicologia Social e das Organizações no ISCTE.

Observando as normas éticas na investigação científica, a sua participação é anónima e voluntária, podendo desistir a qualquer momento. O inquérito demora aproximadamente 5 minutos.

No caso de dúvida ou necessidade de algum esclarecimento, contacte-me, por favor, para armco3@iscte-iul.pt

A sua colaboração é muito importante, pelo que agradeço o tempo e a atenção disponibilizada.

Se concorda em participar, queira, por favor, carregar na seta abaixo para entrar no questionário.

Muito obrigada,
Ana Rita Castilho

Este estudo está direcionado para pessoas com 18 ou mais anos, atualmente a trabalhar e em contexto de equipa. Confirma que é a sua situação atual?

- ○ Sim, tenho 18 ou mais anos, estou atualmente a trabalhar, e tenho uma equipa. (1)
- ○ Não (2)

Q1 Utilizando a seguinte escala, indique até que ponto concorda com cada uma das afirmações:

	1. Discordo Fortemente (1)	2. Discordo (2)	3. Não concordo nem discordo (3)	4. Concordo (4)	5. Concordo Fortemente (5)
1. Se mostrar sinais de ansiedade ou angústia perante esta equipa, isso será usado contra mim. (15)	○	○	○	○	○
2. Os membros da equipa são capazes de discutir o que sentem em relação a problemas e questões. (16)	○	○	○	○	○
3. Os membros da equipa rejeitam os outros por mostrarem irritação ou frustração na equipa. (17)	○	○	○	○	○
4. É seguro mostrar o que realmente se sente nesta equipa. (18)	○	○	○	○	○
5. É desconfortável para os membros da equipa mostrar tristeza ou desapontamento uns com os outros. (19)	○	○	○	○	○

6. Ninguém nesta equipa agiria deliberadamente de maneira a desrespeitar os sentimentos de outro colega. (20)	○	○	○	○	○
7. Ao trabalhar com os membros desta equipa, as expressões de sentimentos são respeitadas. (21)	○	○	○	○	○

Q2 Utilizando a seguinte escala, indique até que ponto concorda com cada uma das afirmações:

	1. Discordo Fortemente (1)	2. Discordo bastante (2)	3. Discordo pouco (3)	4. Concordo pouco (4)	5. Concordo bastante (5)	6. Concordo Fortemente (6)
1. Os membros da equipa devem procurar dar sugestões aos seus líderes. (10)	○	○	○	○	○	○
2. Os membros da equipa devem identificar, proativamente, problemas que podem afetar a organização. (11)	○	○	○	○	○	○
3. Como parte do seu papel, os membros da equipa devem estar dispostos a desafiar as posições das chefias. (12)	○	○	○	○	○	○
4. Os membros da equipa devem ser proativos e pensar sobre situações que podem correr mal. (13)	○	○	○	○	○	○
5. Os membros da equipa devem partilhar as suas opiniões, mesmo sabendo que as chefias podem discordar. (14)	○	○	○	○	○	○

Q3 Utilizando a seguinte escala, indique até que ponto concorda com cada uma das afirmações:

	1. Discordo Fortemente (1)	2. Discordo (2)	3. Não Concordo Nem Discordo (3)	4. Concordo (4)	5. Concordo Fortemente (5)
1. Todos os membros da equipa dão inicio a ações para melhorar os procedimentos da equipa. (8)	○	○	○	○	○
2. Todos os membros da equipa instituem novos métodos de trabalho, de forma proativa, de maneira a melhorar a performance da equipa. (9)	○	○	○	○	○
3. Todos os membros da equipa fazem sugestões construtivas, de forma a melhorar o trabalho da equipa. (10)	○	○	○	○	○
4. Todos os membros da equipa iniciam ações para tornar a equipa mais eficaz. (11)	○	○	○	○	○
5. Todos os membros da equipa pedem orientações/conselhos uns aos outros. (12)	○	○	○	○	○
6. Todos os membros da equipa procuram informações junto dos colegas de equipa acerca das influências externas que possam ter impacto no seu trabalho. (13)	○	○	○	○	○

