LEADING TOWARDS VOICE AND INNOVATION: THE ROLE OF PSYCHOLOGICAL CONTRACT

by

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Declaration

I declare that "Leading towards voice and innovation: The role of psychological contract" is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

I further declare that I submitted the thesis to originality checking software and that it falls within the accepted requirements for originality.

I further declare that I have not previously submitted this work, or any part of it, for examination at Unisa for another qualification, or at any other higher education institution.

Larysa Botha

25 January 2022

Dedication

This work is dedicated to my beloved parents Antonina and Yuri, my sister Marina, and my husband Cory. You were the souls who believed in me from the very beginning and who encouraged me on the days when I was down and about to give up. My dear mother, it was you who instilled in me an unstoppable faith that anything is achievable. Thank you! I have stood by your words every day of the last four years. To Cory, thank you for convincing me to embark on this journey. I am grateful for your utmost commitment to supporting me along the way.

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LEADING TOWARDS VOICE AND INNOVATION: THE ROLE OF PSYCHOLOGICAL CONTRACT

Abstract

<u>Background:</u> Empirical evidence generally suggests that psychological contract breach (PCB) leads to negative outcomes – such as withholding of discretionary activities, including employee voice (EV) and innovative work behaviour (IWB). However, some literature argues that, occasionally, PCB leads to positive outcomes.

<u>Aim:</u> This research aims to empirically determine under which conditions these positive outcomes occur, focusing on the type of psychological contract (PC), PCB, and how leadership styles influence EV and IWB. To structure the research, a complex, theory-based model was developed and tested for validity.

<u>Setting:</u> The study was conducted in South Africa, targeting employees in medium-to-large organisations.

<u>Method:</u> A cross-sectional survey design was adopted, whereby respondents completed reputable questionnaires on PC, PCB, EV, IWB, and leadership styles. Correlation analyses were used to test direct links within the model, while regression analyses were used to test for the moderation effects. Leadership styles were the main moderators.

<u>Results:</u> Data were collected from 11 organisations (N=620). All instruments showed acceptable psychometric properties. The results revealed that PCB does not lead to substantial changes in IWB. PCB correlated positively with prohibitive EV, but did not influence promotive EV, which was a significant driver of IWB. Leadership styles were weak predictors of EV and IWB, and the PCB-EV relationship was, only in one case, partially moderated by leadership styles.

<u>Conclusion</u>: PCB is not a significant predictor of IWB, but was found to elicit prohibitive EV. The assumption of leadership styles influencing the relationships between PCB and EV or IWB was not supported. Contrary to expectation, leadership styles partially influenced the relationships between variables, and not in a manner that would positively influence IWB.

<u>Recommendations</u>: This research revealed negative effects of PCB on discretionary behaviours, hence, managers are advised to focus on fulfilment of PC. As promotive EV predicts IWB, it should be encouraged. Lastly, with the impact of leadership styles on model variables having been found to be minimal, it is clear that other explanations for positive PCB-IWB relations need to be explored.

<u>Contributions</u>: This thesis sheds light on the relative importance of leadership as an enabler of IWB under conditions of PCB, which was not significant. The study also contributes to the body of knowledge on the effects of multidimensional PCB and EV, and particularly the relative importance of promotive EV driving IWB. The thesis also fills gaps in existing theory explaining the PCB-IWB link.

Keywords: Psychological contract, psychological contract breach, leadership styles, innovative work behaviour, employee voice, South Africa

LEIERSKAPSTYLE, WERKNEMERSTEM, INNOVERING EN DIE ROL VAN SIELKUNDIGE KONTRAKTE

Opsomming

<u>Agtergrond:</u> Empiriese bewyse dui oor die algemeen daarop dat sielkundige kontrakbreuk (SKb) tot negatiewe uitkomste lei, wat diskresionêre aktiwiteite soos werknemerstem (Ws) en innoverende werkgedrag (IW) insluit. Sommige literatuur gee egter te kenne dat SKb wel soms positiewe uitkomste tot gevolg het.

<u>Oogmerk:</u> Hierdie navorsing het ten doel gehad om empiries te bepaal onder watter omstandighede hierdie positiewe uitkomste voorkom, met die fokus op die tipe sielkundige kontrak (SK), SKb en hoe leierskapstyle Ws en IW beïnvloed. Om die navorsing te struktureer is 'n komplekse, teoriegebaseerde model ontwikkel en stapsgewys vir geldigheid getoets.

<u>Milieu:</u> Die studie is in Suid-Afrika uitgevoer en daar is op werknemers in medium-tot-groot organisasies as teikengroep gekonsentreer.

<u>Metode:</u> 'n Deursnee-opname-ontwerp is gebruik, en respondente het vraelyste oor SK, SKb, Ws, IW en leierskapstyle voltooi. Korrelasie-ontledings is gebruik om direkte skakels binne die model te toets, terwyl regressieontledings aangewend is om te toets vir die modererrings effek van die onderskeie leierskapstyle.

<u>Resultate:</u> Data van 11 organisasies is ingesamel (N = 620). Alle instrumente het aanvaarbare psigometriese eienskappe getoon. Die resultate het aangedui dat SKb nie tot wesenlike veranderinge in IW lei nie. SKb korreleer positief met afbrekende Ws, maar beïnvloed nie bevorderende Ws (wat 'n wesenlike aandrywer van IW is) nie. Leierskapstyle is swak voorspellers van Ws en IW, en die SKb-Ws-verhouding was, in net een geval, gedeeltelik deur leierskapstyle gemodireer.

<u>Gevolgtrekking:</u> SKb is nie 'n wesenlike aandrywer van IW nie, maar daar is bevind dat dit wel afbrekende Ws teweegbring. Die veronderstelling oor leierskapstyle wat die verhoudings tussen SKb en Ws of IW beïnvloed, word nie gestaaf nie. Teen die verwagting in, word die verhoudings tussen veranderlikes gedeeltelik deur leierskapstyle beïnvloed – en nie op 'n manier wat IW positief sal beïnvloed nie.

<u>Aanbevelings:</u> Hierdie navorsing onthul negatiewe uitwerkings van SKb op diskresionêre gedrag en bestuurders word dus aangeraai om op die vervulling van SK te fokus. Aangesien bevorderende Ws IW voorspel, behoort dit aangemoedig te word. Laastens, in die lig van die bevinding dat die impak van leierskapstyle op modelveranderlikes minimaal is, is dit duidelik dat ander verduidelikings vir positiewe PKb-IW-verbande ondersoek moet word.

<u>Bydraes:</u> Hierdie studie werp lig op die relatiewe belangrikheid van leierskap as 'n instaatsteller van IW onder omstandighede van SKb, wat nie beduidend is nie. Die studie dra ook by tot die kenniskorpus oor die uitwerkings van multidimensionele SKb en Ws, en in die besonder die <u>relatiewe</u> belangrikheid van bevorderende Ws wat IW aandryf. Die studie oorbrug ook die leemtes in bestaande teorie wat die SKb-IW-skakel verduidelik.

Sleutelwoorde: sielkundige kontrak (psychological contract), sielkundige kontrakbreuk (psychological contract breach), leierskapstyle (leadership styles), innoverende werksgedrag (innovative work behaviour), werknemerstem (employee voice), Suid-Afrika (South Africa)

OKUHOLELA EZWINI KANYE NOKUQALA OKUSHA: INDIMA YENKONTILEKA YEZENGQONDO

Okucashuniwe

<u>Isendlalela:</u> Ulwazi olutholwa ngokuhlolwa ngokuvamile luphakamisa ukuthi ukwephulwa kwenkontileka yengqondo (PCB) kuholela emiphumeleni engemihle - njengokugodla imisebenzi yokuzikhethela, okuhlanganisa izwi lesisebenzi (EV) kanye nokuziphatha komsebenzi okusha (IWB). Nokho, eminye imibhalo ithi, ngezikhathi ezithile, i-PCB iholela emiphumeleni emihle.

Inhloso: Lolu cwaningo luhlose ukucacisa ngokuqina ukuthi le miphumela emihle iba ngaphansi kwaziphi izimo, lugxile ohlotsheni lwenkontileka yengqondo (PC), i-PCB nokuthi ubuholi buyithonya kanjani i-EV ne-IWB. Ukuhlela ucwaningo, isifanekiso eyinkimbinkimbi, esisekwe umbono sasungulwa futhi sahlolelwa ukuba semthethweni.

<u>Isizinda:</u> Lolu cwaningo lwenziwe eNingizimu Afrika, luqondiswe kubasebenzi abasezinhlanganweni eziphakathi nendawo kuya kwezinkulu.

<u>Indlela:</u> ucwaningo lokuqoqa imininingwane ebantwini abaningi abahlukene lwemukelwa, futhi abaphendulayo bagcwalise uhlu lwemibuzo oluthembekile ku-PC, PCB, EV, IWB kanye nezitayela zobuholi. Ukuhlaziya kokuhlobana kusetshenzisiwe ukuhlola izixhumanisi eziqondile ngaphakathi kwesifanekiso, kuyilapho ukuhlaziya kokuhlehla kwasetshenziselwa ukuhlola imiphumela yokulinganisela. Izitayela zobuholi bekungabomengameli abakhulu.

Imiphumela: Imininingwane iqoqwe ezinhlanganweni eziyi-11 (N = 620). Wonke amathuluzi abonise izakhiwo ezamukelekayo zesilinganiso sezici zengqondo, amakhono, nezinqubo. Imiphumela yembula ukuthi i-PCB ayiholeli ezinguqukweni ezinkulu ku-IWB. I-PCB ihlobana kahle ne-EV evimbelayo, kodwa ayithinti i-EV yokuthuthukisa, ewumqhubi obalulekile we-IWB. Izitayela zobuholi ziyizibikezelo ezibuthakathaka ze-EV ne-IWB, futhi ubudlelwano be-PCB-EV, esimweni esisodwa, bebunganyelwe ngokwengxenye izitayela zobuholi.

<u>Isiphetho:</u> I-PCB ayisona isibikezelo esibalulekile se-IWB, kodwa kutholwe ukuthi yenze i-EV evimbelayo. Ukucatshangwa kwezitayela zobuholi ezithonya ubudlelwano phakathi kwe-PCB ne-EV noma i-IWB akusekelwe. Ngokuphambene nalokho okulindelekile, izitayela zobuholi zithonya kancane ubudlelwano phakathi kwezinto eziguquguqukayo, hhayi ngendlela engaba nomthelela omuhle ku-IWB.

<u>Iziphakamiso:</u> Lolu cwaningo luveza imiphumela engemihle ye-PCB ekuziphatheni kokuzikhethela; ngakho-ke abaphathi bayelulekwa ukuthi bagxile ekugcwalisekeni kwe-PC. Njengoba i-EV ekhuthazayo ibikezela i-IWB, kufanele ikhuthazwe. Okokugcina, ngomthelela wezitayela zobuholi ekuguquguqukeni kwesilinganiso okutholwe kukuncane, kuyacaca ukuthi ezinye izincazelo zobudlelwano obuhle be-PCB-IWB zidinga ukucutshungulwa.

Iminikelo: Lolu cwaningo lunikeza ukukhanya ngokubaluleka okuhlobene kobuholi njengokwenza i-IWB isebenze ngaphansi kwezimo ze-PCB, ezingabalulekile. Lolu cwaningo luphinde lufake isandla emzimbeni wolwazi emiphumeleni ye-PCB ne-EV ehlukahlukene, futhi ikakhulukazi ukubaluleka okuhlobene kokuthuthukisa i-EV ukuqhuba i-IWB. Ucwaningo luphinde lugcwalise izikhala kumbono okhona ochaza isixhumanisi se-PCB-IWB.

Amagama asemqoka: Inkontileka yezengqondo (psychological contract), ukwephulwa kwenkontileka yezengqondo (psychological contract breach), izitayela zobuholi (leadership styles), ukuziphatha komsebenzi okusha (innovative work behaviour), izwi lesisebenzi (employee voice), iNingizimu Afrika (South Africa)

Preface

This thesis is a thesis by publication and, as such, is presented in a non-traditional format. Whereas the conventional structure of the thesis would include chapters on background, theoretical foundations, literature review, methodology, results, and finally conclusions, recommendations and limitations, the format of this thesis takes a different direction. Chapter 1 takes the form of a conventional introductory chapter and thus provides an orientation to the study. Likewise, the last chapter, Chapter 9, is presented as a conventional summary chapter, providing, as it does, the conclusions, recommendations. Chapters 2 to 8 are presented as individual articles, with each comprised of a targeted introduction, a focused literature review, the specific methodology applied, the results of the respective investigations, and the conclusions and recommendations, as per conventional article format. The reason for adopting such an approach was, firstly, to address the distinct individual objectives set out in each of the articles, and, secondly, to facilitate the dissemination of the research results. Chapters 2, 3 and 4 cover objectives related to literature review, while Chapters 5 to 8 address the four empirical objectives.

The body of the thesis comprises seven articles, with Articles 1 to 4 having been published in 2020–2022. Articles 5, 6 and 7 are, at the time of writing, under review. Details of the seven articles are presented below, along with their unique *DOI* references where relevant.

- <u>Article 1:</u> Botha, L., & Steyn, R. (2021). Conceptualisation of psychological contract: Definitions, typologies and measurement. *Journal of Social Science Studies*, 8(2), 1–20. <u>https://doi.org/10.5296/jsss.v8i2.18703</u>
- <u>Article 2:</u> Botha, L., & Steyn, R. (2020). Psychological contract breach and innovative work behaviour: Systematic literature review. *Southern African Journal of Entrepreneurship and Small Business Management*, 12(1), 1–8. <u>https://doi.org/10.4102/SAJESBM.V12I1.333</u>
- <u>Article 3:</u> Botha, L., & Steyn, R. (2020). Conceptualisation of employee voice: Definitions, typologies and measurement. *International Journal of Human Resource Studies*, 10(3), 134–152. <u>https://doi.org/10.5296/ijhrs.v10i3.17495</u>
- <u>Article 4:</u> Botha, L., & Steyn, R. (2022). The effects of psychological contracts, and the breach thereof, on innovative work behaviour. *African Journal of Employee*

Relations, 45, 1–28. https://doi.org/10.25159/2664-3731/9906

- <u>Article 5:</u> Botha, L., & Steyn, R. (2022). Psychological contract and employee voice: Does breach matter? [Under review]
- <u>Article 6:</u> Botha, L., & Steyn, R. (No date). Employee voice and innovative work behaviour: Empirical evidence from South Africa. *Cogent Psychology* [In press]
- <u>Article 7:</u> Botha, L., & Steyn, R. (No date). Employee voice as a behavioural response to psychological contract breach: Moderating effect of leadership style. [Under review]
- <u>Article 8:</u> Botha, L., & Steyn, R. (No date). Leading towards voice and innovation: The role of psychological contract. [Accepted for publication in the Conference Proceedings of the International Business Conference (IBC) 2022]

The layout of the articles differs in accordance with the publication guidelines of the journals they were submitted to. The consolidated reference list meets the requirements of the Publication Manual of the American Psychological Association (6th edition).

List of Abbreviations

- IWB Innovative work behaviour
- PC Psychological contract
- TPC Transactional psychological contract
- RPC Relational psychological contract
- PCB Psychological contract breach
- TPCB Transactional psychological contract breach
- RPCB Relational psychological contract breach
- EV Employee voice
- SV Supportive voice
- CV Constructive voice
- DfV Defensive voice
- DsV Destructive voice
- TsL Transactional leadership style
- TfL Transformational leadership style
- DL Directive leadership style
- EL Empowering leadership style
- SET Social exchange theory
- PCT Psychological contract theory
- CORT Conservation of resources theory

CHAPTER 1: ORIENTATION

This research is predominantly concerned with the role of leadership when psychological contract breach (PCB) occurs in organisations, particularly in those organisations in which innovative work behaviour (IWB) is essential. More specifically, this research looks at the interplay between antecedents to IWB, namely psychological contract (PC), PCB, employee voice (EV) and leadership style (LS), as well as how LS could direct PCB towards IWB. Aligned with this explanation, the title of the study is "Leading towards voice and innovation: The role of psychological contract". The purpose of the study was to accumulate information pertaining to leading employees in such a way that they will be willing to contribute their innovative ideas towards organisational improvements, despite occurrences of PCB.

Chapter 1 provides an orientation to the reader. It starts with the background to the study, as part of which a selection of literature is discussed so as to provide context. This is followed by the problem statement and by the goal of the study. A conceptual framework is then presented, providing the structure for informing the aims and objectives, which are outlined thereafter. This leads to a discussion on the relevance of these objectives, and also on how the study was delineated. The theoretical framework utilised for this study is presented next, followed by a discussion of the research methods, which addresses matters such as the research design, the respondents, the research process, the selected statistical analyses, and also matters regarding research ethics. At the close of the chapter, the reader is informed as to how the rest of the thesis is structured.

1.1 Background

Given the title of the study, the first variable of interest is innovation. According to Mercer's "2018 Global Talent Trends Study", only a staggering 15 per cent of employees say that their organisations welcome innovation (Mercer, 2018). In the same paper, Mercer indicated that 94 per cent of executives admit that innovation is a fundamental part of their 2018 agenda (Mercer, 2018). In the equivalent report, published one year later, Mercer highlights a perceived decrease in employee engagement (Mercer, 2019). Furthermore, Mercer sounds an alert that "only half of employees say their company listens to their ideas for improving business outcomes" (Mercer, 2019, p. 32). Finally, in the "2020 Global Talent Trend Study", which was

created against the backdrop of the present COVID-19 global disruption, it was emphasised that, in the near- and long-term future, together with the application of new skills, innovation will be a universal element of [employee] performance (Mercer, 2020).

A significant number of studies have investigated antecedents to individual innovation. A wide range of constructs is to be found among the predicting variables, some related to human resource management (HRM) practices, namely, training and development (Ong, Wan, & Chng, 2003), rewards (Ramamoorthy, Flood, Slattery, & Sardessai, 2005), job security (De Spiegelaere, Van Gyes, & Van Hootegem, 2012), job autonomy (Wu, Parker, & de Jong, 2014), feedback (Chang, Hsu, Liou, & Tsai, 2013), along with others related to various contingent factors within the organisation. These include trust (Agarwal, 2014b), leadership (García-Morales, Matías-Reche, & Hurtado-Torres, 2008), perceived supervisor support (Janssen, 2005), psychological capital (Kim, Karatepe, & Lee, 2017), openness to employee voice (Detert & Burris, 2007), job stressors (Ng & Feldman, 2012) and breaches of promises or expectations (Agarwal & Bhargava, 2014). Although these antecedents to innovation are important, in this study, the focus will be on just three, namely, psychological contract (including breach), leadership style and employee voice.

Specific leadership behaviours, when exercised in the work environment, promote innovation, high performance and competitiveness. These behaviours are risk-taking, interaction with external environment, and participative decision making, as well as open-mindedness, shared vision and intra-organisational knowledge sharing, all of which are related to transformational leadership style (Vargas, 2015).

Similarly, Abbas, Iqbal, Waheed and Riaz (2012) suggest that facets of transformational leadership style, such as decision making, conflict management and knowledge management, are likely to promote innovative work behaviour (IWB). In their study, De Jong and Den Hartog (2007) investigated how various leaders' behaviours impact subordinates' individual innovation. They found that intellectual stimulation, providing vision, and stimulating knowledge diffusion may positively influence employees' individual innovative efforts, specifically, idea generation and application behaviour, as aspects of innovation. Finally, Zhang and Zhou (2014), in their investigation of the conditions under which creativity is the highest, found that empowering leadership had the strongest positive correlation with the creativity

construct. Similar results are reported in a more recent study (Chen & Hou, 2016) that confirms the positive relationship between ethical leadership style and innovation.

The next central construct in this study is psychological contract breach (PCB). A large number of empirical studies have provided overwhelming evidence that PCB negatively correlates with employees' in-role performance (Hartmann & Rutherford, 2015), work engagement (Agarwal, 2014b), affective commitment (Rigotti, 2009), and organisational citizenship behaviour (Lu, Shen, & Zhao, 2015). Where studies have taken place under conditions of PCB, a number of researchers have reported that PCB negatively correlates with IWB (Li, Feng, Liu, & Cheng, 2014; Ng, Feldman, & Lam, 2010; Vander Elst, De Cuyper, Baillien, Niesen, & De Witte, 2016).

Interestingly, there are mixed results on the impact of PCB on employee voice. While Turnley and Feldman (1999) and Liang (2017) found there to be a negative relationship between the two, Zagenczyk, Cruz, Cheung, Scott, Kiewitz and Galloway (2015) and Akhtar, Bal and Long (2016) report the opposite – a positive relationship. This disagreement may be explained by the choice of types of employee voice selected for studies and by contextual factors that provoke employees to express one or other type of their voice, or even to withhold it. For example, Akhtar et al. (2016) report that the higher the perceptions of employees of the psychological contract breach, the more likely they will withhold their contributions towards the organisation through voicing.

As a discretionary behaviour, employee voice is associated with organisational citizenship behaviour and extra-role behaviour (Van Dyne & LePine, 1998). Employees engage in such behaviours when certain conditions exist within the organisation or within a work group. It is generally assumed that employees' work attitudes and behaviours are the product of a range of organisational factors that they are exposed to and a reflection of relationships that they develop with their supervisors and co-workers. A number of studies have suggested that relational or social ties between employees and employers, which determines the nature of the psychological contract (PC) type between the two parties in the relationship, play a critical role in employees deciding whether to employee voice their suggestions for improvements or to remain silent (Milliken, Morrison, & Hewlin, 2003). For example, employees might have novel ideas, suggestions or concerns with regard to organisational issues, but, before speaking up, they will weigh various benefits and risks (e.g. relational

exchanges) against the subject of concern (Morrison, 2011). Often, employees who provide employee voice may be perceived by others in the organisation as troublemakers and can receive lower ratings from their supervisors (Seibert, Kraimer, & Crant, 2001).

In the light of the aforementioned, such affairs may, on the surface, seem quite simplistic: individual innovation, considering the antecedents discussed above, is the outcome of certain leadership styles and certain types of employee voice, and does not occur under conditions of PCB. However, a number of empirical studies place doubt on this proposition. In one study, it was found that certain attitudes and employee behavioural outcomes that were perceived as negative – such as job dissatisfaction, typically resulting in absenteeism, turnover and decreased organisational citizenship behaviour – may actually lead to employee's creativity in the search for organisational improvements (Zhou & George, 2001). A different piece of research reports a positive relationship between PCB and innovation – moderated by organisational embeddedness dimensions, such as higher-level links in the organisation and the higher person-organisation fit (Kiazad, Seibert, & Kraimer, 2014).

Given these mixed results, further investigations are necessary, not only to satisfy academic curiosity, but to also to understand how managers may lead organisations towards innovation.

Both concepts, that is, employee voice (defined by Morrison (2011) as "discretionary communication of ideas, suggestions, concerns, or opinions about work-related issues with the intent to improve organisational or unit functioning") and innovative work behaviour (defined by Kleysen and Street (2001) as "all individual actions directed at the generation, introduction and/or application of beneficial novelty at any organisational level") may seem very similar. However, for innovation to take place, the intention on the part of the actor - an employee, to give voice must first occur. As is evident above, the choice of giving employee voice was found to be dependent on a group of variables, such as PC, PCB, and leadership style, which are of a specific interest of this study.

1.2 Problem statement

Fostering innovation is an important managerial task (Bos-Nehles, Renkema, & Janssen, 2017) and, as PCB is perceived as the norm, rather than the exception

(Robinson & Rousseau, 1994), innovative work behaviour may be withheld (Ng et al., 2010). Organisations would be in a more advantageous position when all employees are willing to share creative ideas and recommendations towards operational and product improvements and are encouraged and feel free to engage in innovative work behaviour (IWB) (Akhtar et al., 2016; Milliken et al., 2003; Morrison, 2011; Zagenczyk et al., 2015). Although PCB may theoretically lead to innovation (Kiazad et al., 2014), this is seldom empirically demonstrated (Zhao, Wayne, Glibkowski, & Bravo, 2007), and the conditions under which this occurs are largely unclear. Leadership is one way of influencing employees (Lee et al., 2020). As leadership is known to influence employee voice (Jada & Mukhopadhyay, 2018), and as employee voice relates to innovation (Zhou & George, 2001), soliciting appropriate employee voice via leadership may be the avenue to innovation, given PCB. However, the literature is silent on the complex relationship between PCB, employee voice, and innovation, and how leadership affects this relationship. Thus, managers are unclear as to how to apply themselves in an environment typified by PCB and where innovation is necessary. Given the dearth of literature, researchers and academics are ill-equipped to advise managers on how this dilemma might be resolved.

1.3 Goal of the study

The goal of the study was to empirically determine how different leadership styles affect employee voice and innovation under conditions of PCB, and how these variables relate to each other. As a result, the goal would be to advise managers on the appropriate leadership styles to employ, given the extent of PCB. Before activities to solve the empirical question could commence, intensive literature reviews were necessary, focusing on operationalising the variables and reporting on previous findings that specify the relationships between the variables.

1.4 Proposed conceptual framework

The conceptual framework is embedded in the theories explained under heading 1.9 (Theoretical Foundations), below. The framework will be discussed by, firstly, specifying the variables included in the model, and then proposing a structure detailing how they may relate.

The following framework proposes the way in which the variables are related, and it serves as a structure to guide the research questions.

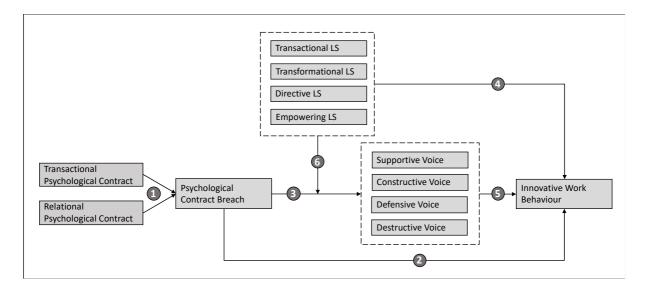


Figure 1: Conceptual framework (Source: Author)

Figure 1 represents several sets of relationships between variables, as well as several points of conceptual and empirical investigation undertaken as part of this study. Each of the points, numbered from 1 to 6, aims to answer a specific research question, and these are discussed in the following section.

1.5 Research questions

The proposed conceptual framework illustrates interactions between the research variables and informs the set of research questions. The research questions build on each other and, in their own right, are sub-models within the framework. Successively, they explore increasingly advanced models.

- Question 1: What is the effect of psychological contracts and breach on innovative work behaviour? (See 1 and 2 in Figure 1)
- Question 2: What is the effect of psychological contracts and breach on employee voice? (See 1 and 3 in Figure 1)
- Question 3: In what way do different types of employee voice relate to innovative work behaviour? (See 4 and 5 in Figure 1)
- Question 4: What type of leadership style is the most effective in facilitating appropriate employee voice, given the various types of psychological contract breach? (See 3 and 6 in Figure 1)

1.6 Research objectives

This study intends to achieve a combination of conceptual and empirical objectives:

Objective 1: <u>To critically analyse literature related to the nature, as well as the measurement of all constructs examined in this study</u>. Meeting this objective would allow for the selection of reliable and valid instruments to be used in the study. Chapters 2, 3, and 4 collectively comprise conceptual literature reviews. These chapters represent three individual articles, each dedicated to the goal of providing a critical review of the literature on how each construct is conceptualised – that is, how it is defined, taxonomised and operationalised. In Chapter 2, the focus is on psychological contract. In Chapter 3, the focus is on psychological contract breach and innovative work behaviour. In Chapter 4, the focus is on employee voice.

Objective 2: <u>To report and critically assess published empirical results pertaining to</u> <u>the relationships between variables, particularly those specified in the conceptual</u> <u>model</u>. Meeting this objective would facilitate the development of a theory-based conceptual model of the study. Four empirical articles, which form the bases of Chapters 5 – 8, together provide the literature review specifically pertaining to empirical findings on the relationships between the variables studied in this research. In Chapter 5, the reporting in the literature review was on the links between psychological contracts, psychological contract breach, and innovative work behaviour. In Chapter 6, the reporting in the literature review was on the links between employee voice, innovative work behaviour, and psychological contract breach. In Chapter 7, the reporting in the literature review was on the link between employee voice, leadership, and innovative work behaviour. In Chapter 8, the reporting in the literature review was on the link between employee voice, leadership, and innovative work behaviour. In Chapter 8, the reporting in the literature review was on the link between psychological contract breach, employee voice, and leadership.

Objective 3: <u>To collect data representative of the South African working population on</u> <u>the mentioned variables.</u> Meeting this objective would allow for the empirical testing of hypotheses relating to the conceptual model. Chapter 1 provides detailed descriptions of the sampling and data collection. Chapters 5 – 8, meanwhile, present shortened versions of the data collection process.

Objective 4: <u>To test the reliability and validity of the data collected.</u> Acceptable results for reliability and validity would ensure the necessary confidence in testing the set hypotheses. Chapter 1 outlines the selection of the measuring instruments that formed the basis of the questionnaire employed in this study. In the empirical articles, the

relevant instruments are described, with the reliability and validity specifics provided for each.

Objective 5: <u>To test hypotheses relating to the interrelationships within the framework</u>. In testing the conceptual model, it was possible to indicate the relative importance of specific leadership styles in facilitating employee voice and innovation. Each of the empirical chapters, Chapters 5, 6, 7, and 8, aimed to test relevant sets of subhypotheses, as well as to analyse the relationships between variables.

Objective 6: <u>To report on and to make recommendations pertaining to the theory and</u> <u>practice within organisations</u>. This will allow dissemination of the research findings. The seven chapters, from Chapter 2 to Chapter 8, address the contribution to theory and discuss the managerial implications pertaining to a specific research problem. All of these recommendations were then integrated into the final chapter.

1.7 Relevance

The relevance of being heard in the workplace and the relevance of contributing individual innovation are typical of contemporary society – perhaps more so now than in the past. Within a detached society, psychological contracts become less explicit, and managers need assistance, particularly when breaches of these contracts occur. This study sheds light on this pertinent issue.

This research is novel in a number of ways. Firstly, to the researcher's knowledge, the role of leadership within the context of these variables had not previously been investigated. Secondly, employee voice, as defined by Maynes and Podsakoff (2014), and studied as an antecedent of IWB, had not previously been empirically tested in association with PC, PCB and leadership style. Thirdly, many of the sub-hypotheses had not been tested in the South African context. Lastly, the methodology used to assess these relations is novel to the extent that it combines analyses not typically used together.

1.8 Delineations

The research was delineated in terms of the number of variables used. Not all variables related to the dependent variable (IWB) and extraneous variable (employee voice) were included in the research, as this would have resulted in a list too long to be captured in a questionnaire of reasonable length. Furthermore, the focus was on variables, which were theoretically linked and empirically tested as dyads in previous

research (see Agarwal & Bhargava, 2014; De Jong & Den Hartog, 2007; Detert & Burris, 2007; Li et al., 2014)), but have not been combined and tested in one comprehensive conceptual model previously. In this way PC, PCB and leadership styles were introduced as independent variables and EV and IWB as dependent variables. A notable exception concerning this research is the absence of a measure of personality traits that could influence innovation (Hsieh, Hsieh, & Wang, 2011; Yesil & Sozbilir, 2013) and employee voice (Walumbwa & Schaubroeck, 2009; Xu, Qin, Dust, & DiRenzo, 2019).

A single information source – namely, employees – was used for this study. Gaining data from a different source, for example, from managers/supervisors, would have been valuable (Stewart, Bing, Davison, Woehr, & McIntyre, 2009). However, this source was not explored in this research. The sourcing of information was, instead, delineated to employees only, as linking employees with managers would have involved additional ethical risks, particularly as regards the protection of anonymity.

Single method is often presented as a limitation in survey designs. However, this was managed at an ex-ante level by limiting item numbers in the research questionnaire, and by using different response formats (Podsakoff, MacKenzie, & Podsakoff, 2012). Moreover, it was ensured that the individual questions were unambiguously worded (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Further measures to curb common method bias included reassuring respondents as to the anonymity and confidentiality of their responses and that their careers would not be placed at risk – a measure that also solicits true responses (Steenkamp, De Jong, & Baumgartner, 2010). At an exante level, Harman's single-factor test (Fuller, Simmering, Atinc, Atinc, & Babin, 2016) and the Bagozzi's correlation test (Bagozzi, 1984; Bagozzi, Yi, & Phillips, 1991) were performed. The results of these tests are reported on in the last chapter.

This research was also delineated as regards the use of surveys only. The motivation was to define relationships in a quantitative manner, free from subjectivity. This is aligned with the positivistic (Slevitch, 2011) stance taken in this research. In hindsight, interviews may be valid in establishing the link between PCB and IWB, as this may occur as the exception, rather than as a rule (Li et al., 2014). Interviews may have been successful in explaining these exceptions.

The literature search was limited to full-text articles in peer-reviewed and scholarly journals, published in English. These were retrieved from the four most popular and comprehensive academic databases in Business Management (EBSCOhost, Google Scholar, ProQuest and Sabinet). Searching within these databases only, while limiting the search to publications in English, may well have resulted in pertinent literature being excluded from the search. However, adoption of this delineation was based on practical grounds.

The research also focused on regression analyses and not structural equation modelling in testing the research hypotheses. The models testing the roles of PCB and leadership styles in the relationship between innovative work behaviour and its antecedents were performed in SPSS, following the procedures recommended by Fairchild and Mackinnon (2009), an approach that corresponds to the seminal work of Baron and Kenny (1986). This method was preferred over the PROCESS macro proposed by Hayes (2013), or the structural equation modelling exercise in AMOS, as Fairchild and Mackinnon's (2009) method specifies the modelling in a simple and easily comprehensible manner, as compared to other techniques.

The generalisation of the results of the study is limited by the delineation of the sample. Although generalisation to all employees and all workplaces was the aim, practical considerations necessitated the researcher's focus being narrowed to a South African sample of employed respondents, working in medium-to-large organisations. Due to this limitation, generalisations should be limited to the same group.

1.9 Theoretical foundations

Theoretically, this research is embedded in the positivist paradigm, where the universe is presumed knowable and predictable. Quantitative data was collected and analysed statistically to make data-informed decisions. The researcher is primarily seen as objective and detached from the study. Results are interpreted as if they can be universally applied – thus universal truths will be revealed. Furthermore, given that the quantitative method is objective and the results can be standardised readily, it is of a high external validity (Cooper & Schnidler, 2011).

The hypotheses-building, as well as data analyses and interpretations, were done mainly through the lens of three theories: social exchange theory (SET) (Blau, 1964), psychological contract theory (PCT) (Rousseau, 1995, 2011; Rousseau & McLean

Parks, 1993) and conservation of resources theory (CORT). Next, these theories will be explained in more detail.

1.9.1 Social exchange and psychological contract theories

Introduced by Blau (1964), social exchange theory (SET) implies that members in a relationship endeavour to attain reciprocity, by which one party is morally obligated to give something in return for something received (Cropanzano & Mitchell, 2005). Cropanzano and Mitchell (2005) argue that, when employees receive economic and socio-emotional resources from their employer, they feel obligated to respond in kind. Such exchanges typically include the mutual understanding that the employer will provide a safe working environment, fair opportunities for career advancement, training and development prospects in return for employee commitment, loyalty and good job performance (Conway & Briner, 2005; Dabos & Rousseau, 2004). Given that employees prefer to characterise their relationship with employers as social, rather than economic exchanges, when they feel that their efforts and contributions in such a social exchange relationship are fairly rewarded, they are keen to reciprocate by way of discretionary activities that go beyond the contractual, e.g. innovative behaviour (Organ, 1990). Thus, it may be expected that, when employees perceive that their efforts are under-rewarded by the organisation, they may restrict their in-role performance, organisational commitment and extra-role behaviours (Hartmann & Rutherford, 2015; Paillé, Raineri, & Valeau, 2016; Raja, Johns, & Ntalianis, 2004; Rigotti, 2009; Suazo, 2009; Vander Elst et al., 2016). Given the aforementioned, these imbalances can be explained as psychological contract breaches (Morrison & Robinson, 1997), and may lead to employees responding negatively to PCB by withholding their IWB. Thus, a predictive model using SET would suggest that PCB would be negatively associated with employee voice and IWB.

Derived from SET (Blau, 1964), the central assumption of the *psychological contract theory* (PCT) (Rousseau, 1995, 2011; Rousseau & McLean Parks, 1993) is that effective psychological contracts are linked to positive attitudes and employment relationships, as well as to engaged and committed workers, which are the foremost resources critical for organisations' success (Agarwal & Bhargava, 2013). Rousseau (1995) distinguishes between two prevalent types of psychological contracts: transactional and relational. Aligned with SET, Rousseau argues that, when bounded by the transactional contract, employees value more highly the instant rewards of the

relationship, such as pay, training, and credentials in order to obtain better future employment. In contrast, employees who are party to the relational contract believe in the long-term relationship with their employer and value the relationship itself, not only the short-term gains from their employer. Furthermore, the psychological contract concept assumes that employees expect their organisations to meet a large number of obligations as part of the explicit and implicit conditions within the employeremployee relationship (Deery, Iverson, & Walsh, 2006; Morrison & Robinson, 1997; Rousseau, 1989). However, when employers fail to fulfil those obligations, psychological contract breach occurs and an imbalance in the relationship sets in (Robinson & Morrison, 2000). The breach is often perceived as a "shock that causes employees to reassess their basic commitment to the organisation" (Lee & Mitchell, 1994, p. 61). The consequences of breach include a decline in employees' in-role performance (Hartmann & Rutherford, 2015), lower work engagement (Agarwal, 2014b), decreased affective commitment (Rigotti, 2009), and lower levels of organisational citizenship behaviour (Lu et al., 2015). Thus, it may be expected that PCB will negatively influence employee voice and IWB.

1.9.2 Conservation of resources theory

In addition to SET and PCT, *conservation of resources theory (*CORT) (Hobfoll, 1989) was considered in this research to further explain relationships between variables. The main assumption of Hobfoll's (1989) CORT is that employees will strive to protect and accumulate resources. These resources are defined as "those objects, personal characteristics, conditions, or energies that are valued by the individual" (Hobfoll, 1989, p. 516), in other words, time, money, health and relationships. When these are perceived as lost, or when they are actually lost, employees may choose to withdraw in an effort to conserve their resources or to prevent further loss thereof. This theory is particularly useful in understanding discretionary, extra-role individual behaviours (Halbesleben & Bowler, 2007). Therefore, the predictive model, based on CORT, assumes that PCB and certain leadership styles may result in low levels of employee discretionary behaviours, such as employee voice and IWB, in attempts to conserve valuable resources.

1.10 Research method

In this section, the following will be presented: the research design, particulars about the respondents of the study and how they were selected, as well as the research procedure adopted for the study. This is followed by an explanation of the statistical analyses used and the way in which statistical decisions were made (cut-off scores). Lastly, ethical considerations are explained.

1.10.1 Design

This study was carried out as a cross-sectional survey. The decision to opt for a crosssectional design is based on the suitability of such designs for conducting sample surveys (Zheng, 2015). Cross-sectional studies assume the gathering of quantifiable data, at one point in time, by means of questionnaires, where such data gathering is aimed at describing a population and identifying relationships within the data (Cooper & Schnidler, 2011). As the purpose of this study was to describe the population and to investigate relationships between variables, the cross-sectional survey design was considered appropriate.

1.10.2 Respondents

The target population of this study were employees of medium-to-large South African organisations. Master of Business Leadership students were recruited to obtain access and gain permission to conduct research within these organisations. Given the existing relationships of students with specific organisations (some students were employees in these organisations), access to the organisations for the purposes of conducting surveys was, in general, obtained without difficulty. Therefore, the sampling of companies was based on convenience. The rationale behind the selection of medium-to-large organisations was based on the assumption that it is more likely that formalised processes and practices will exist in bigger organisations than in organisations of a smaller size, and that these organisational features and practices are typically observable, which might make reporting more uniform. The organisations that participated in the study represented a wide spectrum of state-owned and private sector companies.

The target population for this study included all employees, irrespective of race, ethnicity, gender, age, level of education and position in the company. There was only one exclusion criterion set for the sampling, and this was that all respondents should

be able to converse adequately in English, as the questionnaire was composed in the English language only. Respondents (employees) were randomly selected from personnel lists provided by the staff in the human resources departments of the various participating organisations. For each of the organisations, random samples were drawn until complete data had been collected for the target of 60 respondents. Although the sampling process was not perfect, an attempt was made to make the selection of respondents as random as possible, given the operational realities of recruiting respondents.

The final number of the respondents reflected in the different parts of this study is constant. Data was collected from 620 respondents, of which 313 were males (50.5%) and 301 were females (48.5%). Of this sample, most respondents, 440, were Black (71%), followed by 103 White respondents (16.6%), then by 42 Coloured respondents (6.8%) and finally, by 28 Asian respondents (4.5%).

In terms of education level, the majority in the sample, 254 respondents (41%), had a higher degree or diploma. Meanwhile, 203 respondents (32.7%) had obtained their first degree or diploma, 138 respondents (22.3%) had matric (senior certificate), and 19 respondents (3.1%) had less than 12 years of education. It could thus be reasonably expected that most of the respondents would be able to answer questionnaires with a high degree of comprehension.

The respondents were involved in core business (299 employees - 48.2%) and support services (311 employees – 50.2%). As far as positions in the company are concerned, the respondents were spread across all levels. The reported majority were employed in junior management roles (210 respondents – 33.9%), followed by middle managers (197 respondents – 31.8%), semi-skilled (34 respondents – 21.6%), and senior managers (45 respondents – 7.3%). Corresponding with educational level, 22 respondents (3.5%) indicated that they performed unskilled work.

The sample was also representative in terms of age. The youngest respondent was of 21 years of age and the oldest was 64 years of age, providing the sample's mean of 37.81 years old (SD \approx 9).

The respondents' tenure in their organisations ranged between 1 and 42 years, with an average of around seven years of service (SD \approx 6). This implies that most respondents were well capable of reporting on organisational practices.

It was concluded that the respondents in this study represented a wide spectrum of the South African workforce, demographically aligned with the data from Statistics South Africa (2020).

1.10.3 Research process

The research project unfolded systematically, starting with the conceptual section (Chapters 2, 3 and 4) comprising the literature reviews on independent, endogenous, exogenous and dependent variables of the conceptual model. The empirical section (Chapters 5, 6, 7 and 8) then followed. The analyses of relationships between independent and dependent variables were incremental, firstly dealing with single antecedents before dealing with the antecedents as groups, and finally combining groups of antecedents to predict the dependent variable.

The first step in this research was to learn about the variables and to determine how they might relate to each other. This step resulted in the conducting of a literature review, which is presented across three articles. Articles 1 and 2 (Chapters 2 and 3) followed a conventional method of critical review, while Article 3 (Chapter 4) is presented in the style of systematic literature review. In these literature reviews, four of the most popular and comprehensive academic databases in Business Management, namely EBSCOHost, Google Scholar, ProQuest and Sabinet, were consulted in the search for the relevant sources. Preference was given to full-text articles published in peer-reviewed academic journals. In addition, the books published by seminal authors in the field, as identified during the review of articles, were consulted. The retrieved articles provided conceptual clarity as well as the background to understanding ways in which the research variables relate to each other. The sources of the literature also informed the building of the appropriate hypotheses embedded in the theory.

The next step was to determine the methodology for the study. This included the choice of instruments, and these are presented below, in Table 1.

Once the methodology had been decided on, the researcher submitted an application for clearance from the Research Ethics Review Committee (GSBL CRERC). The Ethics Clearance Certificate Ref#: 2019_SBL_001_CA was granted to the researcher.

Once ethical clearance had been obtained, data collection commenced. The data was captured from randomly selected employees of 11 South African organisations. The

total sample was comprised of 620 respondents. Commencing with data analyses was the next step.

Combining the literature-based information and the outcomes of the analyses resulted in four individual empirical articles (4 to 7).

The final part of this study entailed composing the concluding chapter, Chapter 9, which summarised the results of the thesis, accompanied by a discussion of the conclusions drawn from this research. The limitations of the study, as well as the recommendations, are also presented in Chapter 9. This thesis concludes with the presentation of a consolidated reference list and, finally, a collection of annexures relevant to this work.

With regard to the empirical research procedure, the first step was the collection of appropriate data. The data were collected in compliance with the requirements of the research ethics committee, through a process that is discussed later in this chapter. The target population consisted entirely of South African employees.

One of the envisaged outcomes of the conceptual articles was the identification of appropriate measuring instruments. The selection of measures was based on their popularity in recent research, as well as their proven reliability and demonstrated validity. Table 1 presents the instruments selected for the study.