7. Todos os membros da equipa trocam informações sobre as suas conquistas de trabalho que poderiam afetar as suas próprias tarefas (14)	○	○	○	○	○

Q4 Utilizando a seguinte escala, indique até que ponto concorda com cada uma das afirmações:

	1. Discordo Fortemente (1)	2. Discordo (2)	3. Discordo Parcialmente (3)	4. Não concordo nem discordo (4)	5. Concordo Parcialmente (5)	6. Concordo (6)	7. Concordo Fortemente (7)
1. Se cometer um erro na minha equipa, esse erro é frequentemente usado contra mim. (8)	○	○	○	○	○	○	○
2. Os membros da minha equipa são capazes de trazer à discussão problemas e assuntos mais delicados. (9)	○	○	○	○	○	○	○
3. Por vezes, os membros da minha equipa rejeitam outros por serem diferentes. (10)	○	○	○	○	○	○	○
4. Na minha equipa é seguro arriscar. (11)	○	○	○	○	○	○	○
5. É difícil pedir ajuda aos membros da minha equipa. (12)	○	○	○	○	○	○	○
6. Ninguém na minha equipa agiria deliberadamente de forma a prejudicar os meus esforços. (13)	○	○	○	○	○	○	○

7. As minhas competências e talentos únicos são valorizados e utilizados ao trabalhar com os membros da minha equipa. (14)	○	○	○	○	○	○	○

Q5 Utilizando a seguinte escala, indique até que ponto concorda com cada uma das afirmações:

	1. Discordo Fortemente (1)	2. Discordo (2)	3. Não Concordo Nem Discordo (3)	4. Concordo (4)	5. Concordo Fortemente (5)
1. Existe uma cultura de “estamos todos juntos”. (5)	○	○	○	○	○
2. Os membros de equipa mantêm os outros membros informados. (6)	○	○	○	○	○
3. Os membros da equipa sentem-se aceites e compreendidos uns pelos outros. (7)	○	○	○	○	○
4. Os membros da equipa esforçam-se realmente para partilhar informação uns com os outros. (8)	○	○	○	○	○

Q6 Apenas para efeitos de caracterização da amostra, por favor, indique a sua idade (em anos):

_____

Q7 Qual é o seu género?

- ○ Feminino (1)
- ○ Masculino (2)
- ○ Não Binário (3)
- ○ Prefiro não dizer (4)

Q8 Qual é o grau ou nível mais alto de escolaridade que completou?

- ○ Ensino Básico (até ao 9º ano) (1)
- ○ Ensino Secundário (até ao 12º ano) (2)
- ○ Licenciatura (3)
- ○ Mestrado (4)
- ○ Doutoramento (5)

Q9 Por favor, indique há quanto tempo (anos) trabalha com a sua equipa:

_____

Q10 Por favor, indique quantos membros tem a sua equipa:

_____

Appendix B – PROCESS Statistical Outputs for Shared Leadership PB-T

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 : PBT

X : AC5it

M : ParSaf

W : CoProd

Covariates:

Age Gender Educ TeamTen TeamSize

Sample

Size: 99

****

OUTCOME VARIABLE:

ParSaf

Model Summary

R R-sq MSE F df1 df2 p

.7688	.5911	.3912	22.1656	6.0000	92.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	-3.4161	.5513	-6.1962	.0000	-4.5111	-2.3211
AC5it	.8741	.0766	11.4155	.0000	.7220	1.0262
Age	-.0045	.0064	-.7109	.4789	-.0172	.0081
Gender	.0103	.1516	.0681	.9459	-.2908	.3115
Educ	-.1001	.0955	-1.0482	.2973	-.2898	.0896
TeamTen	.0078	.0086	.9105	.3649	-.0093	.0249
TeamSize	-.0008	.0017	-.4686	.6405	-.0041	.0025

****

OUTCOME VARIABLE:

PBT

Model Summary

R	R-sq	MSE	F	df1	df2	p
.6881	.4735	.6000	8.8936	9.0000	89.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	2.6235	.8185	3.2053	.0019	.9972	4.2498
AC5it	.2128	.1477	1.4410	.1531	-.0806	.5063
ParSaf	.5466	.1300	4.2027	.0001	.2882	.8050
CoProd	.1224	.1446	.8463	.3997	-.1650	.4098
Int_1	.1649	.1354	1.2177	.2265	-.1042	.4340
Age	.0007	.0080	.0858	.9318	-.0153	.0166

Gender	-.0102	.1917	-.0534	.9575	-.3911	.3706
Educ	.0033	.1196	.0274	.9782	-.2344	.2410
TeamTen	.0019	.0108	.1722	.8637	-.0195	.0232
TeamSize	-.0010	.0021	-.4809	.6318	-.0052	.0032

Product terms key:

Int_1 : ParSaf x CoProd

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
M*W	.0088	1.4829	1.0000	89.0000	.2265

Focal predict: ParSaf (M)

Mod var: CoProd (W)

Data for visualizing the conditional effect of the focal predictor:

Paste text below into a SPSS syntax window and execute to produce plot.

```
DATA LIST FREE/
    ParSaf   CoProd   PBT     .
BEGIN DATA.
  -.9477   -.5832   3.0856
   .0000   -.5832   3.5124
   .9477   -.5832   3.9392
  -.9477    .0000   3.0658
   .0000    .0000   3.5838
   .9477    .0000   4.1018
  -.9477    .5832   3.0460
   .0000    .5832   3.6552
```

```
    .9477     .5832    4.2643

END DATA.

GRAPH/SCATTERPLOT=

 ParSaf  WITH    PTB     BY     CoProd  .
```

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

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI
.2128	.1477	1.4410	.1531	-.0806	.5063

Conditional indirect effects of X on Y:

INDIRECT EFFECT:

AC5it -> ParSaf -> PTB

CoProd	Effect	BootSE	BootLLCI	BootULCI
-.5832	.3937	.1594	.0481	.6655
.0000	.4777	.1115	.2559	.7001
.5832	.5618	.1246	.3409	.8300

Index of moderated mediation:

	Index	BootSE	BootLLCI	BootULCI
CoProd	.1442	.1538	-.0624	.5323

********** 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 mean and +/- SD from the mean.

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

CoProd ParSaf

------ END MATRIX -----

Appendix C – PROCESS Statistical Outputs for Shared Leadership PB-S

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 : PBS

X : AC5it

M : ParSaf

W : CoProd

Covariates:

Age Gender Educ TeamTen TeamSize

Sample

Size: 99

****

OUTCOME VARIABLE:

ParSaf

Model Summary

R	R-sq	MSE	F	df1	df2	p
.7688	.5911	.3912	22.1656	6.0000	92.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	-3.4161	.5513	-6.1962	.0000	-4.5111	-2.3211
AC5it	.8741	.0766	11.4155	.0000	.7220	1.0262
Age	-.0045	.0064	-.7109	.4789	-.0172	.0081
Gender	.0103	.1516	.0681	.9459	-.2908	.3115
Educ	-.1001	.0955	-1.0482	.2973	-.2898	.0896
TeamTen	.0078	.0086	.9105	.3649	-.0093	.0249
TeamSize	-.0008	.0017	-.4686	.6405	-.0041	.0025

****

OUTCOME VARIABLE:

PBS

Model Summary

R	R-sq	MSE	F	df1	df2	p
.7245	.5248	.3522	10.9225	9.0000	89.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	3.2578	.6270	5.1956	.0000	2.0119	4.5037
AC5it	.0967	.1131	.8548	.3949	-.1281	.3215
ParSaf	.4952	.0996	4.9704	.0000	.2972	.6932
CoProd	.0632	.1108	.5706	.5697	-.1569	.2834
Int_1	.2136	.1038	2.0585	.0425	.0074	.4197
Age	.0011	.0062	.1853	.8534	-.0111	.0134
Gender	-.1618	.1468	-1.1023	.2733	-.4536	.1299
Educ	.0342	.0917	.3730	.7100	-.1479	.2163
TeamTen	-.0049	.0082	-.5882	.5579	-.0212	.0115
TeamSize	-.0008	.0016	-.5177	.6060	-.0040	.0024