Table 1

Construct	Instrument	Source
Transactional psychological contract	20-item Psychological Contract Scale (PCS) (5 items retained)	Millward and Hopkins (1998)
Relational psychological contracts	13-item Psychological Contract Scale (PCS) (5 items retained)	Millward and Hopkins (1998)
Psychological contract breach and violation	9-item Psychological Contract Breach and Violation Scale	Robinson and Morrison (2000)
Supportive, constructive, defensive, and destructive employee voice	20-item Employee voice Questionnaire	Maynes and Podsakoff (2014)

Research constructs, instruments, and sources

Construct	Instrument	Source
Innovative work behaviour	14-item IWB questionnaire	Kleysen and Street (2001)
Transactional leadership style	5-item Transactional Leader Behaviour Factor	Podsakoff et al. (1990)
Transformational leadership style	24-item Transformational Leader Behaviour Factor (6 items retained)	Podsakoff et al. (1990)
Directive leadership style	10-item questionnaire comprised of two complementary (6-item and 4-item) measuring scales	Pearce and Sims (2002) (6- item) and Hwang et al. (2015) (4-item)
Empowering leadership style	10-item questionnaire	Ahearne et al. (2005)

Source: Author

In order to decrease the length of the total questionnaire, the number of items in some of the instruments were reduced. This was achieved by selecting only those items which had the highest factor loadings within their respective scales. This procedure was also used by Bateman and Crant (1993), as well as by Strydom (2013) and Seibert et al. (2001), who reported evidence for the validity and reliability of the shortened scales.

Figure 2 represents the operationalised model explaining the relationships between innovative work behaviour, its predictors, and the leadership style as a moderator between psychological contract breach and employee voice. In Figure 2, the concepts are operationalised and appear as the instruments that were used for the measurement of the constructs in the study.

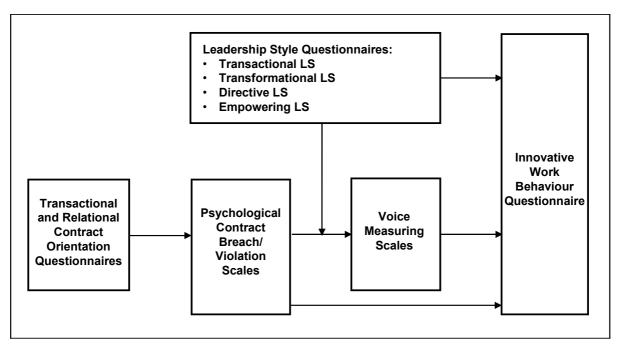


Figure 2: Operationalised model of IWB and its antecedents (Source: Author)

Meeting the goals of the empirical articles (Chapters 5, 6, 7 and 8) was approached in a stepwise manner. Firstly, descriptive statistics of respondents were calculated and analysed. The test for normality of the collected data was analysed in terms of skewness and kurtosis. The reliability and validity were calculated next, followed by calculation of Pearson product-moment correlations. Finally, regression analyses were performed, as well as testing for moderation, which followed procedures suggested by Fairchild and MacKinnon (2009).

The research will be concluded by establishing connections between seven articles and research objectives, and by reporting on the experienced challenges. The recommendations for future research are also provided in the final chapter.

1.10.4 Statistical analyses

The statistical analyses served two main objectives, namely, to assess the suitability of the data for analysis and to test the relationships between the independent and dependent variables. Apart from a few manual calculations, IBM SPSS Statistics was mostly used to perform these analyses (IBM Corp., 2020).

Firstly, descriptive statistics of the respondents were calculated, and subjectively interpreted, in order to reach some conclusion as to how well these mirrored the populations they were supposed to represent. Information from StatsSA (Statistics South Africa, 2020) was consulted as part of the drawing of conclusions.

The testing for normality of the collected data was analysed in terms of skewness and kurtosis. Skewness and kurtosis scores were interpreted following the guidelines of Field (2009). If the observed SPSS value divided by the standard error of that value is larger than 1.96, or smaller than -1.96, the data can be interpreted as deviating seriously from normality.

The reliability was calculated using the Cronbach's alpha coefficient. In line with the recommendations of Pallant (2013), the cut-off points were scores of: > 0.9 (excellent), 0.9 > 0.8 (good), 0.8 > 0.7 (acceptable), 0.7 > 0.6 (questionable), 0.6 > 0.5 (poor), < 0.5 (unacceptable), and all instruments were assessed for internal consistency level. In this study, reliability was accepted as being satisfactory where the alpha scores exceeded 0.70, with scores above 0.80 being accepted as desirable (Pallant, 2013).

For factorial validity, the data were first analysed for adequacy. Kaiser–Meyer–Olkin's measure of sampling adequacy (KMO) and Bartlett's test of sphericity were performed, and the results were considered acceptable when the KMO scores were excellent (>0.90) Field (2009), and where Bartlett's test value was significant (p<.001) (Pallant, 2013). When analysing factor loadings, the absence of significant cross-loadings was interpreted as indicative of factorial validity.

Pearson product-moment correlations (r) were calculated. Correlations with a significance value of less than .01 were deemed as significant (given the relatively large sample), with r < .10 deemed insignificantly small, .10 < r > .29 or -.10 < r > .29 as small, .30 < r > .49 or -.30 < r > -.49 as medium, and .50 < r > 1.0 or -.50 < r > -1.0 as large (Cohen, 1988).

Regression analyses were also performed. In this study, the total size of the regression coefficient was of less concern, with the focus primarily on the significance of the beta values of the different predictors. Significant predictors (p < .01) were considered as unique and substantial contributors to the variance in the dependent variable.

Moderation was tested based on the procedures suggested by Fairchild and MacKinnon (2009), which are well aligned with the recognised structure suggested by Baron and Kenny (1986). This method encompasses doing a regression without including the moderator as a variable in that regression (Model 1), and, thereafter adding the moderator (Model 2), and finally adding the moderator and the interaction effect (predictor variable x moderator; Model 3). In general, the interest is in ΔR^2 , using

Model 1 as a baseline model. If ΔR^2 is positive and significant across models, this suggests improved models, and the specific importance of adding the additional variable. In the later models, the significance of the beta values was interpreted. Should the moderator directly predict the dependent variable (Model 2), this is representative of a direct effect, making it an antecedent to the dependent variable. Should the interaction between the moderator and any sub-component in the tested model be significant (Model 3), this is representative of an independent variable moderating the relationship between that sub-component and the dependent variable.

1.10.5 Ethical matters

All standard ethical guidelines regarding interaction with respondents, as well as the management of data collection and access to such data, were done in accordance with the requirements set out by UNISA's Graduate School of Business Leadership.

Studying the effects of psychological contract breaches could be viewed as a sensitive matter. Therefore, the researcher diligently adhered to several general principles. Firstly, confidentiality was emphasised in the consent process. As the responses to questionnaires were anonymous, the respondents were not required to sign the consent form. Rather, their willingness to participate, in the sense of completing the survey, was deemed to constitute consent. Secondly, to further ensure confidentiality and anonymity, the stack of completed survey forms was shuffled numerous times. Lastly, once both the data being captured electronically and data integrity had been verified for future statistical manipulation by the researcher, all the hard copies of the questionnaires were destroyed. The electronic data was codified and stored in a password-protected computer.

Once the researcher had obtained permission from the Research Ethics Review Committee of the Graduate School of Business Leadership (GSBL) at the University of South Africa (2019_SBL_001_CA dated 04 February 2019) for the research to continue, Master of Business Leadership (MBL) students were recruited as research assistants to collect data. Students were requested to target medium-to-large organisations where they would have access to at least 60 employees. The organisations were therefore entered into the study through convenient sampling. Once approval to conduct the research within the organisations had been obtained from the respective leaders of the organisations, a list of employees was acquired from

each organisation's human resources department and respondents were selected randomly from the list. The selected/prospective respondents were invited to a meeting at which research assistants explained the purpose and the procedures of the research. Employees were informed as to the nature of their participation, including the fact that participation was completely voluntary. Those who agreed to participate were then provided with a consent form which detailed all the customary ethical issues, including confirmation regarding the anonymity and confidentiality, the right to withdraw from participation at any time without any explanation or any adverse effects, and the fact that the data would be used for research purposes only. Following consent, hard copies of the questionnaires were handed to the respondents. No data that could identify the respondents were collected. Following the collection of the data at the various organisations, it was captured by the research assistants and merged into the database used for this study by the principal investigator – the PhD candidate. No adverse effects were reported, nor incidents that could possibly threaten the integrity of the data collection process.

1.11 Chapter division

Chapter 2 to Chapter 8 report on Article 1 to Article 7, with each chapter dedicated to one specific article. Chapter 9 will deal with closing remarks, which include a summation of the thesis results and a discussion of the conclusions drawn from this research. The limitations of the study, as well as the recommendations, will also be presented in Chapter 9. This document will close with the presentation of a consolidated reference list and, finally, a collection of annexures relevant to this work.

CHAPTER 2: CONCEPTUALISATION OF PSYCHOLOGICAL CONTRACT: DEFINITIONS, TYPOLOGIES AND MEASUREMENT

Presented from the next page is the article with the following reference:

Botha, L., & Steyn, R. (2021) Conceptualisation of psychological contract: Definitions, typologies and measurement. *Journal of Social Science Studies, 8*(2), 1-20. https://doi.org/10.5296/jsss.v8i2.18703

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Article 1: Conceptualisation of Psychological Contract: Definitions, Typologies and Measurement

Abstract

Background: Psychological contracts, and particularly the honouring of these contracts - are central to employee behaviour and organisational success. The interest of academics and practitioners in this construct is therefore understandable. However, due to the immense amount of information on the topic, a comprehensive review of the literature is necessary. Aim: The aim of this article is to present a critical review on the conceptualisation of the psychological contract, distilling and operationalising the concept, to ensure that debate and future research are linked to a dominant body of knowledge. Setting: Present literature on psychological contracts is fragmented as no conceptual standardisation exists. Method: A comprehensive literature review was conducted to obtain a large quantum of conceptualisations of the construct and evaluate these for breadth of adoption, consensus, and operationalisation. Results: After reviewing reputable sources published between 1960 and 2020, a standard definition proposed, the most recognised typologies specified, and sound measures identified. It was found that Rousseau's (1995) definition and typologies (transactional and relational contracts) are still widely used, and that the measuring scale for transactional and relational contracts by Millward and Hopkins (1998) demonstrates good psychometric properties and broadly utilised. Conclusion: Since its inception, several amended definitions, typologies, and measurement of the psychological contract have been presented. Nonetheless, the original conceptualisations still seem to prevail. Managerial implications: Researchers and practitioners are now aware of the most widely adopted definitions, typologies and measuring instruments relating to psychological contract and these should guide them in future discussions and research in the field.

Keywords: Psychological contract, Psychological contract breach, Conceptualisation, Definition, Typology, Psychometric assessment

1 Introduction

Gaining the voluntary cooperation of workers has been a challenge faced by many organisations for more than a century. This is mostly due to the absence of effective control systems which would oblige a worker to wilfully contribute to the organisation

(Rousseau, 2011). It is commonly accepted that successful organisations depend on workers who volunteer their support. In the absence of effective formal control systems, vast body of existing and currently ongoing research on psychological contracts (PC) attempts to address the "fundamental, chronic, and, at times, acute dilemma" of voluntary cooperation (Rousseau, 2011, p. 191).

Cullinane and Dundon (2006) argue that significant interest from academics and practitioners in the PC concept is urged by a continuous need on the part of organisations to sustain employee motivation and commitment. Effective PCs are linked to positive employee attitudes and employment relationships, as well as to engaged and committed workers (Kutaula, Gillani, & Budhwar, 2020; Schalk & De Ruiter, 2019; Soares & Mosquera, 2019; Tekleab, Laulié, De Vos, De Jong, & Coyle-Shapiro, 2020), all of which are foremost resources that become critical for organisational survival and success (Agarwal & Bhargava, 2013).

Despite the fact that the concept of the PC was born outside the human resources management (HRM) area, it has become a "major analytical device" in promoting HRM best practice (Cullinane & Dundon, 2006, p. 113). This analytical device is empirically viable only if the conceptualisation and measurement of the PC are somewhat standardised. However, the measurement - and, by implication, conceptualisation of the PC are disparate, as asserted by Rousseau and Tijoriwala (1998, p. 680), who state that "in the past 10 years, field research into [the] content and dynamics of psychological contracts in organizations has generated numerous published studies with almost an equal number of somewhat distinct assessments". Although this assertion relates to the early stages of PC research, nowadays, "the lack of guidance for managers and organizations as to how they should practically use the psychological contract to manage the employment relationship" still remains a challenge (Conway & Pekcan, 2019, p. 11). Such claims call for conceptual clarity and standardised assessment. This article will address the problem of the disparities highlighted above regarding the conceptualisation and measurement of the PC by presenting, integrating, and synthesising the literature on the topic. The evolution of the PC concept will be discussed next, with reference to the way in which the concept is defined, organised into typologies, and measured. Important in this regard is to address the matter of psychological contract breaches (PCB), as this is a variable often measured when PCs are researched (Paillé et al., 2016; Payne, Culbertson,

Lopez, Boswell, & Barger, 2015; Robinson & Morrison, 2000; Robinson & Rousseau, 1994; Rousseau, 2011; J. A. Thompson & Bunderson, 2003; Tziner, Felea, & Vasiliu, 2017). Thus, PCB will be also discussed.

2 Defining Psychological Contracts

The history of defining the PC concept can be divided into two periods (Banu, 2017; Conway & Briner, 2009): the years before Denise Rousseau published her work "Psychological and implicit contracts in organizations" (1989), and the years after. Since the initial and her other seminal publications (ref. Rousseau, 1989, 1990, 1998, 2001), the definition of the PC as a concept has not evolved significantly and, as it will be demonstrated below, it can be concluded that subsequent and present-day theorists and researchers have adopted Rousseau's (1989) orthodox conceptualisation without significant modernisation or modification.

Even though Rousseau's comprehensive contribution is widely acknowledged as the standard, contemporary researchers still recognise others' inputs towards the development of the PC theory. Notable are the names of Argyris (1960), Levinson, Price, Munden and Solley (1962) and Schein (1965). Their definitions of the PC build on each other, are related in many ways, and will be presented first. These will be followed by definitions created by researchers, post-1998, who clearly adopted the contribution of the 'Rousseau school' (Guest, 1998, p. 673) in defining the PC.

– Argyris was the first to propose the term "psychological work contract" – this in his seminal work, "Understanding organizational behaviour", published in 1960. Although Argyris does not provide a clear definition, his description of features of the PC prompted later research towards the necessity of an exchange of some kind, and the existence of the implicit belief (Conway & Briner, 2009). Argyris (1960) stated that the term "psychological work contract" describes the nature of the relationship between the [employees] and the [managers] as changing and developing, and which is highly dependent on the [managers'] leadership behaviour: "Since the [managers] realize the employees in this system will tend to produce optimally under passive leadership, and since the employees agree, a relationship may be hypothesized to evolve between the employees and the [managers] which might be called the 'psychological work contract'. The employee will maintain high production, low grievances, etc., if the [managers] guarantee and respect the norms of the employee informal culture (i.e.,

let the employees alone, make certain they make adequate wages, and have secure jobs). This is precisely what the employees need" (Argyris, 1960, p. 97).

- Levinson et al. (1962) first used the original term "psychological contract" in their book "Men, Management and Mental Health". They defined the psychological contract as "a series of mutual expectations of which the parties to the relationship may not themselves be even dimly aware but which nonetheless govern their relationship to each other" (Levinson et al., 1962, p. 22). The authors continue to describe elements of the contract and state: "The psychological or unwritten contract is a product of mutual expectations. These have two characteristics: (a) they are largely implicit and unspoken, and (b) they frequently antedate the relationship of person and company" (Levinson et al., 1962, pp. 21–22). This contention makes a valuable contribution to understanding of the PC. The underlying assumption here is that on the unconscious level psychological needs of both, employees and employers, play an important role in defining the psychological contract. Furthermore, the fulfilment or failure to reciprocate affects mental health and well-being, where specifically unfulfilled psychological needs lead to frustration, anger and hostility (Conway & Briner, 2009). Thus, defining reciprocity in terms of satisfaction of mutual needs between two parties to the agreement, and linking it to the PC concept is an important perspective, which influenced subsequent approaches in the development of the PC (Schalk & De Ruiter, 2019).

– Schein (1965, p. 11) explains the PC from a perspective of the individual having "a variety of expectations ... not written into any formal agreement between employee and organisation, yet they operate powerfully as determinants of behaviour". Schein gives credit to both Levinson et al. (1962) and Argyris (1960) for their acknowledgement of the role of mutual expectations that individuals and organisations have of each other. He argues, that "these expectations not only cover how much work is to be performed for how much pay, but also involve the whole pattern of rights, privileges, and obligations between worker and organization" (Schein, 1965, p. 11). Schein sees the psychological contract as a path to a better understanding of the employment relationship. Schein's contribution in identifying the PC as central to organisational behaviour remains of value:

"It is my central hypothesis that whether a person is working effectively, whether he generates commitment, loyalty, and enthusiasm for the organization and its goals, and

whether he obtains satisfaction from his work, depend to a large measure on two conditions: 1. The degree to which his own expectations of what the organization will provide him and what he owes the organization matches what the organization's expectations are of what it will give and get. 2. Assuming there is agreement on expectations, what actually is to be exchanged – money in exchange for time at work; social need satisfaction and security in exchange for work and loyalty; opportunities for self-actualization and challenging work in exchange for high productivity, quality work and creative efforts in the service of organizational goals; or various combinations of these and other things" (Schein, 1965, pp. 64–65).

These two eminent assumptions of Schein's – the first being the balance between employee's expectations and what he gets in return from his organisation, and second being the continuation of an exchange, either economic or social, or both – paved the way for how the PC concept developed in the years to follow.

The next milestone in the development of the PC is attributed to the work of Denise Rousseau. Conway and Briner (2009, p. 77) reference Rousseau's work as "the greatest influence on psychological contract research". Originally, in her first seminal paper, titled "Psychological and implied contracts in organizations", Rousseau (1989, p. 123) defined the PC as "individual's beliefs regarding the terms and conditions of a reciprocal exchange agreement between the focal person and another party. Key issues here include the belief that a promise has been made and a consideration offered in exchange for it, binding the parties to some set of reciprocal obligations".

Post 1989, both independently and jointly with her colleagues, Rousseau produced and inspired a number of papers providing more refined definitions of the concept. Listed below are definitions attributed to the Rousseau school (Guest, 1998, p. 673):

1994: Psychological contracts can be "construed as a boundless bundle of obligations subjectively held... and ... comprised of a belief that some form of a promise has been made and that the terms and conditions of the contract have been accepted by both parties" (Robinson & Rousseau, 1994, p. 246).

1994: "Psychological contracts refer to beliefs that individuals hold regarding promises made, accepted, and relied upon between themselves and another" (Rousseau & Wade-Benzoni, 1994, p. 466).

1995: "The psychological contract is individual beliefs, shaped by the organization, regarding terms of an exchange agreement between individuals and their organization" (Rousseau, 1995, p. 9).

1996: The psychological contract comprises employees' "beliefs about what they are entitled to receive, or should receive, because they perceive that their employer conveyed promises to provide those things" in exchange for their contributions (Robinson, 1996, p. 575).

1997: "A psychological contract is commonly defined as an employee's beliefs about the reciprocal obligations between that employee and his or her organization, where these obligations are based on perceived promises and are not necessarily recognized by agents of the organization" (Morrison & Robinson, 1997, p. 229).

1998: A psychological contract is "an individual's belief in mutual obligations between that person and another party such as an employer (either a firm or another person)" (Rousseau & Tijoriwala, 1998, p. 679).

Common to the above definitions is that employees hold the belief that, in exchange for consideration promised by their organisation, they are bound to a set of reciprocal obligations, and vice versa.

In the following years and to date, while grounded in the Rousseau school conceptualisation, the lens through which the PC is explained and theorised has mainly remained unchanged.

The exploration of recent works on the PC shows that Rousseau's conceptualisation is still well accepted and adopted (see Boey & Vantilborgh, 2016; Festing & Schäfer, 2014; Griep & Vantilborgh, 2018; McDermott, Conway, Rousseau, & Flood, 2013). McDermott et al. (2013, p. 290) – and the presence of Rousseau in this group is specifically noted – provide a more recent definition that resembles Schein's notion of owing in its explanation of the concept, saying that: "psychological contracts refer to what employees believe they owe their employer as well as what they believe they are owed in return". Another definition, close to Rousseau's original, is the version by Daoud Abu-Doleh and Daddi Hammou: "A psychological contract is an implicit contract between an individual and his organization that specifies what each expects to give and receive from each other in their relationship" (2015, p. 36). Griep and Vantilborgh (2018, p. 141) extend Rousseau's (1995) definition of the PC "as a continuous exchange of a set of reciprocal obligations, arising from explicit and implicit

promises, between the employee and the employer", adding "...which shapes the current and future employee-employer exchange relationship".

Despite advances in PC development in recent years, the lack of clarity in terms of how the concept is defined remains a cause for concern (Hansen, 2018). In their attempt at providing a sound foundation for clarity, Rousseau, Hansen and Tomprou (2018) define the PC as a "cognitive schema, or system of beliefs, representing an individual's perceptions of his or her own and another's obligations, defined as duties or responsibilities one feels bound to perform" (2018, p. 72).

From the aforementioned, it is difficult to stay away from the work of Rousseau when defining the PC, and the development of the PC concept seems not to have evolved much beyond her seminal work. As such, defining PC as "individual beliefs, shaped by the organization, regarding terms of an exchange agreement between individuals and their organization" (Rousseau, 1995, p. 9), would satisfy most scholars.

3 Psychological Contract Breach

Psychological contracts assume that employees expect their organisations to meet a large number of obligations as part of the explicit and implicit conditions within the employee-employer relationship (Deery, Iverson, & Walsh, 2006; Morrison & Robinson, 1997; Rousseau, 1989). When employees perceive that the organisation or its agent has failed to uphold its obligations, psychological contract breaches (PCB) occur (Morrison & Robinson, 1997). These breaches are common in the workplace and became a norm, rather than an exception (Robinson & Rousseau, 1994).

While the PC literature often uses the terms 'psychological contract breach' and 'psychological contract violation' interchangeably, Morrison and Robinson (1997) clearly distinguish between the two constructs. These authors argue that 'breach' represents a cognitive evaluation that one's organisation has failed to fulfil its obligations, whereas 'violation' is the emotional and affective state that may follow from the individual's perception of breach. In their meta-analysis, Zhao, Wayne, Glibkowski and Bravo (2007) further report that PC breach and violation display characteristics which suggest that they are distinct and, as such, it would be important to pay specific attention to which construct is studied and measured. The focus of this paper is explicitly on breach, not violation.

A large number of empirical research papers are dedicated to the PCB and its adverse effects on organisational outcomes. A wide array of negative consequences of PCB are found to impact employee attitudes and behaviours, such as a decline in job satisfaction, decreased organisational commitment, diminished organisational citizenship behaviour, increased absenteeism and turnover intention (Hartmann & Rutherford, 2015; Kakarika, González-Gómez, & Dimitriades, 2017; Kraak, Lunardo, Herrbach, & Durrieu, 2017; Lu et al., 2015; Suazo, 2009; Vander Elst et al., 2016). Various types of psychological contract will be discussed next.

4 Psychological Contract Typologies

Although there are a multitude of forms of the psychological contract that have been featured in the theoretical and empirical research over the past three decades, there are four types that are commonly accepted by academia. These refer to transactional, relational, hybrid (balanced) and transitional psychological contracts. Of these four, the transactional and relational types of the PC are the most important forms of the employment relationship (Alcover, Rico, Turnley, & Bolino, 2017). Being at the forefront of the research on PC, it is not surprising that the Rousseau school played a major role in differentiating between various PC types. Presented below is the development of the PC mainstream typology, followed by some (albeit minor) developments of alternative forms.

4.1 The Rousseau School Typology

Rousseau and McLean Parks (1993) and Rousseau and Wade-Benzoni (1994) distinguish between two major types of psychological contracts, which, they argue, have become common in the workplace. These two types of psychological contracts (transactional and relational) connect the ends of the contractual continuum (Macneil, 1985) where, on the one hand, *transactional* contracts focus on short-term and monetizable (economic) exchanges and can be characterised as "a fair day's work for a fair day's pay" (Rousseau & Wade-Benzoni, 1994, p. 466). Examples of such contracts are commission-based sales, temporary employment and independent contracting (Rousseau & McLean Parks, 1993). On the other side of the continuum are *relational* contracts, which involve open-ended relationships characterised by considerable investments from both parties. For example, employees will undergo costly, time-consuming, company-specific skills training and in return will remain with the company pursuing internal career opportunities. Rousseau and McLean Parks (1993) argue that such investments involve a high degree of mutual interdependence, making employment separation difficult. Further, they emphasise the dual nature of

relational contracts. Unlike transactional contracts, which have a narrow monetary focus and are characterised by high levels of specificity (Rousseau & McLean Parks, 1993), relational contracts combine both elements of exchange, that is the socioemotional (loyalty and commitment) and the monetizable (consideration for services), and are flexible in nature (Rousseau & McLean Parks, 1993).

Exploring the differences between the two types of the PC even further, Robinson and Rousseau (1994) suggest that, when bounded by the transactional contract, the employee values the instant rewards of the relationship, such as pay, training, and credentials, in order to obtain better future employment. In contrast, employees who are party to the relational contract believe in the long-term relationship with their employer and value the relationship itself, beyond the short-term gains from their employment (Robinson & Rousseau, 1994).

Examined next is a two-item typology expanded into a four-item matrix, as theorised in the seminal paper of Rousseau (1995) titled "Psychological contracts in organizations: Understanding written and unwritten agreements". The author describes relationships between employees and employers in terms of time frames and performance requirements. 'Time frame' refers to the duration aspect of the employment relationship (i.e., short term vs. long term), while 'performance requirements' refer to the link between performance demands and employment rewards. According to Rousseau (1995), performance condition is a differentiator between relationships and transactions. The better defined the performance criteria, the more transactional a contract is. Rousseau (1995) suggests that, when considered in terms of these two dimensions, four forms of the psychological contract exist; transactional, relational, hybrid (balanced) and transitional psychological contracts, as illustrated in Table 1.

Table 1. Types of psychological contracts

		PERFORMA	NCE TERMS
		Specified	Not Specified
		Transactional	Transitional
	٦	Low ambiguity	Ambiguity/uncertainty
	err	Easy exit/high turnover	High turnover/termination
	т t	Low member commitment	Instability
E S	Short Term	Freedom to enter new contracts	
Δ	S	Little learning	
FRAMES		Weak integration/identification	
TIME		Hybrid/Balanced	Relational
Ē	E	High member commitment	High member commitment
	Term	High integration/identification	High affective commitment
	Long	Ongoing development	High integration/identification
	Ľ	Mutual support	Stability
		Dynamic	

(Source: Rousseau, 1995, p. 98)

Although Rousseau's "traditional" transactional and relational two-item typology (Boey & Vantilborgh, 2016; Vantilborgh et al., 2014) attracted the most attention from theorists and empirical researchers, the other two contract forms, hybrid (balanced) and transitional, beg a brief discussion.

The hybrid, or balanced, psychological contract is typical in knowledge organisations operating in highly competitive environments (Rousseau, 1995). This contract combines features of both forms of PC, transactional as well as relational (Dabos & Rousseau, 2004). Hybrid (balanced) psychological contracts lead to employment relationships where the employer commits to developing workers and, in return, anticipates employees' willingness to adjust to changes (Rousseau, 2004).

Unlike the balanced PC, a hybrid of relational and transactional features, transitional psychological contracts reflect a "breakdown of the employment relationship or the absence of a solid agreement between the parties" (Hui, Lee, & Rousseau, 2004, p. 312). Hui et al. (2004) argue that transitional arrangements are not uncommon during times of economic downturn, downsizing and radical changes when trust and commitment between contracting parties have eroded or ceased to exist (2004, p. 312). In more recent studies, it has been found that transitional contracts are associated with negative work outcomes, including low work engagement (Soares &

Mosquera, 2019), diminished well-being and negative work attitudes (Zolnierczyk-Zreda, 2016).

4.2 Other Typologies of the Psychological Contracts

Rousseau's work inspired further research on the PC typology and new forms of contracts appeared post-Rousseau's conceptualisations. Apart from being new, their acceptance and popularity in the general PC literature are not as broad as Rousseau's, but some brief discussion is warranted.

Ideology-infused psychological contracts are typical as part of employment relationships where the employee perceives that organisation is "obligated to demonstrate a credible commitment to and investment in a valued cause or principle" (Thompson & Bunderson, 2003, p. 574). In return, the employee is obligated to reciprocate in a way such that his or her actions will promote the organization's ability to pursue the cause. Bingham (2005) empirically found that ideology-infused contracts positively affect participation, advocacy, support of national performance, and promotion of organisational objectives and policies. Haibin (2008) suggests that ideological alignment is an independent dimension of the psychological contract. When individuals have a high level of ideological alignment with their organisations, they succeed in regulating their relations with the employer (Wang & Yu, 2011). Although it is assumed that an ideology is based on an individual's system of having particular ideological commitments (Rajabipoor Meybodi, Mortazavi, KafashPoor, & Lagzian, 2016), the roots of these sentiments have not been widely explored, either theoretically or empirically (Wang & Yu, 2011). Understandably, Rajabipoor, Meybodi et al. (2016) advocate for the necessity of developing ideological dimensions of the psychological contracts within the psychological framework.

Psychological contracts based on balanced and unbalanced social exchange are grounded in Blau's (1964) social exchange theory (Shore & Barksdale, 1998). Shore and Barksdale (1998) developed a psychological contract typology where employment relations can be evaluated based on two underlying dimensions, which include a) the degree of balance, and b) a level of obligation shared between the employer and employees. Following these dimensions, the authors proposed four types of psychological contract: mutual high obligations, mutual low obligations, employee under-obligation and employee over-obligation, as shown in Table 2 below.

Table 2. Exchange Relationships

		EMPLOYER OBLIGATIONS		
		High	Moderate to low	
DYEE TIONS	High	Mutual high obligations	Employee over-obligation	
EMPLO	Moderate to low	Employee under-obligation	Mutual low obligations	

(Source: Shore and Barksdale, 1998, p. 734)

In cases of *mutual high obligations and mutual low obligations*, these psychological contracts are considered balanced. In both, the employee and the employer are equally obligated in the exchange, despite the two types of contracts resulting in opposite outcomes. While mutual low obligation contracts yield undesirable employee outcomes, mutual high obligation contracts result in positive, desirable outcomes for the organisation, where employees demonstrate higher levels of affective involvement, intentions to stay, rather than leave, and perceived high organisational support (Shore & Barksdale, 1998).

The other two types of contracts, referred to as unbalanced, are *employee over-obligation* and *employee under-obligation* psychological contracts and are characterised by the lack of balance in employee's obligations. Between the two, the employee under-obligation PC manifests in the poorest outcomes amongst all four types. According to Shore and Barksdale (1998), the unbalanced contracts are less prevalent and rather of a temporary nature, which is in line with Blau's (1964) posits that parties to the social exchanges typically pursue the balance and that they feel that they are obliged to give something in return for what they received.

Although the development of the PC concept has evolved into a broad range of types, the transactional-relational distinction remains the most frequently used typology in the PC literature (Boey & Vantilborgh, 2016).

5 Measurement of the Psychological Contract and Breach

The review of the extant literature revealed a multitude of ways in which the PC and the PCB are measured. The disparities between existing measurement instruments are broad. Conway and Briner (2005, p. 94) point out that it is of no surprise that "there are a variety of measures for assessing both breach and the contents of psychological

contracts, showing there is no single, agreed-upon measure of either of these constructs". Freese and Schalk (2008) evaluated a wide range of questionnaires for measuring the PC. Based on their analysis of the "enormous variation" of the PC measuring instruments, the authors affirm that most questionnaires do not meet the conceptual validity criteria (2008, p. 281). In line with the seminal work of Rousseau (1989), these authors recommend that, when selecting a scale, Rousseau (1990) should be used for a short list of items, and Freese and Schalk (2008) for an extended list of items. Rousseau's (2000) instrument is also recommended as it provides scales with multiple usage opportunities.

Another group of measuring instruments is also recommended by Freese and Schalk (2008). Those instruments address specific aspects of the PC and, for this reason, can be useful, depending which on specific constructs are studied and measured. This group includes the instruments of Robinson and Morrison (2000), measuring contract breach and violation, and the instrument of Millward and Hopkins (1998), assessing specific contract orientation (relational and transactional).

Rousseau's (2000) Psychological Contract Inventory (PCI) is considered etic (Note 1) and is widely used in empirical studies (Bankins, 2015; Cassar, Briner, & Buttigieg, 2016; Hui et al., 2004; Raja et al., 2004; Scheepers & Shuping, 2011; Vantilborgh et al., 2014). It is designed to measure the quality of employment relationships utilising a conceptual framework grounded in organisational theory and research (Rousseau, 1995; Rousseau & Wade-Benzoni, 1994). The PCI assesses relational, transactional, balanced, and transitional psychological contract types. The instrument measures levels of belief in terms of employee and organisational obligations, as well as contract transitions and fulfilment.

The PCI is comprised of four sections, with 72 items in total. Each item is measured on a five-point Likert scale ranging from 1 - "Not at all" to 5 - "To a great extent". Respondents are asked to answer questions related to each section. Sample items in each section follow below:

Employee Obligations (28 items in total):

"To what extent have you made the following commitments or obligations to your employer?"

- (1) ... I have no future obligations to this employer
- (2) ... I only perform specific duties I agreed to when hired.

Employer Obligations (28 items in total):

"Consider your relationship with your current employer. To what extent has your employer made the following commitments or obligations to you?"

(1) ... My employer makes no commitments to retain me in the future

(2) ... My employer is concerned for my long-term well-being.

Psychological Contract Transitions (12 items in total):

"To what extent do the items below describe your employer's relationship to you?"

(1) ... My employer doesn't share important information with its workers

(2) ... My employer demands more from me while giving me less in return.

Psychological Contract Fulfilment (4 items in total):

(1) Overall, how well have you fulfilled your commitment to your employer?

(2) In general, how well does your employer live up to its promises?

Rousseau (2000) reports average reliability, with a Cronbach's alpha of .77 across all four sections. One year prior to its public release, and in collaboration with Rousseau, Ang and Goh (1999) tested the PCI in Singapore by using the subset of items taken from the Rousseau's instrument. For this study, the three items (of the original five) per subset with the highest item-total correlations were selected and tested. The authors reported an average Cronbach's alpha of .81 across four sections with the reduced number of items (Ang & Goh, 1999). In her publication, Rousseau (2000) included reliability results for both the full and reduced versions of the PCI.

Millward and Hopkins' (1998) Psychological Contract Scale (PCS) is recommended by Freese and Schalk (2008) for measuring specific contract orientations, relational and transactional. This 33-item instrument assesses the strength of relational and transactional psychological contracts. Each is measured on a seven-point Likert scale ranging from 1 - "Strongly disagree" to 7 - "Strongly agree". The PCS incorporates 20 items related to the transactional sub-scale and 13 items related to the relational subscale.

Transactional sample items:

(1) ... I do this job just for the money

(2) ... I only carry out what is necessary to get the job done.

Relational sample items:

(1) ... To me working for this organization is like being a member of a family

(2) ... My job means more to me than just a means of paying the bills.

Millward and Hopkins (1998, p. 1541) report that all of the relational items are internally consistent, obtaining a Cronbach's alpha of .86. All transactional items were also reliably interrelated, obtaining a Cronbach's alpha of .88. The authors also add that, in both instances, all item-total correlations were above .30. Furthermore, it was found that subscale scores were negatively correlated (r=-0.61, p<.01), meaning that the higher the relational orientation, the lower the transactional orientation, and vice versa (Millward & Hopkins, 1998, p. 1542).

When selecting the instrument for measuring the PCB, Freese and Schalk (2008) recommend the measure by Robinson and Morrison (2000) as a good instrument that meets the conceptual validity criteria. Furthermore, Rousseau (2011, p. 211) indicates that the measurement instrument for breach and violation by Robinson and Morrison (2000) is developed in a "theoretically consistent fashion". The following discussion describes the instrument in more detail.

Robinson and Morrison (2000) developed a nine-item measurement scale, of which four items measure violation and the other five measure breach.

The self-reported violation, measured on a 5-point Likert scale, ranging from 1 - "Strongly disagree" to 5 - "Strongly agree", indicates the extent to which respondents evaluate how they feel about the employer's violation of the contract. Sample items include:

(1) ... I feel a great deal of anger toward my organization

(2) ... I feel betrayed by my organization.

The self-reported breach is measured by the reverse scoring of a fulfilment measure on a scale of 1 to 5 (disagree–agree). Sample items include:

(1) ... Almost all the promises made by my employer during recruitment have been kept so far (reversed)

(2) ... I feel that my employer has come through in fulfilling the promises made to me when I was hired (reversed).

Robinson and Morrison (2000) reported that the violation measure was significantly correlated with the measure of perceived contract breach at r=0.68 and p<0.01. Furthermore, considering the magnitude of this correlation, the authors conducted a factor analysis to test whether these two constructs are empirically distinct. The results

provide clear evidence of discriminant validity. All the perceived breach items loaded onto the first factor, with loadings ranging from .70 to .87. All the violation items loaded separately onto the second factor, with loadings ranging from .79 to .89 (Robinson & Morrison, 2000, p. 538).

It is interesting to note the creative approach taken in contemporary research of using fulfilment and breach scales simultaneously, combining composite and global measures. According to Zhao et al. (2007), a composite measure refers to various content items of the psychological contract – for example, training, job security and pay. The researcher will typically ask respondents to what extent the organisation has fulfilled its obligation on each item.

In the composite measure, meanwhile, each content item is considered individually, and the global measure evaluates the respondent's overall perception of how much the organisation has fulfilled or failed to fulfil its promises. A typical example of the global measure is the sample item from Robinson and Morrison's (2000) psychological contract breach scale stating: "Almost all the promises made by my employer during recruitment have been kept thus far" (reverse scored) (Zhao et al., 2007). An example of combining composite and global measures is the study by Tekleab, Laulié, De Vos, De Yong and Coyle-Shapiro (2020), where authors in one section used the composite scale by De Vos, Buyens and Schalk (2003) for psychological contract fulfilment, and in a different section, a global scale by Robinson and Morrison (2000) for breach.

Another interesting example of assessing the PC – and, particularly, a multi-party PC – is the Repertory Grid Technique (RGT). Sherman and Morley (2020) utilise RGT to better understand multi-party psychological contracts, that is where one party (in this case, an employee of the courier company concerned) evaluates the multiple expectations an individual holds towards the other three parties in the "tetradic employment relationship" (Sherman & Morley, 2020, p. 27). The authors confirm that various contributing parties in the employment relationship each hold different beliefs of what the other parties are obliged to provide and what is expected in return, which is aligned with sentiments proposed by Schalk and Rousseau (2001).

As the result of summarising and evaluating available instruments for the PC and PCB, it is suggested that the measurements that seem most appropriate are the PCS by Millward and Hopkins (1998) for measuring transactional and relational contracts, and the instrument of Robinson and Morrison (2000) for measuring breach and violation.

Both scales demonstrated sound conceptual foundations and good psychometric properties, lending credence to their selection in the future investigations.

6 Summary

This article contributes to the PC literature in three ways. Firstly, it offers a contemporary synthesis of the conceptualisation of the PC, considering the many ways in which it has been defined previously. Given this analysis and synthesis, it was concluded that the PC could best be defined as "individual beliefs, shaped by the organization, regarding terms of an exchange agreement between individuals and their organization" (Rousseau, 1995, p. 9).

Secondly, it provides an updated and comprehensive summary of the types of PC. Typologies are central to the conceptualisation of the PC, as they flow naturally from concepts (Mouton, 1996). The most widely used typologies were found to be the transactional and relational types of the PC, making up, as they do, the most important forms of the employment relationship (Alcover et al., 2017).

The last contribution lies within summarising the available measures of the PC as well as PCB, reflecting on how the measures depict the conceptual structures which underpinned their development. The measurement of the PC which seemed most appropriate was the Psychological Contract Scale (PCS) by Millward and Hopkins (1998) and the instrument of Robinson and Morrison (2000) for measuring PCB. While both scales demonstrated strong conceptual foundations and good psychometric properties, the PCS is preferred as it assesses both, relational and transactional contracts.

7 Conclusion

This paper aimed at providing a comprehensive review of reputable sources published between the years 1960 and 2020. Since the emergence of the psychological contract as a concept, several amended definitions, typologies, and measurement have been presented, but the original conceptualisations still seem to prevail. Researchers and practitioners are now aware of the most widely respected and adopted definitions, typologies and measuring instruments relating to psychological contract, which should guide them in their discussion of the topic as well as research in this field.

Notes

Note 1. Reference to the etic nature of the instrument means that the instrument assesses general constructs, typically derived from theory and meaningful to participants across variety of settings (Rousseau & Tijoriwala, 1998). In contrast, emic frameworks address factors arising out of an organisation's culture and setting-specific content as regards the psychological contract.

CHAPTER 3: PSYCHOLOGICAL CONTRACT BREACH AND INNOVATIVE WORK BEHAVIOUR: SYSTEMATIC LITERATURE REVIEW

Presented from the next page is the article with the following reference:

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Article 2: Psychological contract breach and innovative work behaviour: Systematic literature review

Abstract

Background: Innovative work behaviour (IWB) is central to organisational success and occurs despite psychological contract breaches (PCB), which "are the norm, rather than the exception" (Robinson & Rousseau, 1994).

Aim: The aim of the article is to present a comprehensive review of the conceptualisation of IWB and PCB, specifying the manner in which the concepts are defined and assessed. Consistency in conceptualisation and the standardisation of measurement should contribute to the development of the unified body of knowledge. Setting: The ways concepts are defined and assessed differs across studies, which challenges researchers and managers as no standard definitions or measurement techniques are available.

Method: A systematic literature review methodology was followed to gather data, which were analysed focusing on broad adoption, theoretical coherency and, in the case of measurement, psychometric properties.

Results: In total 14 articles were retrieved that measured the PCB-IWB link. PCB is most often defined and measured in terms of Robinson and Morrison's (2000) and Robinson and Rousseau's (1994) conceptualisations, while Janssen's (2000) framework is applied to IWB. Reliability information is reported for these measures.

Conclusion: While many definitions and measures of the constructs are used, some are theoretically more comprehensive and some are applied more than others, and these are now stipulated. Managerial implications: Managers, consultants and researchers are now empowered to enter the academic debate on the PCB-IWB link and to test substantial and complementary hypotheses that will contribute meaningfully to the existing body of knowledge.

Keywords: Psychological contract breach, innovative work behaviour, systematic literature review, conceptualisation, psychometric assessment

Introduction

Organisations rely on innovation as a key source of competitiveness and overall organisational success (Bos-Nehles et al., 2017; Sanz-Valle & Jiménez-Jiménez,

2018; Veenendaal, 2015). In order for innovative strategies to be successful, employees' behaviours must be aligned with such strategies (Bos-Nehles et al., 2017), therefore "one option for organisations to become more innovative is to encourage their employees to be innovative" (Agarwal, 2014, p. 43). Of note here is that a large part of the needed innovation is achieved beyond research and development departments with organisations relying on ordinary employees for creativity and innovative thinking (Janssen, 2000; Scott & Bruce, 1994). These individuals, operating 'close to the ground', are an invaluable source of information on trends in the market, changes in competition dynamics, opportunities for operational improvements and other important insights. For organisations to benefit from these insights, employees must be willing to engage in innovative work behaviour (IWB) (Akhtar, Bal, & Long, 2016; Milliken, Morrison, & Hewlin, 2003; Morrison, 2011; Zagenczyk et al., 2015). As IWB denotes discretionary actions which go beyond the prescribed and are often not directly or explicitly recognised by the formal reward system (Janssen, 2000, p. 288), managers have the important task of facilitating such behaviour, which already forms part of recognised management practices (Bos-Nehles et al., 2017; Sanz-Valle & Jiménez-Jiménez, 2018; Veenendaal, 2015). However, understanding of IWB and how it can be influenced and shaped is fragmented and limited (Bos-Nehles et al., 2017).

When studying innovation, the general literature reports many factors which prevent employees from engaging in IWB. Firstly, organisational constraints, including lack of organisational support and leadership, as well as bureaucracy and the limited availability of resources. Secondly, individual or group constraints, including individual's unwillingness and resistance to change, job stress, destructive competition between group members and interpersonal conflicts (Caniëls & Rietzschel, 2015; Hon & Lui, 2016).