Product terms key:

Int_1 : ParSaf x CoProd

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
M*W	.0226	4.2376	1.0000	89.0000	.0425

Focal predict: ParSaf

Mod var: CoProd

Conditional effects of the focal predictor at values of the moderator(s):

CoProd	Effect	se	t	p	LLCI	ULCI
-.5832	.3706	.1218	3.0421	.0031	.1285	.6127
.0000	.4952	.0996	4.9704	.0000	.2972	.6932
.5832	.6198	.1110	5.5811	.0000	.3991	.8404

Moderator value(s) defining Johnson-Neyman significance region(s):

Value	% below	% above
-.9491	7.0707	92.9293

Conditional effect of focal predictor at values of the moderator:

CoProd	Effect	se	t	p	LLCI	ULCI
-1.8889	.0918	.2289	.4009	.6895	-.3631	.5466
-1.7556	.1202	.2165	.5553	.5801	-.3100	.5505
-1.6222	.1487	.2043	.7279	.4686	-.2573	.5547
-1.4889	.1772	.1923	.9213	.3594	-.2050	.5594
-1.3556	.2057	.1806	1.1387	.2579	-.1532	.5646
-1.2222	.2342	.1692	1.3836	.1699	-.1021	.5704
-1.0889	.2626	.1582	1.6599	.1005	-.0518	.5770
-.9556	.2911	.1477	1.9710	.0518	-.0024	.5846
-.9491	.2925	.1472	1.9870	.0500	.0000	.5850
-.8222	.3196	.1377	2.3201	.0226	.0459	.5933
-.6889	.3481	.1285	2.7081	.0081	.0927	.6034
-.5556	.3765	.1202	3.1329	.0023	.1377	.6153
-.4222	.4050	.1129	3.5863	.0005	.1806	.6294
-.2889	.4335	.1070	4.0518	.0001	.2209	.6461

-.1556	.4620	.1026	4.5038	.0000	.2582	.6658
-.0222	.4904	.0999	4.9096	.0000	.2920	.6889
.1111	.5189	.0991	5.2368	.0000	.3220	.7158
.2444	.5474	.1002	5.4624	.0000	.3483	.7465
.3778	.5759	.1032	5.5807	.0000	.3708	.7809
.5111	.6044	.1079	5.6024	.0000	.3900	.8187
.6444	.6328	.1141	5.5485	.0000	.4062	.8595
.7778	.6613	.1215	5.4428	.0000	.4199	.9027

Data for visualizing the conditional effect of the focal predictor:

Paste text below into a SPSS syntax window and execute to produce plot.

```
DATA LIST FREE/
    ParSaf   CoProd   PBS     .
BEGIN DATA.
   -.9477   -.5832   3.1784
    .0000   -.5832   3.5297
    .9477   -.5832   3.8809
   -.9477    .0000   3.0972
    .0000    .0000   3.5665
    .9477    .0000   4.0358
   -.9477    .5832   3.0161
    .0000    .5832   3.6034
    .9477    .5832   4.1908
END DATA.
GRAPH/SCATTERPLOT=
 ParSaf  WITH   SDB    BY     CoProd  .
```

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

Direct effect of X on Y

Effect	se	t	p	LLCI	ULCI
.0967	.1131	.8548	.3949	-.1281	.3215

Conditional indirect effects of X on Y:

INDIRECT EFFECT:

AC5it -> ParSaf -> SDB

CoProd	Effect	BootSE	BootLLCI	BootULCI
-.5832	.3240	.1285	.0647	.5725
.0000	.4328	.0973	.2319	.6136
.5832	.5417	.0980	.3303	.7164

Index of moderated mediation:

	Index	BootSE	BootLLCI	BootULCI
CoProd	.1867	.1028	-.0427	.3647

************************ 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 mean and +/- SD from the mean.

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

CoProd ParSaf

------ END MATRIX -----