Psychological contract breach (PCB) – the construct of interest in this study – was not mentioned in the sources consulted in the preliminary literature review. The PC concept assumes that employees expect their organisation to meet a large number of obligations as part of the explicit and implicit conditions within the employee-employer relationship (Deery, Iverson, & Walsh, 2006; Morrison & Robinson, 1997; Rousseau, 1989). PCB occurs when employees believe that the organisation or its agent has

failed to uphold its obligations (Morrison & Robinson, 1997). Several studies report findings confirming the critical role of met expectations in affecting employee behaviours (Flood, Turner, Ramamoorthy, & Pearson, 2001). While the PC literature often uses the term psychological contract breach and violation interchangeably, Morrison and Robinson (1997) clearly distinguish between the two constructs. Authors argue that breach is a cognitive evaluation that one's organisation has failed to fulfil its obligations, whereas violation is the emotional and affective state that may follow from the individual's perception of breach. In their meta-analysis Zhao, Wayne, Glibkowski and Bravo (2007) further report that PC breach and violation display characteristics which suggest that they are distinct, and as such it would be important to pay a specific attention to which construct is studied and measured. The focus of this paper is explicitly on breach, not violation.

A significant amount of research literature is dedicated to PCB and its adverse effects on organisations. In their meta-analysis, Zhao, Wayne, Glibkowski, and Bravo (2007) posit that PCBs are associated with attitude-related (job satisfaction, turnover intention and organisational commitment) and behaviour-related work outcomes (organisational citizenship behaviour and in-role performance). Similarly, as reported by another stream of research (Hartmann & Rutherford, 2015; Paillé et al., 2016; Raja et al., 2004; Rigotti, 2009; Suazo, 2009; Vander Elst et al., 2016), job satisfaction, decreased organisational commitment, diminished customer-orientated and co-worker-orientated citizenship behaviours, increased absenteeism and actual employee turnover add to a broad range of negative consequences of PCB. Although research on the effects of PCB on IWB is scant studied under conditions of PCB, nearly all researchers report that PCB correlates negatively with IWB (Li et al., 2014; Ng et al., 2010; Vander Elst et al., 2016), which is consistent with findings reported in the extant literature.

Some studies, however, show that negative situations can foster innovation and encourage employees' innovative behaviours. Yang and Hung (2015) found that (negative) emotions such as anger or hostility can foster idea-generation, which forms part of IWB. Innovation is also triggered when employees experience personal confrontations or organisational uncertainty (Van de Ven, 1986). Despite the negative outcomes generally associated with PCB, it may also lead to positive outcomes such as employees' creativity in search for organisational improvements (Zhou & George,

2001). Zhou and George (2001), however, assert that the organisational context is a key in determining the nature of employees' perceptions, and as such, managers who have an influence on context, may be instrumental in linking breach with innovation.

The possibility of PCB resulting in positive employee outcomes, specifically of a behavioural nature, suggests two scenarios – one is probable and the other exceptional. It is apparent that PCB generally results in negative organisational outcomes and this is well supported by literature. However, there is also a small number of research reports which advocate that PCB may have positive consequences (Kiazad et al., 2014; Van de Ven, 1986), including innovation (Niesen, Van Hootegem, Vander Elst, Battistelli, & De Witte, 2018; Zhou & George, 2001). As PCBs seem to be omnipresent and tend to become a norm (Agarwal, 2014b; Dulac, Coyle-Shapiro, Henderson, & Wayne, 2008; Jiang, Probst, & Benson, 2017; Robinson & Rousseau, 1994; Tziner et al., 2017), identifying the circumstances under which PCB has positive effects thus warrants further investigation. This will allow for the development of interventions to manage the environments in which PCB occurs and innovation is needed.

The aim of this article is comprehensively conceptualise and operationalise IWB and PCB as variables central to organisational survival and employer–employee interactional dynamics. Without clarity on how these variables are defined and measured, researchers will be unable to contribute to the present body of knowledge and, thus, will fail to manage the interaction between these variables scientifically.

Methodology

In order to ensure that the most important literature is captured in the analysis, a systematic literature review (SLR) methodology was followed. "A systematic review is a review of a clearly formulated question that uses systematic and explicit methods to identify, select, and critically appraise relevant research, and to collect and analyse data from the studies that are included in the review" (Moher, Liberati, Tetzlaff, & Altman, 2009, p. 332). Following such a process increases "methodological rigour" and provides a "reliable knowledge base by accumulating knowledge from a range of studies" (Tranfield, Denyer, & Smart, 2003, p. 220). The procedure proposed by

Nightingale (2009) was followed in which are reflected the aims and objectives of the review, the inclusion-exclusion criteria, how data were identified, as well as the plan of the analysis.

Research objective

The objective of the SLR was to comprehensively conceptualise and operationalise (through an analyses of measurement) PCB and IWB, given articles in which both constructs are measured.

Scope of the study

Only articles published from 1994 onwards were selected. This is the year of publication of the seminal paper of Scott and Bruce (1994) on IWB, after which research on IWB gained momentum (Bos-Nehles et al., 2017).

This date also corresponds with the publication of the longitudinal and definitive study of Robinson and Rousseau (1994) on PCB, which concluded that the prevalence of PCB is (very) high and it has a significant impact on workplace behaviour.

Inclusion criteria

Studies included in this review were academic articles published in peer-reviewed journals; published in English; investigating and reporting on the relationship between PCB and IWB; and were the product of the search terms "psychological contract breach"; "innovative work behaviour"; "PCB"; and "IWB".

Search process

The following keywords were used and combined with the Boolean "AND" operation: "psychological contract breach"; "innovative work behaviour"; "PCB"; and "IWB". It was specified that the keywords needed to be included in the title, abstract and/or keywords of the articles. All retrieved articles were firstly inspected for relevance, including articles which studied close proxies to the search terms. For example, studies used terms "psychological contract fulfilment" (PCF) rather than PCB and aspects of IWB such as "idea generation" were included in the analysis. The next step was to ascertain whether the constructs of PCB and IWB were defined and measured independently as variables. This implies that only quantitative research studies were considered.

As an additional step, the reference lists of selected articles were scrutinised to identify more articles which met the requirement of studying both PCB and IWB as separate variables.

Results

In the EbscoHost boutique, using the "SmartText search" option, the search yielded 25 articles. Following the same search procedure in the ProQuest databases, 16 articles were retrieved. The SCOPUS database yielded five articles. The search in Google Scholar yielded 132 results. After screening all the abstracts and removing all duplications, 21 articles remained. Following the full text screening, 13 articles met the criteria. Only one article was added following a scrutiny of the references of the 13 found articles. The total yield was thus 14 studies. None of these included a meta-analysis of the PCB–IWB link.

Presented below are the definitions of PCB and IWB, as presented in studies analysing the PCB–IWB link. Following that, the ways PCB and IWB were measured are presented, including findings on the reliability of these instruments.

Conceptualising IWB and PCB

Presented in Table 1 below are definitions of IWB and PCB and their proxies, as found in studies addressing both concepts. The definitions are presented chronologically.

Author	Constructs and proxies	Definitions/explanations of concepts
Janssen (2000)	IWB	IWB is defined as the intentional creation, introduction and application of new ideas within a work role, group or organisation, in order to benefit role performance, the group, or the organisation (p. 288).
	Proxy to PCF: Effort-Reward Fairness (E-RF)	In line with social exchange theory (Blau, 1964), when employees' efforts are fairly rewarded in their social exchange relationships, employees are willing to reciprocate with certain extra-role behaviours, such as innovative activities (p. 290).

Ramamoorthy,	IWB	Authors adopted the definition of Janssen (2000).
Flood, Slattery,	Proxy to PCF: Met	Explained as an aspect of the PC (Rousseau, 1990), met
and Sardessai	Expectations and	expectations refer to "an employee's assessment and belief that
(2005)	Obligation to	his/her expectations have been satisfied through their work
(2000)	Innovate	experience" (p. 143). While referring to Flood et al. (2001), the
	innovate	authors explain that the met expectations influence the
		employees' perceived obligations to contribute to the organisation
		by means of innovative work behaviour.
Ng, Feldman,	Proxy to IWB:	Based on Parker, Williams, and Turner's (2006) concept of
and Lam (2010)	Innovation-	proactive behaviour, innovation-related behaviour is
anu Lani (2010)	Related	operationalised as proactive idea implementation which goes
	Behaviours	beyond merely coming up with creative ideas to involve a) sharing
	Dellaviours	ideas with others and spreading the innovation throughout the
		organisation and b) working to implement those innovations
		individually or in the group (p. 745).
	РСВ	Conceptualised by Robinson (1996), when employees feel valued
		and respected by their employers, they are likely to reciprocate
		with positive attitudes and behaviours. By contrast, when
		employees perceive that their organisations have failed to fulfil
		their promises, psychological contract breach is understood to
		have occurred (p. 745).
Newton,	IWB	Authors adopted the definition of Janssen (2000).
Blanton, and	PCF	The explanation is derived from conceptualisations by Robinson
Will (2011)		and Morrison (1995) and Robinson and Rousseau (1994), stating
		that the perception of the degree of fulfilment, change, breach or
		violation of the PC refers to the instance where the employer may
		fail to live up to some aspect of their obligations and the employee,
		in turn, believes less is owed to their employer (p. 29).
Li, Feng, Liu,	IWB	No definition was provided. However, the measure by Scott and
and Cheng		Bruce (1994) was used. It is assumed that the authors subscribed
(2014)		to Scott and Bruce's definition of IWB.
	PCF	Authors adopted the definition by Henderson, Wayne, Shore,
		Bommer and Tetrick (2008), who refer to PCF as a perceived
		balance in exchange relationship between an employee and the
		organisation (p. 82).
Agarwal and	IWB	Authors adopted the definition of Janssen (2000).
Bhargava (2014)	РСВ	Authors adopted the definition of Morrison and Robinson (1997).
Agarwal	IWB	Author adopted the definition of Janssen (2000).
(2014b)	PCF	PCF is based on PC construct, which relates to the perception of
		justice of individual outcomes and encompasses not only
		obligations established via a formal or an implied contract, but also
		via more implicit means (Morrison & Robinson, 1997).
Bhatnagar	Proxy to IWB:	Based on conceptualisations of Jansen, Tempelaar, Van den Bosch,
(2014)	Management of	and Volberda (2009), management of innovation is defined as "a
	Innovation	dynamic capability that refers to the routines and processes by
		which organisations mobilise, synchronise and assimilate dispersed
		contradictory efforts, and how they allocate, reallocate,
		amalgamate and re-amalgamate resources and assets across
		differentiated exploratory and exploitative units". Some literature
		perceives the management of innovations as a vehicle to deliver
		improvements in organisational effectiveness (Bhatnagar, 2014, p.
		1401).
	Proxy to PCF:	Author adopted the definition of Saks (2006), which refers to
	Reward and	reward and recognition as "a sense of return on investments which
	Recognition	can come from external rewards and recognition in addition to
		meaningful work". It is operationalised in terms of pay raises, job
	1	

		security, promotions, more freedom and opportunities, respect from co-workers, training and development opportunities etc. (p. 1399).
Kiazad, Seibert, and Kraimer (2014)	Proxy to IWB: Work-Role Innovation	Based on the work of Axtell et al. (2000) and Welbourne, Johnson, and Erez (1998), work-role innovation is defined as "extra-role employee behaviour that involves the introduction and implementation of novel ideas to improve existing work processes and routines" (p. 536).
	PCB	Authors adopted the definition of Morrison and Robinson (1997).
Vander Elst, De Cuyper, Baillien,	IWB	Not provided, but introduced as a sub-construct within the behavioural coping reactions variable.
Niesen, and De Witte (2016)	PCB	Authors adopted the definition of Robinson and Morrison (2000), which refers to employees' perception that the employer failed to fulfil his or her side to the deal (p. 103).
Niesen, Van Hootegem, Battistelli, De Witte, and Handaja (2018)	Proxy to IWB: Idea Generation	Based on Farr and West (1990) and Hammond, Neff, Farr, Schwall, and Zhao (2011), idea generation is explained as a two-stage process; first as generation of completely novel ideas (i.e. creativity) and then as generation of adopted ideas that apply existing systems to new situations (p. 2).
	РСВ	Adapted from Robinson and Rousseau's (1994) conceptualisation, "PCB occurs when one party perceives another to have broken their promise" (p. 3).
Niesen, Van Hootegem, Vander Elst, Battistelli, and De Witte (2018)	Proxy to IWB: Idea Generation and Idea Implementation	IWB is considered "a construct that captures all behaviours through which employees can contribute to the innovation process" (De Jong & Den Hartog, 2007, p. 43). Two phases are typically distinguished in the innovation process, namely, the generation of ideas and subsequently the implementation of these ideas. Idea generation concerns the creation of ideas that are relatively new and offer an improvement or solution to problems an employee has encountered. Idea implementation refers to the adaptation and convergence of these ideas with daily work practices (p. 176).
Kim, Karatepe, and Lee (2017)	PCB Proxy to IWB: Service Innovation	Authors adopted the definition of Robinson and Morrison (2000). Based on Abbas and Raja (2015), service innovation behaviour refers to the ability of employees to generate novel ideas for service improvement and to adopt other's ideas which are new in the current workplace (p. 307).
	РСВ	Authors adopted the definition of Robinson and Rousseau (1994)
Ahmad, Donia, Asadullah, and Waris (2019)	Proxy IWB: Creative Performance	Based on Oldham and Cummings (1996), creative performance is described to be associated with the novel and unique ideas and processes which are useful for organisations to thrive in a competitive environment (p. 102).
	PCF	PCF is defined as promissory understandings and beliefs of an employee about the chances of fulfilment of the pledges made by their organisation (Rousseau, 1995) (p. 99).

Source: Author's own work

In seven of the 14 articles, the authors refer to IWB with reference to the three most recognised authors in the IWB field: Farr and West (1990, p. 9), with Janssen (2000, p. 288) adding to that, and the work of De Jong and Den Hartog (2007, p. 43). In five papers, proxies of IWB are presented, such as "work-role innovation" (Kiazad et al., 2014), "innovation-related behaviors" (Ng et al., 2010), "creative performance"

(Ahmad et al., 2019), "innovation management" (Bhatnagar, 2014) and "service innovation behavior" (Kim et al., 2017).

Although these substitute terms clearly relate to IWB, theoretically they are most likely distinct. In two papers (Vander Elst et al., 2016, and Li et al., 2014), no comprehensive definitions for IWB were presented.

Aligned with PC and PCB theorists, the definitions of PCB and PCF are consistent. In seven of the 14 articles, authors provide direct definitions of PCB as employees' perceptions regarding the extent to which the employer has failed to fulfil its promises and obligations, as found in Morrison and Robinson (1997) and Robinson and Rousseau (1994). In the other seven articles, the PCB is described as the exchange relationship between two parties in which one party, the organisation, fails to provide reciprocal returns. Although cited from various authors, the origin of these definitions again goes back to the conceptualisations of Morrison and Robinson (1997) and Robinson (1997) and Robinson and Rousseau (1994).

Operationalising IWB and PCB

Details of the measurement of IWB and PCB and their proxies are presented in Table 2 below.

Table 2: Measurement of IWB and PCB and their pro	xies
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Author	Constructs and proxies	Instruments	α
Janssen (2000)	PCF as Effort- Reward Fairness	6-item scale of VanYperen (1996, 1998)	.90
	IWB	9-item scale of Scott and Bruce (1994)	.95
Ramamoorthy, Flood, Slattery, and Sardessai (2005)	PCF as Met Expectations and Obligation to Innovate	12-item scale of Ramamoorthy et al. (2005)	.76
	IWB	9-item scale of Janssen (2000)	.94
Ng, Feldman, and Lam (2010)	РСВ	5-item scale of Robinson and Morrison (2000)	.97
	IWB as Innovation- Related Behaviours	5-item scale of Parker et al. (2006)	.83 (ave)
Newton, Blanton, and	PCF	4 of 6 dimensions of PCF – stability, scope,	All alphas >
Will (2011)		tangibility and time frame were measured with 14-item scale of Sels et al. (2004), authors developed 6-item instrument for other two dimensions – focus (5-item scale) and volition (1-item scale).	0.80
	IWB	Shortened to 8 items scale of Janssen (2000)	.92
Li, Feng, Liu, and Cheng	PCF	4-item scale of Henderson et al. (2008)	.84
(2014)	IWB	Shortened to 6 items scale of Scott and Bruce (1994)	.93
Agarwal and Bhargava (2014)	РСВ	Scale of Turnley and Feldman (1999) (based on Rousseau (1990))	.89
	IWB	9-item scale of Janssen (2000)	.92
Agarwal (2014b)	PCF	5-item scale of Robinson and Morrison (2000)	.92
	IWB	9-item scale of Janssen (2000)	.92
Bhatnagar (2014)	PCF as Reward and Recognition	10-item scale of Saks (2006)	.76
	IWB as Management of Innovations	10-item scale of Medina and Rufin (2009)	.77
Kiazad, Seibert, and	РСВ	Facet-based measure of Kickul et al. (2001)	N/A
Kraimer (2014)	IWB as Work- Role Innovation	4-item scale of Welbourne et al. (1998)	.89
Vander Elst, De Cuyper,	РСВ	Both constructs were measured using	.90
Baillien, Niesen, and De Witte (2016)	IWB	selection of items from validated original scales	.90
Niesen, Van Hootegem, Battistelli, De Witte, and	РСВ	Shortened to 4 items scale of Robinson and Morrison (2000)	.87
Handaja (2018)	IWB as Idea Generation	4-item scale from IWB instrument of De Jong and Den Hartog (2010)	.90
Niesen, Van Hootegem, Vander Elst, Battistelli,	РСВ	5-item scale of Robinson and Morrison (2000)	.82
and De Witte (2018)	IWB as Idea Generation and	4 items for IG of De Jong and Den Hartog (2010)	.87

	Idea	5 items for II of De Jong and Den Hartog	.90
	Implementation	(2010)	
Kim, Karatepe, and Lee (2017)	РСВ	5-item scale of Robinson and Morrison (2000)	.88
	IWB as Service innovation	6-item scale of Hu et al. (2009) (modified from Scott and Bruce (1994))	.87
Ahmad, Donia,	PCF	3-item scale of Rousseau (1995)	.96
Asadullah, and Waris	IWB as Creative	3-item scale of Oldham and Cummings	.95
(2019)	Performance	(1996)	

Source: Author's own work

In four of the 14 studies, the nine-item scale by Janssen (2000) was used, three adopted the ten-item scale by De Jong and Den Hartog (2010), and two used the nine-item scale by Scott and Bruce (1994). Three studies utilised the shortened versions of scales by De Jong and Den Hartog (2010) and Scott and Bruce (1994), stating the motive as practical considerations. In the remainder of the articles the proxies of IWB were measured by instruments developed by other authors. The Cronbach's alpha values varied between .77 and .95, with an average of .90. The users of Janssen's (2000) instrument report alphas varying between .92 and .94.

From the 14 studies cited, in six instances PCB was measured with the Robinson and Morrison's (2000) scale, four using the standard five-item scale and two the shortened four-item version. In most of the other studies (seven), the authors adapted scales from other researchers and in one study (see Ramamoorthy et al., 2005) the researcher developed his own scale. The Cronbach's alpha values varied between .76 and .97, with an average of .87. The users of Robinson and Morrison's (2000) scale report alphas varying between .82 and .97.

Discussion

Definitions

The definition of Janssen (2000, p. 288) is the most often used to describe IWB and reflects the multi-stage theorising. Most of the other definitions also reflect a multi-stage sequential conceptualisation of IWB, but researchers differ on the labelling of the stages as well as the number of the stages. Though often presented as discrete stages (De Jong & Den Hartog, 2010; Janssen, 2000; Kleysen & Street, 2001; Scott & Bruce, 1994), the empirical verification of this conceptualisation often fails, resulting in researchers settling for describing IWB with fewer stages or as a single construct.

Scott and Bruce (1994) contribute this to the idea that innovation is characterised by discontinued activities, where employees may be involved in several of these stages simultaneously. De Jong and Den Hartog (2010), as well as Janssen (2000), support Scott and Bruce's (1994) explanation for testing less complex models.

Some of the studies located during the scrutiny of the literature on the PCB–IWB link define proxies for IWB. Being theoretically divorced from the concept, these definitions should not be considered when defining IWB.

By example, focusing on innovation (see Ahmad et al., 2019), "creative performance" refers primarily to creativity, which represents only the initial stage of IWB. References to these proxies account to subsets of IWB, primarily the creative stage of the construct.

Given the simplicity, theoretical soundness and adoption as seminal in the field of IWB, the following definition from Janssen (2000, p. 288) is proposed as the standard definition of IWB:

IWB is defined as the intentional creation, introduction and application of new ideas within a work role, group or organisation, in order to benefit role performance, the group, or the organisation.

Unlike the disparity in defining the IWB construct, there is more consistency in defining the PCB breach. The definition used most often is that of Morrison and Robinson (1997), which evolved from Robinson and Rousseau's (1994) definition, also often referred to. This seems to be the standard definition, and as such the following definition of PCB by Robinson and Rousseau (1994, p. 247) is suggested:

PCB is the employee's perception regarding the extent to which the organization has failed to fulfil its promises or obligations.

Several proxies for PCB are presented as PCF and these are "effort-reward fairness" (Janssen, 2000), "met expectations", "obligations to innovate" (Ramamoorthy et al., 2005) and "reward and recognition" (Bhatnagar, 2014). The utility of proxies will be explained better when dealing with the global and composite measurement of PCB.

Operationalisation

In general, consistency in conceptualisation and the standardisation of measurement instruments should contribute to the development of the body of knowledge (Babbie & Mouton, 2011). With reference to PCB, Conway and Briner (2005, p. 94) state that many matters remain unresolved as "there are a variety of measures for assessing both breach and the contents of psychological contracts, showing there is no single, agreed upon measure of either of these constructs".

The measurement of IWB should focus on the single construct and not on its discreet stages (Scott & Bruce, 1994). Scott and Bruce (1994) argue that innovation comprises of discontinued activities, which are often performed by employees simultaneously It is suggested that the measure of IWB, as a single construct, proposed by Janssen (2000) should be used as the standard. As presented above, the instrument is used frequently, is theoretically aligned to most of the other researchers' thoughts in the field and has sound psychometric properties. The reported reliability of this measure varies between .92 and .94. Researchers are alerted not to use proxies of IWB (e.g. creativity, idea generation and idea implementation), as these often measure only part of the construct. Furthermore, IWB does not seem to empirically consist of discrete stages, therefore total scores rather than stage scores should be included in models (Steyn & de Bruin, 2019). This emphasises the inadequacies of proxies as measurement of IWB.

With regard to PCB the picture is more complex. Firstly, it is important to note that PCB and PCF are used as the endpoint of the same scale, with the naming convention dependent on the hypotheses being tested.

Secondly, it is important consider composite or global measures (see Zhao et al., 2007). Composite measures draw on a collection of questions related to the breach of specific expectations, such as related to training or rewards, compared to global measures, which use questions such as "Almost all the promises made by my employer during recruitment have been kept thus far" (reverse scored) (see Robinson & Morrison, 2000). Except for one article (see Kiazad et al., 2014), where the authors used a PCF composite measure of Kickul et al. (2001), all other studies sampled used

the global approach to calculating the PCB score, which is in line with Zhao et al.'s (2007) recommendation to focus on these types of measure.

Given the aforementioned, the five-item PCB measure of Robinson and Morrison (2000) is proposed, due to it seminal status, the fact that it is a global measure and the acceptable psychometric characteristics. Apart from consisting of only five items, the alpha coefficients reported varied between .82 and .97.

Conclusion

This research makes a valuable contribution to the present body of knowledge by following the SLR methodology to comprehensively summarise and critically evaluate the conceptualisation and operationalisation of two important organisational behaviour constructs. Through the analyses of studies involving the PCB–IWB link, the research distilled definitions as well as appropriate measures of each. The adoption of the conceptualisations of Janssen (2000) (IWB) and Robinson and Rousseau (1994) (PCB) is proposed, as well as the measurements provided by Janssen (2000) (IWB) and Robinson and Morrison (2000) (PCB). Given acceptance of these suggestions, the body of knowledge in the PCB–IWB link should be placed on a solid basis. Using the same concepts as well as measurements will facilitate comparisons between studies as well as improving the quality of meta-analyses.

Managerial implications

Managers are now equipped with comprehensive and theoretically sound definitions and, by implication, conceptualisations of concepts central to organisational success (i.e., IWB) and one endemic to the organisational setting (i.e., PCB). This knowledge is foundational to the management of each and, as reported above, both constructs, PCB and IWB, are related.

Additional to the definitions, managers and, more pertinently, organisational behaviour consultants and researchers are informed on the most used, empirically sound and theory-based instruments available to measure both PCB and IWB. This will not only

allow them to measure these constructs in a sound manner but also align their research to the current body of knowledge.

Limitations and suggestions for future research

This SLR focused on articles involving the PCB–IWB link. This focus seemed appropriate when the study was conducted and made the amount of information to deal with manageable. However, focusing within an SLR on PCB and IWB independently may have yielded more complete results. Future researchers are advised to follow that route should they consider similar studies. Finally, researchers are also encouraged to collect data not only through self-reporting perspective, but also through perspectives of observers; co-workers and supervisors.

CHAPTER 4: CONCEPTUALISATION OF EMPLOYEE VOICE: DEFINITIONS, TYPOLOGIES AND MEASUREMENT

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Article 3: Conceptualisation of employee voice: Definitions, typologies and measurement

Abstract

Background: Voice, as an important employee behaviour, channels ideas, concerns, and suggestions upward in the organisation and is often the only way for managers to become aware of issues and problems that, potentially, may be detrimental to the organisation's performance. Aim: The aim of this article is to present a review on the conceptualisation of voice, with the focus on the different ways in which the concept is defined, categorised and measured. This is required as a comprehensive and contemporary operationalisation of voice and will ensure that future research is linked to the dominant body of knowledge. Setting: Literature presents employee voice behaviour in divergent ways, which applies to the definition, typologies and measurement of voice. This divergence poses a challenge for researchers and practitioners alike. Method: A comprehensive literature review was conducted to obtain a large spectrum of definitions, categorisations and assessments of voice. These were examined for breadth of adoption, consensus in terms of elements and, in the case of assessment, the acceptability of psychometric properties of measuring instruments. Results: After reviewing a substantial number of the articles published in peer-reviewed journals between the years 1970 and 2019, the three most popular definitions of voice are presented, the three most common conceptualisations on the forms/types of voice identified, and three most-used measuring scales with acceptable validity and reliability acknowledged. The definition, typologies, and measuring instrument proposed by Maynes and Podsakoff (2014) seems to be the standard in voice research. Their theorising on all three aspects is well accepted and forms the basis for many recent studies on voice. Conclusion: Building on previous research, and considering recent publications, the comprehensive conceptualisation of voice is best described by the seminal work of Maynes and Podsakoff (2014), which integrates the extant knowledge on the topic and how it is operationalised. Managerial implications: Researchers and practitioners are now aware of most adopted and authoritative conceptualisations of employee voice behaviour, which should provide them with greater confidence to engage in discussions on the topic as well as in facilitating research in the future.

Keywords: employee voice, definition, typology, psychometric assessment

Introduction

As a behavioural concept, voice has attracted attention from researchers due to its pervasive characteristics and effects on organisations (Van Dyne, Ang, & Botero, 2003). It is proposed that there are two streams of research that conceptualise voice: one that studies voice as a speaking up behaviour of employees proactively offering inputs and ideas for improvements (organisational development (OD) perspective), and another that describes voice in the sense of the presence of internal organisational mechanisms, such as processes and procedures to enhance employees' participation in decision making (Human Resource/Employment Relations (HRM/ER) perspective) (Mowbray, Wilkinson, & Tse, 2015; Van Dyne et al., 2003). The OD perspective focuses on informal processes while the HRM/ER perspective focuses on institutionalised and formal processes. These divergent approaches attracted criticism due to the lack of conceptual consistency between them (Maynes & Podsakoff, 2014; Morrison, 2011). While advocating for the OD perspective in studying voice for its discretionary properties, Morrison (2011) rejects the HRM/ER approach for its reference to a varied range of formal mechanisms through which employees can provide inputs (e.g. grievance procedures, suggestion boxes, quality circles and work councils). In agreement with Morrison (2011), and while recognising the merits of both perspectives in addressing managerial implications, this article deliberately conceptualises voice from the OD perspective, focusing on informal rather than institutionalised voice. This focus is underpinned by the conviction that discretionary behaviour is essential to innovation (Bos-Nehles et al., 2017; Sanz-Valle & Jiménez-Jiménez, 2018; Veenendaal, 2015), an element fundamental to organisational survival (Agarwal, 2014b).

The article will present the concept of voice, starting with the development of definitions of voice and leading on to a description of voice typologies. Thereafter, it will present relevant instruments for measuring voice. In each case, the contributions of three of the most prominent groups of authors concerning each aspect will be discussed.

1 Definition of Voice

The concept of voice originated in the early seventies when Hirschman (1970) developed Exit-Voice-Loyalty theory. This theory proposes that customers who are dissatisfied with a company's offering – be it a service or product – have two choices: either to exit (to withdraw from the relationship) or to voice (attempt, by remaining loyal, to effect changes in that company's processes and practices). Hirschman defined voice as "any attempt at all to change, rather than to escape from, an objectionable state of affairs, whether through individual or collective petition to the management directly in charge, through appeal to a higher authority with the intention of forcing a change in management, or through various types of actions or protests, including those that are meant to mobilize public opinion" (1970, p. 30).

Following on Hirschman's work on customer dissatisfaction, the concept of voice evolved significantly. It was extended to workers of organisations and came to be perceived not only as a means of communication with management (Freeman & Medoff, 1984, p. 8), but also as an opportunity to provide "meaningful" inputs into management's decisions (Budd, 2004, p. 23).

Following an extensive literature review, it became clear that, after publication of the seminal paper on voice by Van Dyne and LePine (1998), three groups of authors dominated the way in which development of voice took place post-1998. These were Morrison (2011), Liang, Farh and Farh (2012) and Maynes and Podsakoff (2014). Their contributions are discussed below.

Morrison (2011) provides definitions of voice by various authors and these are summarised in Table 1, below.

The table leads with the definition presented as part of the seminal paper by Van Dyne and LePine (1998).

Table 1. Definitions of voice

Author	Definition
Van Dyne and LePine (1998)	Promotive behaviour that emphasises expression of constructive challenge intended to improve rather than merely criticise. Making innovative suggestions for change and recommending modifications to standard procedures even when others disagree (p.109)

LePine and Van Dyne (1998)	Non-required behaviour that emphasises expression of constructive challenge with the intent to improve rather than merely criticise (p.854)
Van Dyne, Ang and Botero (2003)	Intentionally expressing rather than withholding relevant ideas, information, and opinions about possible work-related improvements (p.1360)
Premeaux and Bedeian (2003)	Openly stating one's views or opinions about workplace matters, including the actions or ideas of others, suggested or needed changes, and alternative approaches or different lines of reasoning for addressing job-related issues (p.1538)
Detert and Burris (2007)	The discretionary provision of information intended to improve organisational functioning to someone inside the organisation with the perceived authority to act, even though such information may challenge and upset the status quo of the organisation and its powerholders (p.869)
	Verbal behaviour that is improvement-orientated and directed to a specific target who holds power inside the organisation in question (p.870)
Tangirala and Ramanujam (2008b)	Employees' expression of challenging but constructive options, concerns, or ideas about work-related issues (p.1189)

Source: Adapted from Morrison (2011, p. 376)

Morrison (2011) points out that there are three common features shared by these definitions. Firstly, the idea of voice is understood as a verbal expression of the message from the sender to the recipient. Secondly, it is understood as a discretionary behaviour; the act of voice is not an obligation nor an expected behaviour (Van Dyne, Cummings, & Parks, 1995). Finally, the intent of voice is regarded as constructive and positive in nature (Morrison, 2011).

Based on definitions appearing in the literature prior to 2011, Morrison offers an integrated, conceptualised description of voice as a "discretionary communication of ideas, suggestions, concerns, or opinions about work-related issues with the intent to improve organisational or unit functioning" (2011, p. 375). Morrison further agrees with the classification of voice by Van Dyne, Cummings and Parks (1995) as a form of "challenging/promotive" extra-role behaviour.

After Morrison, the next significant contribution in defining voice is made by Liang, Farh and Farh (2012). While viewing the concept as a mechanism of speaking up with suggestions as well as concerns, as proposed by Van Dyne, Ang and Botero (2003), Liang et al. (2012) distinguish between two opposite types of voice - promotive and prohibitive - representing a departure from the unitary approach towards multidimensional conceptualisation of voice. Liang et al.'s (2012) definition of promotive voice resonates with the original conceptualisation of voice by Van Dyne and LePine (1998) and Morrison (2011), referring to it as "employees' expression of new ideas or suggestions for improving the overall functioning of their work unit or organization" (2012, p. 74). By contrast, Liang et al. (2012, p. 75) define prohibitive voice as "employees' expressions of concern about work practices, incidents, or employee behaviour that are harmful to their organization". Introducing a conceptual boundary between two forms of voice, where promotive voice focuses on intents of realising ideas and opportunities, and prohibitive voice focuses on intents of stopping or preventing problematic initiatives from taking place, Liang and colleagues call for future explorations of these two content domains of voice.

While the definitions put forward by Morrison and Liang and his team make progress towards refining the meaning of voice, recent researchers have been in pursuit of updating the definition of the concept even further. For example, Rees, Alfes and Gatenby (2013, p. 2783) see voice as "referring specifically to employees' actual behaviour in 'speaking up' with constructive ideas that aim to improve or change the status quo". Rees et al. (2013) seem to agree with the earlier definition of Detert and Burris (2007, p. 869) who refer to voice as "discretionary provision of information with intention to improve organisational functioning", and who then add "even though such information may challenge the status quo of the organization and its power holders, is critical to organisational well-being yet insufficiently provided by employees, who see the risks of speaking up as outweighing the benefits". The link between challenging the status quo along with managerial actors within the organisation and the risks attached to speaking up is a valuable augmentation of voice concept which prompted Maynes and Podsakoff (2014) to further expand their view on voice.

In their prominent research paper titled "Speaking more broadly: An examination of the nature, antecedents, and consequences of an expanded set of employee voice behaviours", Maynes and Podsakoff (2014) evaluated and integrated previous

conceptions of voice behaviour that had come to light during the preceding 15 years. Each of these conceptions highlights specific characteristics of voice and, combined, include the following set of voice attributes: a) voice behaviour being exhibited by individual employees, b) employees not remaining silent, anonymous or neutral, c) these behaviours conspicuously staking out an employee's position relative to the status quo, and d) because others in the organization may disagree with the voicing employee's position, the possibility of voicing damaging interpersonal relationships at work (Maynes & Podsakoff, 2014, p. 88). Based on these several core attributes of voice, the authors proposed their definition of voice as an "individual's voluntary and open communication directed toward individuals within the organization that is focused on influencing the context of work environment" (2014, p. 88). Furthermore, the authors summarise that the expression of behaviour, if it is to be considered voice, needs to match the following commonly defined criteria: a) it must be communicated openly, b) it needs to be organisationally relevant, c) it must focus on influencing the work environment, and d) it needs to be directed to someone inside the organisation (2014, p. 88).

Although it seems that, in general, a consensus exists amongst researchers, there are examples of evident disparities between recent definitions of voice. Whilst the majority of definitions specify that employees' communication (as voice) is directed toward recipients within the organisation (Barry & Wilkinson, 2016; Detert & Burris, 2007; Maynes & Podsakoff, 2014), there are also definitions that include both, internal and external to the organisation, targets to whom the ideas, opinions and suggestions are directed (Bashshur & Oc, 2015). This divergence supports the recent call for further clarity on the nature, characteristics and conceptualisation of employee voice (Mowbray et al., 2015).

1.1 Discussion

Although the definitions of voice presented here share a number of common features and characteristics, the definition by Maynes and Podsakoff (2014) reflects the most prominent attributes of the concept as expressed by various authors in their works during recent decades and also represents the expanded and integrated conceptualisation of voice behaviour. For this reason, their definition of voice as an "individual's voluntary and open communication directed toward individuals within the organization that is focused on influencing the context of work environment" (Maynes

& Podsakoff, 2014, p. 88), is proposed as the anchor for the conceptual grounding of this article.

Next, various types of voice will be identified and reviewed.

2 Typologies of Voice

A number of scholars differentiated between various types of voice, most commonly characterised as constructive, considerate, aggressive, destructive and prohibitive forms of voice (Gorden, 1988; J. Liang et al., 2012; Morrison, 2011; Van Dyne & LePine, 1998).

In recent years, more typologies have been added and, among these, the works of three groups of authors have sparked the most attention. Firstly, Van Dyne et al. (2003) came up with a voice typology that complements the typology of silence, which is defined as a collective phenomenon where employees withhold their opinions and concerns about potential organisational problems (Morrison & Milliken, 2000). Then Liang et al. (2012), applying a greater degree of nuance, differentiated between two types of voice based on the promotive or prohibitive nature of the message conveyed to the recipients of the message. Lastly, Maynes and Podsakoff (2014) constructed a framework of employee voice behaviour along two sets of dimensions: the first set contrasts behaviours that preserve the status quo and behaviours that challenge the status quo, while the second set contrasts promotive voice behaviours and prohibitive voice behaviours.

This section will examine three main streams of research related to various typologies of voice. The works, organised in chronological order and starting with Van Dyne et al. (2003), followed by Liang et al. (2012), and then by Maynes and Podsakoff (2014), will be emphasised. The typology by Maynes and Podsakoff (2014) is selected for this research and will be examined in more detail than others.

Van Dyne et al. (2003, p. 1361) proposed that "purposeful" forms of both silence and voice exist. In their assertion that silence is not the opposite of voice, the authors propose that the main differentiating factor between the two is the "actor's motivation to withhold versus expressing ideas, information, and opinions about work-related improvements".

Three types of silence and three corresponding types of voice are organised within a 2 x 3 framework, as illustrated in Table 2, below:

Behaviour drive (motive)	Behavioural type	Behavioural options			
Feeling	Disengaged	Acquiescent silence	Acquiescent voice		
unable to make a	behaviour	Examples:	Examples:		
difference (Based on		Withholding ideas based on resignation	Expressing supportive ideas based on resignation		
resignation)		Keeping opinions to self due to low self-	Agreeing with the group		
		confidence to make a difference	due to low self-efficacy to make a difference		
Feeling	Self-protective	Defensive silence	Defensive voice		
afraid and	behaviour	Examples:	Examples:		
personally at risk (Based on fear)		Withholding information on problems based on fear	Expressing ideas that shift attention elsewhere based on fear		
		Omitting facts to protect the self	Proposing ideas that focus on others to protect the self		
Feeling	Other-	Pro-social silence	Pro-social voice		
cooperative and altruistic (Based on cooperation)	orientated behaviour	Examples:	Examples:		
		Withholding confidential information based on cooperation	Expressing solutions to problems based on cooperation		
		Protecting proprietary knowledge to benefit the organisation	Suggesting constructive ideas for change to benefit the organisation		

Table 2. Examples of specific types of silence and specific types of voice

Source: Adapted from Van Dyne et al. (2003, p. 1363)

Employee silence and voice are organised in the framework along two dimensions: type of behaviour and type of motivation. Three specific types of silence and voice (acquiescent, defensive and pro-social) are described according to three specific employee motives (disengaged, self-protective and other-orientated).

Contrasted as two important employee behaviours, both silence and voice are divided into three corresponding types: pro-social silence and voice, defensive silence and voice, and acquiescent silence and voice. Discussion of these follows.

- Pro-social voice.

Similar to pro-social silence, pro-social voice is proactive, intentional, requires effort, and is recognised as a form of OCB (Robinson, 1996; Robinson & Morrison, 1995; Van Dyne & LePine, 1998). Pro-social voice is defined as a behaviour of "expressing work-related ideas, information, or opinions based on cooperative motives". Pro-social voice is not intended to focus on self, rather, it is intended to benefit others, such as the organisation (Van Dyne et al., 2003, p. 1371).

- Defensive and acquiescent voice.

Defensive and acquiescent voice is derived from the concept by Morrison and Milliken (2000) that these two types of silence exist: one being silence based on fear (defensive silence) and the other being silence based on inability to make a difference (acquiescent silence), Van Dyne et al. (2003) propose two parallel types of voice, defensive voice and acquiescent voice.

Defensive voice is characterised by "expressing work-related ideas, information or opinions – based on fear – with the goal of protecting self". Acquiescent voice, then, is characterised by disengagement and "expressing work-related ideas, information, or opinions – based on feelings of resignation" (Van Dyne et al., 2003, p. 1372) and stems from feelings of being unable to make a difference.

The authors argue that unlike the unitary concept of voice, this typology of voice is more precise and will allow for a further refining of empirical studies (Van Dyne et al., 2003, p. 1370).

Liang et al. (2012, p. 72), while describing voice as an intentional, "planned behaviour" which is discretionary and largely beneficial for organisational functioning, distinguish between two types of employee voice: promotive and prohibitive.

- Promotive voice, defined earlier as "employees' expression of new ideas or suggestions for improving the overall functioning of their work unit or organization" (2012, p. 74), and
- Prohibitive voice defined as "employees' expressions of concern about work practices, incidents, or employee behaviour that are harmful to their organization" (2012, p. 75).

Liang et al. propose that promotive and prohibitive voice types share some common characteristics, for example, both are considered "extra-role" behaviours, constructive

in nature and motivated by the individual's desire to help. They differ in behavioural content (expressing ideas vs concerns), their function (pointing towards organisational improvements vs pointing out factors that are harmful to the organisation) and implications for others (positive interpretation of suggested improvements vs negative emotions of those responsible invoked by exposing harmful factors). Table 3 provides a comparison between the two types of voice.

Characteristics	Promotive Voice	Prohibitive Voice					
Distinctions	Distinctions						
Behavioral content	 Expresses new ideas or solutions for how to improve the status quo. 	• Expresses concern about existing or impending factors (i.e., incidents, practices, or behaviors) that are harmful to the organization.					
	 Future-oriented; points to possibilities of how to do things better in the future. 	• Past or future-oriented; points out harmful factors that have negatively affected the status quo or could have a harmful effect in the future.					
Function	 Points out ways that the organization can be better. 	 Points out factors that are harmful to the organization. 					
Implications for others	• Suggests improvements that may bring forth changes that inconvenience others in the short run, but the improvements can potentially eventually benefit the entire community.	 Calls attention to harmful factors and consequently implicates the failure of those responsible. 					
	 The good intention behind suggested improvements is easily recognized and interpreted as positive. 	 The good intention behind pointing out harmful factors may not be easily recognized or interpreted as positive because of the 					

Table 3. Distinctions and commonalities between promotive and prohibitive voice types

potential negative emotion and defensiveness invoked in the process.

Commonalities	 Is not specified in formal job descriptions (save for particular jobs such as auditing) and this is "extra- role".
	 Is helpful to the functioning of an employee's work unit or organization and thus is "constructive".
	 Is motivated by a desire to help the work unit or organization and thus reflects the employee's sense of responsibility and constructive attitude toward the organization.

Source: Adapted from Liang et al. (2012, p. 75)

Although Liang et al.'s (2012) typology has gained popularity amongst researchers in recent years (e.g. (Chamberlin, Newton, & LePine, 2017; Jada & Mukhopadhyay, 2018; Wang, Zheng, & Zhu, 2018)), it has also attracted criticism predominantly for viewing prohibitive voice as a constructive behaviour intended to stop or prevent practices perceived as damaging to the organisation (Maynes & Podsakoff, 2014). One of the arguments for such criticism is the fact that employees do not necessarily voice their opinions or suggestions in a constructive manner (Maynes & Podsakoff, 2014). The typology that will be discussed next reconciles this issue and suggests that prohibitive voice behaviour can be either constructively or destructively orientated.

Maynes and Podsakoff (2014, p. 87), in response to the criticism of earlier research on voice behaviour for lack of conceptual clarity on defining voice, poor measurement scales and inconsistent empirical results, introduced a new, "more expansive view" of voice behaviour. There are two distinct outcomes of their work. Firstly, while synthesising the previous research, the authors developed a new voice behaviour framework with four types of voice and provided definitions and characteristics for each of these. Secondly, the authors developed and validated measures for each type of voice behaviour.

Built on earlier research in terms of dimensions between which voice behaviour may vary (Gorden, 1988; Hirschman, 1970; J. Liang et al., 2012; Van Dyne et al., 2003; Van Dyne & LePine, 1998), Maynes and Podsakoff's framework similarly arranged voice behaviours along the two continuums. The opposite dimensions of voice behaviour on the first continuum are behaviours that preserve the status quo and

behaviours that challenge the status quo. The opposite dimensions of voice behaviour on the second continuum are promotive voice behaviours and prohibitive voice behaviours. By organising these four dimensions within a 2 x 2 matrix, Maynes and Podsakoff propose four types of voice behaviour corresponding with four domain quadrants.

Table 4 below, illustrates Maynes and Podsakoff's (2014) voice organising framework, where each type of voice behaviour is defined, characteristics of representative behaviour are described, and related constructs are provided.

Table 4. Organising	framework for	emplovee	voice behaviour
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Supportive Voice
(Preservation + Promotive)

Definition:

Supportive voice is the voluntary expression of support for worthwhile work-related policies, programmes, objectives, procedures, etc., or speaking out in defence of these same things when they are being unfairly criticised.

Representative behaviours:

Expressing support for organisational procedures or objectives

Verbally defending organisational policies that other employees are criticising

Related constructs:

Acquiescent voice (Van Dyne et al, 2003)

Active/constructive voice (Gorden, 1988)

Passive/constructive voice (Gorden, 1988)

Loyalty (Graham, 1991)

Constructive Voice (Challenge + Promotive)

Definition:

Constructive voice is a voluntary expression of ideas, information or opinions focused on affecting organisationally functional change to the work context.

Representative behaviours:

Suggesting improvements to standard operating procedures

Proposing ideas for new or more effective work methods

Related constructs:

OCB voice (Van Dyne and LePine, 1998)

Pro-social voice (Van Dyne et al, 2003)

Promotive voice (Liang et al, 2012)

Prohibitive voice (Liang et al, 2012)

Defensive voice	Destructive voice
(Preservation + Prohibitive)	(Challenge + Prohibitive)
Definition:	Definition:
Defensive voice is a voluntary expression of opposition to changing an organisation's policies, procedures, programmes, practices, etc., even when the proposed changes have merit or making changes is necessary.	Destructive voice is the voluntary expression of hurtful, critical, or debasing opinions regarding work policies, practices, procedures, etc.
Representative behaviours:	Representative behaviours:
Vocally opposing changes to work practice, even though the changes are	Bad-mouthing the organisation's policies or objectives
necessary	Making overly critical comments about
Speaking out against changing work policies, even when the changes have merit	how things are done in the organisation
Related constructs:	Related constructs:
Defensive voice (Van Dyne et al, 2003)	Active/destructive voice (Gorden, 1988)
Resistance to change (Oreg, 2003)	Poor sportsmanship (Organ, 1988)

Source: Adapted from Maynes and Podsakoff (2014, p. 91)

As shown in Table 4, the four distinct types of voice are defined and described in the following ways:

- Supportive voice "is the voluntary expression of support for worthwhile work-related policies, programs, objectives, procedures, etc., or speaking out in defence of these same things when they are being unfairly criticized".
 Supportive voice is closely related to acquiescent voice construct of Van Dyne et al. (2003).
- Constructive voice "is the voluntary expression of ideas, information or opinions focused on effecting organizationally functional change to the work context". Constructive voice is similar to the pro-social voice of Van Dyne et al. (2003), the OCB voice of Van Dyne and LePine (1998) and the promotive and prohibitive voice of Liang et al. (2012).
- Defensive voice "is the voluntary expression of opposition to changing an organization's policies, procedures, programs, practices, etc., even when the proposed changes have merit or making changes is necessary". This type of voice is similar to the defensive type of voice posited by Van Dyne et al. (2003).

 Destructive voice - "is the voluntary expression of hurtful, critical, or debasing opinions regarding work policies, practices, procedures, etc". This type of voice is related to the active/destructive voice of Gorden (1988).

2.1 Discussion

This section discussed three main streams of research related to various typologies of voice. The works of Van Dyne et al. (2003), followed by Liang et al. (2012), and Maynes and Podsakoff (2014) were emphasised. For this research, the comprehensive typology by Maynes and Podsakoff (2014) is selected. Presented along two intersecting dimensions – preservation vs. challenge and promotive vs. prohibitive focus – the authors differentiate between four distinct types of voice: supportive, constructive, defensive and destructive, which are used as a guiding framework for this paper.

3 Measurement of Voice

Since the publication of their seminal work, Van Dyne and LePine's (1998) measuring instrument of voice became the obvious choice in many empirical studies and has remained so, even in recent years (e.g. (Gyensare, Arthur, Twumasi, & Agyapong, 2019; Ng, Feldman, & Butts, 2014; Rees et al., 2013)). Although it demonstrates good psychometric properties (Morrison, 2011), at the time of development its authors already asserted the need for refinement of their measure: "another task for future research is refinement of the ...voice scales" (Van Dyne & LePine, 1998, p. 118).

This chapter will discuss three measurement scales developed in response to Van Dyne and LePine's call for refinement. The instrument by Van Dyne et al. (2003) will be presented, followed by the measurement scale of Liang et al. (2012), and finally, the instrument of Maynes and Podsakoff (2014). In order to enhance understanding of the constructs and their operationalisation and adoption, sample items for each measuring scale presented will be provided.

Van Dyne, Ang and Botero (2003, pp. 1385, 1386) conceptualised silence and voice as multidimensional aggregate constructs (pro-social, acquiescent and defensive), with five sub-dimensions in each. In the recent empirical study by Kok, Sarikaya and Coban (2016, p. 24) the authors reported the reliability level of the 15-item scale for pro-social, acquiescent and defensive voice at a Cronbach's alpha of .733 – a level acceptable to consider the scale as reliable and appropriate for analysis. Similarly,

acceptable reliability coefficients were reported by Li, Huang, Shu and Liu (2018) with a Cronbach's alpha for acquiescent voice .89, defensive voice .91 and pro-social voice .82. The sample items for each of the sub-dimensions (Van Dyne et al., 2003, p. 1386) are presented below:

- Pro-social voice: "This employee expresses solutions to problems with the cooperative motive of benefiting the organisation".
- Acquiescent voice: "This employee passively supports the ideas of others because he/she is disengaged".
- Defensive voice: "This employee does not express much except agreement with the group based on fear".

Interestingly, in their attempt to investigate what type of voice is significantly prevalent in organisations and whether voice behaviour differs in terms of demographical variables (gender, age, marital status, rank, education level, title and department), Kok et al. (2016) found that there is no significant difference between voice and any of demographical attributes. They also came to the conclusion that acquiescent voice (meaning that employees generally conform to other's opinions because of disbelief that their opinions would make any difference) is prevalent in the organisations sampled.

Liang et al. (2012) developed an instrument with two subscales to measure both promotive and prohibitive forms of voice. The authors selected items from a number of previously developed instruments (e.g. by Van Dyne et al. (2003) and Van Dyne and LePine (1998)) and tested them for reliability and validity. Liang et al. (2012) provided supportive evidence of the conceptual distinction between two types of voice and also demonstrated convergent and discriminant validity of promotive and prohibitive voice subscales. The supervisor ratings of employees' promotive and prohibitive voice are assessed on a 5-point Likert scale, where 1 is "Strongly disagree" and 5 is "Strongly agree". Each subscale consists of five items. Liang et al. (2012) report an alpha coefficient value of .87 for promotive voice and .86 for prohibitive voice. Sample items of both subscales are presented below (J. Liang et al., 2012, p. 79):

 Promotive voice: "This employee proactively develops and makes suggestions for issues that may influence the unit". Prohibitive voice: "This employee speaks up honestly with problems that might cause serious loss to the work unit, even when/though dissenting opinions exist".

Tested in recent studies, both subscales show good psychometric properties with a Cronbach's alpha of .75 (Jada & Mukhopadhyay, 2018).

Although Liang et al.'s (2012) instrument is well supported by the research community, the alternative framework for operationalisation of voice by Maynes and Podsakoff (2014) is gaining its popularity for voice constructs due to its being more "crisp and refined" (Chamberlin et al., 2017, p. 42).

Maynes and Podsakoff (2014) developed the organising framework which consists of supportive, constructive, defensive and destructive voice behaviours and validated the measurement scales of each sub-construct. Trimmed from an initial 48 voice scale items, the authors selected a final five items for each sub-construct based on: a) the content validity ratings, b) the ratings on the overall dimensions for voice (e.g. preservation/challenge or prohibitive/promotive), and c) analysis of whether the items reflect the collective domain of the construct (Maynes & Podsakoff, 2014, p. 95).

Four types of voice are measured on a 7-point Likert scale, where 1 is "Strongly disagree" and 7 – "Strongly agree". The authors report the following reliabilities for each measure: a) The Cronbach's alpha for supportive voice is .89; b) The Cronbach's alpha for constructive voice is .95; c) The Cronbach's alpha for defensive voice is .92, and d) The Cronbach's alpha for destructive voice is .93. The sample items for each sub-dimension (Maynes & Podsakoff, 2014, p. 96) are presented below:

- Supportive voice: "This employee defends useful organisational policies when other employees unfairly criticise the policies".
- Constructive voice: "This employee frequently makes suggestions about how to do things in new or more effective ways at work".
- Defensive voice: "This employee vocally argues against changing work practices, even when making the changes is necessary".
- Destructive voice: "This employee frequently makes overly critical comments regarding how things are done in the organisation".

Furthermore, the authors report the number of strengths of their voice measures. Firstly, the items possess adequate discriminant validity. Secondly, the measures exhibit an acceptable level of nomological and criterion-related validity. Lastly, the measures possess a high degree of veridical validity. On balance, the evidence shows that the instrument supports the validity of voice scales (Maynes & Podsakoff, 2014, p. 105).

The question of whether the scales should be self-rated or other-rated sparked numerous debates. By way of example, Maynes and Podsakoff (2014) suggest that voice must be studied from the perspective of observers of voice events, rather than from the perspective of those speaking up. Unlike in the case of self-reports, which may be contaminated with bias (Nederof, 1985), the observers will be able to report on incidences of voice more objectively as they are visible to others. Maynes and Podsakoff's approach is aligned with the significant number of papers studying voice from the perspective of the observer (Burris, Detert, & Chiaburu, 2008; LePine & Van Dyne, 1998; Liang et al., 2012; Van Dyne & LePine, 1998; Venkataramani & Tangirala, 2010).

On that note, in their meta-analysis, Ng and Feldman (2012) report that 71 per cent of selected studies used self-report measures of voice. Across these results, the average reliability was .77. The other 29 per cent of studies used other types of ratings in order to minimise common method bias. These ratings were by supervisors or peers, or were based on counts of suggestions made. Across those studies, the average reliability was .88. Although the number of studies that utilised other-rated questionnaires is smaller, the results demonstrate higher reliability than that achieved in the self-rated measures. This is in line with the recommendation by Van Dyne and LePine (1998) for assessing voice constructs from multiple perspectives, resulting in minimised common source and common method biases.

3.1 Discussion

In this section, various instruments for measuring voice construct were presented. Scholars can consider the merits of each framework and choose one over the other based on their utility and adoption. However, the measuring scale of voice by Maynes and Podsakoff (2014) seems to offer a broader spectrum of dimensions to assess four distinct types of voice – supportive, constructive, defensive and destructive. Based on its high reliability and validity properties, the measure by Maynes and Podsakoff (2014) will be tested in this study.

4 Conclusion

The literature presents a wide range of works on employee voice, which is a significant factor in promoting innovative and novel ideas for organisational improvements (Gorden, 1988; Liang et al., 2012; Morrison, 2011; Van Dyne & LePine, 1998). However, researchers often depict the concept in divergent ways, posing a challenge for scholars and practitioners as no standard definition or measuring instrument is available.

As a result of the analysis of how the voice concept was defined, organised and operationalised over the period of few decades – while also being based on a large spectrum of definitions, categorisations and the assessment of voice offered by a plethora of authors – this paper focused on three researchers per section. The first section presented the most-accepted definitions of voice by Morrison (2011), Liang et al. (2012) and Maynes and Podsakoff (2014). The second section emphasised the works of Van Dyne et al. (2003), followed by Liang et al. (2012), and then by Maynes and Podsakoff (2014). The typologies of the last mentioned were used most often and tested in various conceptual models. Similarly, the final section discussed three instruments for measuring employee voice with relevant sub-scales developed by Van Dyne et al. (2003), Liang et al. (2012), and Maynes and Podsakoff (2014). It is clear that Liang et al. (2012) and Maynes and Podsakoff (2014) are the dominant figures across the three aspects.

Across sections, it appeared that the work of Liang and colleagues (2012) on promotive and prohibitive voice with their related measuring scales is most cited and most widely adopted by researchers after 2012. It also became clear that integrated and expanded work on voice by Maynes and Podsakoff (2014), which seems to drive the conceptualisation and measurement of voice presently, has been gaining support from many researchers and practitioners in recent years. Maynes and Podsakoff's (2014) categorisation of voice as four distinct types, being supportive, constructive, defensive and destructive, is suggested as a guiding framework resolving alternative views of voice and its dimensionality. As regards assessment, the instruments of Maynes and Podsakoff (2014), who developed and validated survey measures for each of four types of voice, demonstrated solid psychometric properties.

To achieve coherence in research, it would be wise to stick to one theory when dealing with all aspects of the research. Within this context, that of Maynes and Podsakoff

(2014) seems to be authoritative on all aspects. This analysis suggests that the definition, the typology and the measurement of voice, as culminating in the work of Maynes and Podsakoff (2014), should be adopted. Following these authors' guidelines, it is suggested that voice should be defined as an "individual's voluntary and open communication directed toward individuals within the organization that is focused on influencing the context of work environment (p. 88), that four types of voice (supportive, constructive, defensive and destructive) are present, and finally, that the assessment instrument of voice developed by Maynes and Podsakoff (2014) is best suited to aligning new research efforts with those of the past.

The current review succeeds in integrating the extant knowledge on the topic and presenting it in an operationalised manner. Academics and practitioners alike are now equipped with most adopted definitions, typologies and measuring instruments related to different types of employee voice behaviour. This will allow them to engage in discussions on the topic with greater confidence, will facilitate research in the future and, importantly, will allow them to align the findings of their research with the existing body of knowledge.

CHAPTER 5: THE EFFECTS OF PSYCHOLOGICAL CONTRACTS, AND THE BREACH THEREOF, ON INNOVATIVE WORK BEHAVIOUR

Presented from the next page is the article with the following reference:

Botha, L., & Steyn, R. (2022). The effects of psychological contracts, and the breach thereof, on innovative work behaviour. *African Journal of Employee Relations,* 45, 1–28. <u>https://doi.org/10.25159/2664-3731/9906</u>

Article 4: The effects of psychological contracts, and the breach thereof, on innovative work behaviour

Abstract

The literature is clear that maintaining psychological contracts between employers and employees is important, and that psychological contract breach often leads to negative outcomes, including the withdrawal of discretionary activities such as innovative work behaviour. Although most literature suggests that a psychological contract breach affects the desired outcomes negatively, the same literature is silent about under which type of psychological contract these outcomes occur. This research aims to empirically determine the way in which psychological contract breach affects the relationship between different psychological contracts (relational and transactional) and innovative work behaviour. A cross-sectional survey design was used, with respondents answering questions on psychological contracts, psychological contract breach and innovative work behaviour. Three results were dominant: Transactional psychological contract did not correlate with innovative work behaviour, whereas relational psychological contract did so in a significant way; psychological contract breach correlated positively and significantly with transactional psychological contract and negatively and significantly with relational psychological contract, but not with innovative work behaviour; and psychological contract breach did not moderate the relationship between relational psychological contract and innovative work behaviour. The psychological contract type (relational psychological contract) therefore has a direct effect on innovative work behaviour, but psychological contract breach did not relate significantly with innovative work behaviour. Managers are alerted to the importance of relational psychological contracts when innovative work behaviour is the desired outcome, given the omnipresent psychological contract breach. Researchers are encouraged to investigate through which mechanisms psychological contract breach influences innovative work behaviour, as this link seems well supported by the literature.

Keywords: psychological contract, psychological contract breach, innovative work behaviour, moderation

INTRODUCTION

Innovative work behaviour (IWB) is defined as "the intentional creation, introduction and application of new ideas within a work role, group or organization, in order to benefit role performance, the group, or the organization" (Janssen, 2000, p. 288). Facilitating IWB is therefore at the top of managerial agendas (Bos-Nehles et al., 2017). This facilitation is important because employee's innovative behaviour is central to organisational success and is also an essential determinant of organisational performance (Noruzy, Dalfard, Azhdari, Nazari-Shirkouhi. & Rezazadeh, 2013; Yen, 2013) and even survival (Agarwal, 2014a; Sanz-Valle & Jiménez-Jiménez, 2018). In pursuit of successful innovative strategies, employees' behaviours must be aligned with strategies fostering innovation (Bos-Nehles et al., 2017). Agarwal (2014b, p. 43) affirms that "one option for organisations to become more innovative is to encourage their employees to be innovative". However, this seems not to happen, as globally only a small number (15%) of employees perceive that their organisations welcome innovation (Mercer, 2018) and that "only half of employees say their company listens to their ideas for improving business outcomes" (Mercer, 2019, p. 32). For organisations to benefit from employees' intentional creative contributions, employees must be willing to engage in IWB (Akhtar et al., 2016; Milliken et al., 2003; Morrison, 2011; Zagenczyk et al., 2015).

As the large part of the desirable innovation resides outside the typical research and development departments, the responsibility for innovation has shifted onto all employees of the organisation (Cohen & Erlich, 2015). The expectation from managers is that employees are able and capable to engage in IWB while delivering on their formal commitments (Miron, Erez, & Naveh, 2004). Such expectations are rooted in IWB being usually conceptualised as employees' discretionary actions that "go beyond the prescribed" and are often not directly or explicitly supported by the formal reward system (Janssen, 2000, p. 288). However, activating and encouraging these discretionary actions form part of recognised management practices (Bos-Nehles et al., 2017; Sanz-Valle & Jiménez-Jiménez, 2018; Veenendaal, 2015).

Discretionary activities or extra-role behaviours such as IWB have been explored broadly with a large number of papers having studied its various antecedents (Srivastava, 2017), including that of psychological contract (PC) (Kasekende, 2017),

PC fulfilment (Ahmad & Zafar, 2018; Kiazad, Kraimer, & Seibert, 2019) and PC breach (Akinwale, Shadare, & Aliyu, 2021). This therefore implies the relevancy of the PC concept to this research. The relationship between the employer and its agents and employees is determined by the nature of the PC between the parties (Rousseau, 2004, 2011; Rousseau & McLean Parks, 1993). The PC is defined as "individual beliefs, shaped by the organization, regarding terms of an exchange agreement between individuals and their organization" (Rousseau, 1995, p. 9). It assumes that employees expect their employer to meet a large number of obligations as part of the explicit and implicit conditions in the employer-employee relationship (Deery et al., 2006; Morrison & Robinson, 1997; Rousseau, 1989). At the inception of the relationship, both the employer and the employee make a number of mutual promises, explicit and implicit, which form the core of the PC. When employees perceive that the organisation or its agent has broken their promises, psychological contract breach (PCB) occurs (Morrison & Robinson, 1997). These breaches are common in the workplace and became a norm, rather than exceptions (Robinson & Rousseau, 1994).

Despite the growing interest in studying various antecedents of IWB, the possibility that different types of PC (and breaches thereof) may serve as predictors of IWB, has been generally under-researched. Although the links between PCs and IWB (Aggarwal & Bhargava, 2010; Ramamoorthy et al., 2005) and between PCB and IWB (Kim et al., 2017; Newton et al., 2011) have previously been investigated independently, there is little evidence of all three variables having been studied within one theoretical model.

The research aims to address this paucity through achieving three goals, namely, testing the link between two types of PC and IWB, ascertaining the way in which PCB affects IWB, and determining the way in which PCB affects the relationship between PCs and IWB. The overarching research question can therefore be stated as follows: What type of PC, transactional or relational, will likely affect IWB, under conditions of PCB?

This article makes contributions on three levels. From a conceptual perspective, three variables, namely PC types, PCB and IWB, are studied together within a single model, an approach that has not been taken previously. Such a conceptualisation is more complex than previous attempts to understand this relationship. As the results will indicate, the relationship between the variables is counter-intuitive, which is a valuable

empirical contribution. From a practical perspective, this study sheds light on the way in which managers should approach their exchange relationships when IWB is the goal. Finally, from the design methodology perspective, this study offers simplicity in design and can thus be easily interpreted and replicated.

PC, PCB AND IWB, AND THE LINKS BETWEEN VARIABLES

Interest in the PC concept on the part of academics and practitioners is significant and continues to rise due to increasing pressure on organisations to sustain employees' motivation and commitment (Cullinane & Dundon, 2006). Effective PCs are linked to positive employee behaviours and employment relations, and engaged and committed workers (Kutaula et al., 2020; Schalk & De Ruiter, 2019; Soares & Mosquera, 2019; Tekleab et al., 2020). These highly desirable work outcomes are considered the foremost organisational resources critical to firms' survival and success (Agarwal & Bhargava, 2013). Despite the advances in PC concept development in recent years, describing the PC seems not to have evolved much beyond the seminal work of Rousseau (1989, 1990, 2001, 2004, 2011). Two major types of PC, namely, transactional PC (TPC) and relational PC (RPC), have become a means of defining the way in which employment relationships are organised in a workplace (Rousseau & McLean Parks, 1993; Rousseau & Wade-Benzoni, 1994). Robinson and Rousseau (1994) suggest that when employees perceive value in rewards that accrue over the short term – such as pay, training, and credentials that will help them to obtain better future employment – they are operating under the TPC. In contrast, employees who believe in the long-term relationship with their employer and value the relationship itself beyond any short-term gains from their employment, they are party to the RPC (Robinson & Rousseau, 1994).

This brings the dependent variable in this study, namely IWB, into play. According to the literature, there seems to be consensus that innovation constitutes a key source of competitiveness and that it forms an essential element of organisational success (Bos-Nehles et al., 2017; Sanz-Valle & Jiménez-Jiménez, 2018; Veenendaal, 2015). The task of effecting innovation is often left in the hands of research and development departments (Scott & Bruce, 1994), but with IWB the situation is somewhat different. The willingness of employees to participate in extra-role activities, such as IWB, is dependent on several contingent factors in the organisation. The first of these could

be PCs in general, as these largely determine the organisational climate (Kasekende, Munene, Ntayi, & Ahiauzu, 2015). The second could be the type of PC, as its specific nature could explain the employee's perception of the relationship with the organisation or its agents, in turn eliciting particular responses from the employee, including extra-role behaviours (Hui et al., 2004). Furthermore, engaging in discretionary actions may be dependent on the extent of PC breaches, which may cause employees "to reassess their basic commitment to the organisation" (Lee & Mitchell, 1994, p. 61) and to adjust levels of their extra-role engagements.

Previous research on the link between PCs and IWB demonstrated strong evidence that these links are positive for relational contracts (Chang, Hsu, Liou, & Tsai, 2013; Thompson & Heron, 2006) and negative for transactional contracts (Suh, 2002; M. Thompson & Heron, 2006). In their empirical study, Chang, Hsu, Liou and Tsai (2013) tested the link between TPCs, RPCs and individual innovation. Their findings suggest that different types of PC send different and dissimilar messages that trigger IWB. That is, relational contracts lead to individual innovation and transactional contracts hamper the willingness of employees to participate in innovative behaviours. This can be explained by the nature of the relational contracts where employees consider innovation as a long-term process (Meng & Roberts, 1996) and tend to invest their efforts over longer periods.

Complementary to this, Thompson and Heron (2006) explore the relationship between PC and innovative performance by utilising multiple facets of PC (such as performance pay, job design, career, and work-life balance), which comprise both transactional (monetary) and relational (non-monetary) dimensions. These authors found that fulfilment of certain aspects of the PC had a higher correlation with innovative performance than others. By way of example, perceived fulfilment of job design dimension (non-monetary) had a direct positive relationship with innovative performance, whereas performance pay dimension (monetary), when fulfilled, had a direct negative relationship. The latter findings could be explained in that employees who perceive their voluntary innovative outputs as being rewarded extrinsically (pay), rather than intrinsically, may reduce such activity (Deci & Ryan, 1985). It could therefore be argued that what employees offer in a relational manner also begs a response in a relational manner (rather than in a transactional way).

A further empirical study by Aggarwal and Bhargava (2010) reported that TPC significantly and negatively relates to innovative behaviour, suggesting that employees who perceive their employment relationship as being of a short-term and calculative nature will be unlikely to engage in extra-role activities and to innovate. However, contrary to their expectations, these authors found that RPC did not correlate with IWB. This seems to suggest that when innovation is perceived as a change-orientated activity (Spreitzer, 1995), some workers may want to prevent change. It could therefore be argued that in order to preserve the status quo in their proximal exchanges (for example, with co-workers), innovative employees may choose to refrain from offering innovative ideas.

The empirical link between PCB and IWB has resulted in some counter-intuitive findings. A large number of empirical studies have provided overwhelming evidence that PCB negatively correlates with employees' in-role performance (Hartmann & Rutherford, 2015), work engagement (Agarwal, 2014b), affective commitment (Rigotti, 2009), and organisational citizenship behaviour (Lu et al., 2015). Specific to this study, a number of researchers report that PCB negatively affects IWB (Li et al., 2014; Ng et al., 2010; Vander Elst et al., 2016). Some investigations, however, report that negative occurrences (such as PCB) may lead to innovation and to promoting employees' innovative behaviours. By way of example, negative emotions, such as anger and hostility, can foster IWB, specifically in its idea-generation stage (Yang & Hung, 2015). Innovation can also be sparked when personal confrontations take place between employees and managers during times of organisational uncertainty (Van de Ven, 1986). Linked to the aforementioned, PCB may lead to innovation among dissatisfied employees searching for organisational improvements (Zhou & George, 2001).

Although many empirical investigations have focused on the direct link between PCB and IWB, only a few studies modelled the effects of the PCB as moderator or mediator and the results of these are non-conclusive. For example, Janssen (2000) provided evidence of high job demands being positively related to IWB under conditions of psychological contract fulfilment (PCF). PCF and PCB can be used as end points of the same scale (Zhao et al., 2007), with the naming convention dependent on the hypothesis being tested. That is, employees became engaged in higher levels of IWB in response to higher job demands only when they perceived that they were being fairly rewarded for their efforts; a proxy for PCF. A study by Niesen, Van Hootegem,

Vander Elst, Battistelli and De Witte (2018) reported contradictory results, where job insecurity was positively and significantly related to both idea generation and idea implementation (elements of IWB), when mediated by PCB. The authors explain these results by stating that employees attempt to restore balance in their employment relations by putting forward discretionary efforts and behaving more innovatively and that, in return, they expect of their organisations to reciprocate with higher levels of job security.

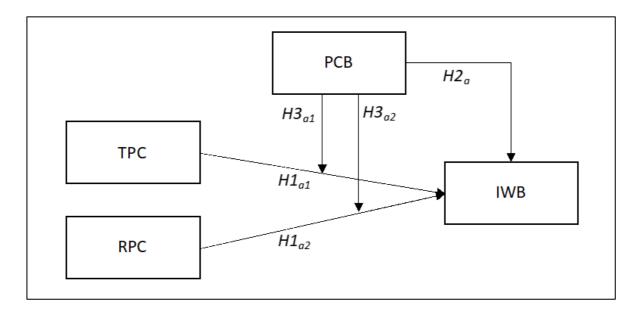
From the aforementioned, it is evident that no consensus exists on the link between PC, PCB and IWB, and even that some results are contradictory. It is, however, clear that the outcomes of PCB can be contingent on certain organisational contexts, specifically, the perceived nature of social exchanges, as it materialises in the PC types between the employer and the employee, which may promote or hamper IWB.

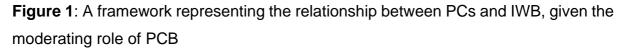
RESEARCH FRAMEWORK AND HYPOTHESES

The research framework appears in Figure 1. It suggests a relationship between TPC and/or RPC and IWB, with PCB as a possible moderator.

Two theories informed this framework and the empirical investigation. The first theory is the psychological contract theory (Robinson & Rousseau, 1994; Rousseau, 1995, 2011; Rousseau & McLean Parks, 1993), which suggests that effective PC, be it TPC or RPC, is linked to positive work outcomes and committed employment relations. For employees to engage in extra-role behaviours such as IWB, a sense of beneficial long-term investment (RPC) is important, which is unlikely to be present in employees who value the monetary and short-term benefits (TPC) as the basis of their employment relationship. It is intuitively logical to assume that RPC may impact on IWB more than TPC. This suggests the following hypothesis:

 H1₀: PCs do not have a direct impact on IWB (H1_{a1}: TPC has a direct impact on IWB; H1_{a2}: RPC has a direct impact on IWB)





Another central assumption of the PC theory is that employees expect their organisations to meet a large number of obligations as part of both the explicit and implicit employment conditions (Deery et al., 2006; Morrison & Robinson, 1997; Rousseau, 1989). However, when employers fail to fulfil those obligations, PCB occurs and an imbalance in the relationship sets in. The employees' responses to PCB include decreased in-role performance (Hartmann & Rutherford, 2015), lower levels of work engagement (Agarwal, 2014b), decreased affective commitment (Rigotti, 2009) and lower levels of organisational citizenship behaviour (Lu et al., 2015). It can therefore be hypothesised that PCB will have a direct effect on IWB:

 H2₀: PCB does not have a direct impact on IWB (H2_a: PCB has a direct impact on IWB)

The second theory – social exchange theory (Blau, 1964) – is valuable in explaining employees' reactions to PCB. This theory claims that participants in a relationship strive to attain reciprocity, by which one party is morally obligated to give something in return for something received (Cropanzano & Mitchell, 2005). Cropanzano and Mitchell (2005) argue, for example, that when employees receive economic and socio-emotional resources from their employer, they feel obligated to respond in kind. Such exchanges typically include the mutual understanding that the employer will provide safe working conditions, fair opportunities for promotion, training and development prospects in return for employee commitment, loyalty and good work performance

(Conway & Briner, 2005; Dabos & Rousseau, 2004). When employees feel that their contributions in the exchange relationship are fairly rewarded, they are keen to reciprocate by activities that go beyond the contractual (Organ, 1990), such as innovating.

Similarly, when employees perceive that their efforts are under-rewarded by the employer, they may hold back their in-role performance, organisational commitment and extra-role behaviours (Hartmann & Rutherford, 2015; Paillé et al., 2016; Raja et al., 2004; Rigotti, 2009; Suazo, 2009; Vander Elst et al., 2016). Given the aforementioned, the social exchange theory provides a solid theoretical foundation to predict that these imbalances, explained as PCBs (Morrison & Robinson, 1997), may lead to employees responding negatively to their PCs while, at the same time, withholding their IWB. The following is therefore hypothesised:

H3_{0a}: PCB does not affect the relationship between PCs and IWB (H3_{a1}: PCB moderates the relationship between TPC and IWB; H3_{a2}: PCB moderates the relationship between RPC and IWB).

METHOD

A cross-sectional survey design was used to collect data and to test the hypotheses.

Population and sampling

The target population consisted of employees at different levels of responsibility and exposed to organisational dynamics. Organisations with more than 60 employees were targeted, as it was presumed that the employment relationships (PCs) would be formalised in these organisations and that a broad range of contracts would be in place. For assistance with data collection and to gain access to various organisations, the researchers hired a group of 11 students enrolled in the Master of Business Leadership programme at a major South African business leadership school. Once these students had been granted access by the authorities at the 11 organisations concerned, they were assisted by these organisations' respective human resources departments with the drawing of a random selection of employees for participation in the study. This resulted in each student obtaining an average of 60 completed questionnaires from the related organisation.

Measures

Three instruments were administered, namely the psychological contract scale (PCS) (Millward & Hopkins, 1998), the measuring scale for PCB (Robinson & Morrison, 2000), and the IWB scale (Kleysen & Street, 2001). A short description of each instrument is presented below.

Millward and Hopkins' PCS (1998) is recommended by Freese and Schalk (2008) for measuring specific contract orientations, relational and transactional. The original 33item instrument (20-item for transactional contract and 13-item for relational contract scales) was shortened, with five items retained for measuring transactional contracts and five items for measuring relational contracts. The shortened versions of scales are based on the highest average factor loadings of each item¹ and followed examples of Bateman and Crant (1993) and Strydom (2013). Each PC type was measured on a seven-point Likert scale ranging from 1 – "Strongly disagree" to 7 – "Strongly agree". Sample items: "I only carry out what is necessary to get the job done" for transactional contract and "To me, working for this organization is like being a member of a family" for relational contract. When using the full scale, Millward and Hopkins (1998) reported a Cronbach's alpha of .86 for all relational items and .88 for all transactional items.

PCB was measured with Robinson and Morrison's (2000) nine-item scale, of which four items measure violation and five items breach. Reporting of breach is done by the reverse scoring of a fulfilment measure on a Likert scale from 1 to 5 (disagree–agree). The sample item – "Almost all the promises made by my employer during recruitment have been kept so far" (reversed). Although Robinson and Morrison (2000) report a significant correlation between perceived violation and perceived contract breach (r =.68 and p < .01), this study reports a total, global score², for both sub-constructs. The decision was made to report a total score for PCB because, theoretically, perceptions of employees of either violation or breach or both, result in the (negative) work outcomes (Bal, De Lange, Jansen, & Van Der Velde, 2008; Raja et al., 2004; Tekleab

¹ Seibert et al. (2001) reported evidence for the validity and reliability of the shortened scales. In their study, the 10 items for proactive behaviours were averaged to form a single-scale score, with a Cronbach's alpha of .85, which is acceptable.

 $^{^2}$ According to Zhao et al. (2007), a composite measure refers to various content items of the psychological contract, for example, training, job security and pay. The researcher will typically ask respondents to what extent the organisation has fulfilled its obligation on each item. Unlike in the composite measure, where each content item is considered individually, the global measure evaluates the respondent's overall perception of how much the organisation has fulfilled or failed to fulfil its promises (Zhao et al., 2007).

& Taylor, 2003) and both would affect IWB in the same direction. Kim, Karatepe and Lee (2017) reported a total Cronbach's alpha for PCB of .88.

IWB was measured with Kleysen and Street's (2001) 14-item IWB scale. Fourteen items present elements descriptive of individual innovation, namely opportunity exploration (items 1 to 3), generativity (items 4 and 5), information investigation (items 6 to 8), championing (items 9 to 11), and application (items 12 to 14). Each item was measured on a six-point Likert scale varying from 1 – "Never" to 6 – "Always". All the questions start with the same prefix, namely "In your current job, how often do you...". Sample item: "...look for opportunities to improve existing process, technology, product, service or work relationship?". Kleysen and Street (2001) report Cronbach's alpha coefficients higher than .70 for all sub-scales, which is acceptable (Hair, Black, Babin, & Anderson, 2010). Scott and Bruce (1994) argue that innovation comprises discontinued activities often performed by employees simultaneously, suggesting that IWB should be measured as a single construct as a standard (also, in Janssen, 2000). Furthermore, IWB does not seem to empirically consist of discreet stages (Steyn & de Bruin, 2019), therefore a total score and not stage scores was used to measure IWB. Hebenstreit (2003) reported on the single score with an alpha of .95.

Statistical analyses

Firstly, descriptive statistics of the respondents were calculated and subjectively interpreted to come to some conclusion on how well these statistics mirror the populations they are supposed to represent. Information from Statistics South Africa (2020) was used in this analysis.

The test for normality of the collected data was analysed with regard to skewness and kurtosis. The skewness and kurtosis scores were interpreted following the guidelines of Field (2009). If the observed SPSS value divided by the standard error of that value is larger than 1.96, or smaller than -1.96, the data are interpreted as showing a serious deviation from normality.

The reliability was calculated using the Cronbach's alpha coefficient. In line with the recommendations of Tavakol and Dennick (2011) regarding Cronbach's alpha (> .90 (excellent), .89 - .80 (good), .79 - .70 (acceptable), .69 - .60 (questionable), .59 - .50 (poor), and < .50 (unacceptable)), all instruments were assessed for internal consistency level. In this study, and aligned with Pallant (2013), alpha coefficients

were accepted as being satisfactory where the alpha scores exceeded .70, with scores above .80 being accepted as desirable.

For factorial validity, the data were first analysed for adequacy. Kaiser-Meyer-Olkin's (KMO) measure of sampling adequacy and Bartlett's test of sphericity were performed, and the results were considered acceptable when the KMO were excellent (> .90) (Field, 2009) and the Bartlett's test value was significant (p < .001) (Pallant, 2013). When analysing factor loadings, the absence of significant cross-loadings was interpreted as indicative of factorial validity.

Pearson product-moment correlations (r) were calculated. Correlations with a significance value less than .01 were regarded as significant (given the relatively large sample), with r < .10 (or < -.10) deemed as insignificantly small, .10 to .29 (or -.10 to -.29) as small, .30 to .49 (or -.30 to -.49) as medium, and .50 to 1.0 (or -.50 to -1.0) as large (Cohen, 1988).

Regression analyses were also performed. In this study, the total size of the regression coefficient was of less concern, with the focus primarily on the significance of the beta values of the different predictors. Significant predictors (p < .01) were deemed as unique and substantial contributors to the variance in the dependent variable.

Moderation was tested based on the procedures suggested by Fairchild and MacKinnon (2009). This method involves doing a regression without including the moderator as a variable in that regression (Model 1), then adding the moderator (PCB; Model 2) and, finally, adding the moderator and the interaction effect (predictor variable × moderator; Model 3). In general, the interest is in ΔR^2 , using Model 1 as a baseline model. If ΔR^2 is positive and significant across models, this suggests improved models and the specific importance of adding the additional variable. Should PCB directly predict IWB (Model 2, with a PCB having a significant beta value), it is representative of a direct effect, making it an antecedent to IWB. Should the interaction between PCB and any subcomponent be significant (Model 3, with a TPC × PCB or RPC × PCB having a significant beta value), this is representative of PCB moderating the relationship between that PC type and IWB.

RESULTS

Demographics

Of 620 respondents, 313 were men (50.5%) and 301 were women (48.5%). The gender data from seven respondents were missing. Compared with the data from the report of Statistics South Africa (2020), which indicates that 51.1 per cent of the South African population are women, the prevalence of men in this study is clear. However, as women are typically tasked with domestic errands (Cascio, 2010) and family matters (Robbins & Judge, 2011), this discrepancy was deemed insignificant.

Of this sample, most respondents, 440, were black (71%), followed by 103 white respondents (16.6%), 42 coloured (6.8%) and, finally, 28 Asian respondents (4.5%). These data are representative and are consistent with those provided by Statistics South Africa (2020), bar the difference in white people consisting of 7.8 per cent of the population. This seeming over-representation of white people in the workforce could well be a part of the legacy of apartheid, where certain jobs were reserved for white people (Das-Munshi et al., 2016).

With regard to schooling, the majority in the sample, 254 respondents (41%), had a higher degree or diploma, 203 respondents (32.7%) had obtained their 1st degree or diploma, 138 respondents (22.3%) had matric (senior certificate), and 19 participants (3.1%) had less than 12 years of education. It could therefore be reasonably expected that most of the respondents would be able to adequately comprehend and answer the questionnaires.

The sample was also well represented with regard to age. The youngest respondent was of 21 years of age and the oldest 64, providing a sample mean of 37.8 years old, and a standard deviation of 8.8. The respondents' tenure in their organisations ranged between 1 and 42 years, with a mean of 6.6 years of service (standard deviation of 5.9). This implies that most respondents were well capable of reporting on organisational practices.

Descriptive statistics for variables

The descriptive statistics for all measures and variables used in this study will be presented and discussed (Table 1).

	Min	Max	Mean	Std. Dev.	Skewness* Value	Z	Kurtosis [#] Value	Z
TPC	1	7	4.406	1.628	-0.145	-1.481	-1.005	-5.131
RPC	1	7	2.994	1.495	0.817	8.326	0.026	0.135
РСВ	1	5	3.938	0.931	-0.854	-8.708	0.249	1.275
IWB: OE	1	6	2.416	0.958	0.402	4.106	-0.251	-1.283
IWB: G	1	6	2.354	1.065	0.610	6.224	-0.166	-0.852
IWB: II	1	6	2.725	1.126	0.257	2.623	-0.556	-2.840
IWB: C	1	6	2.702	1.161	0.421	4.294	-0.412	-2.105
IWB: A	1	6	2.757	1.170	0.420	4.281	-0.419	-2.138
IWB	1	6	2.608	0.942	0.288	2.943	-0.405	-2.071

 Table 1: Descriptive statistics for TPC, RPC, PCB and IWB (N = 620)
 Image: PCB and PCB a

IWB: OE = opportunity exploration; IWB: G = generativity; IWB: II = information investigation; IWB: C = championing; IWB: A = application.

*Standard Error for skewness = 0.098.

*Standard Error for kurtosis = 0.196.

Aligned with Field's (2009) description of normality range (both scores being smaller than 1.96 irrespective of the sign), skewness and kurtosis of subscales met the normality requirement. The skewness scores were, in general, beyond the normality range, with serious deviation at RPC (where most respondents opted for the bottom of the scale) and PCB (where most respondents opted for the top of the scale). Opting for the top of the scale also occurred for all elements of the IWB and the total score on IWB. With kurtosis, the statistics reflect that there was a provision for outliers as far as TPC was concerned, as well as with IWB: II, IWB: C, and IWB: A. For the rest of the scales, the kurtoses were within a normal range.

Reliability and validity

Reliability was determined through the calculation of Cronbach's alpha coefficients (Table 2). Validity was determined through the factor analysis.

Given the guidelines of Pallant (2013), suggesting that the reliability score is reported as satisfactory when the alpha exceeds .70 and desirable when the alpha is above .80, the reliability ranged from satisfactory to desirable.

Instrument	Number of items	Cronbach's alpha coefficient
TPC	5	.764
RPC	5	.794
РСВ	9	.945
IWB	14	.940

Table 2: Reliability of measures for TPC, RPC, PCB and IWB (N = 620)

Before engaging in the analyses, the factorial validity of the data was tested. This was satisfactory when the TPC and RPC items were entered into the same model, with KMO's measure of sampling adequacy of .774 and Bartlett's test of sphericity providing satisfactory results (chi-square value of 1885.94; df = 45, p < .001), as a guideline for acceptability. The theorised two factors declared 54.7 per cent of the variance in the data. When a varimax rotation with Kaiser normalisation was performed on the principal component analysis (refer to Table 3), it revealed two clear factors, with all the TPC items (without any cross-loadings) loaded on the first factor, while the same occurred with regard to all the items of RPC.

Item Name	Component		
	1	2	
TPC item 1	0.077	<u>0.724</u>	
TPC item 2	-0.211	<u>0.517</u>	
TPC item 3	0.097	<u>0.816</u>	
TPC item 4	-0.011	0.763	
TPC item 5	0.048	<u>0.753</u>	
RPC item 1	0.667	0.191	
RPC item 2	0.769	-0.020	
RPC item 3	0.765	-0.036	
RPC item 4	0.712	-0.158	
RPC item 5	0.784	0.044	

Note: All values higher than 0.5 are underlined in the table to facilitate easier interpretation.

In the data analysis for PCB, two possible avenues to factorial validity were followed, focussing on PCB as a single construct and as a two-dimensional construct defined as violation (PCV) and breach (PCB). When entering all nine items into the same model, KMO's measure of sampling adequacy of .932 and Bartlett's test of sphericity provided satisfactory results (chi-square value of 4924.404; df = 36, p < .001), as a guideline for acceptability. With the tested one-factor solution, 69.7 per cent of the variance in the data was declared, with all nine items having loadings higher than 0.754. When testing for a two-factor solution, 79.9 per cent of the variance in the data was declared to analyses are presented in Table 4.

It is interesting to note that in the two-factor solution, no significant cross-loadings occurred. The results in Table 4 reveal that PCV and PCB could be theorised as distinct concepts, aligned with Robinson and Morrison (2000). However, these could also be conceptualised as a single construct and will be used accordingly in this article.

Item Name	One-factor theorisation	Two-factor theorisation	
	Component 1	Component 1	Component 2
PCV item 1	<u>0.754</u>	0.270	<u>0.839</u>
PCV item 2	<u>0.821</u>	0.335	<u>0.866</u>
PCV item 3	<u>0.809</u>	0.415	<u>0.756</u>
PCV item 4	0.847	0.474	<u>0.747</u>
PCB item 1	<u>0.849</u>	<u>0.779</u>	0.398
PCB item 2	<u>0.857</u>	<u>0.838</u>	0.342
PCB item 3	<u>0.850</u>	0.826	0.345
PCB item 4	<u>0.856</u>	0.824	0.356
PCB item 5	<u>0.865</u>	<u>0.851</u>	0.339

Table 4: Rotated component matrix for PCB, given Varimax rotation

Determining the factorial validity for IWB was done in two phases, focusing first on IWB as a single construct and then as a multi-dimensional construct. When entering all 14 items into the same model, KMO's measure of sampling Adequacy of .937 and Bartlett's test of sphericity provided satisfactory results (chi-square value of 5611.343; df = 91, p < .001), as a guideline for acceptability. With the tested one-factor solution, 56.30 per cent of the variance in the data was declared, with all 14 items having

loadings higher than 0.566. The best alternative (multi-dimensional fit) included two factors and declared 64.44 per cent of the variance in the data, where the varimax rotation with Kaiser normalisation was performed on the principal component analysis.

In the two-factor solution, the three items of IWB opportunity exploration loaded on the second factor (with no significant cross-loadings); the items of IWB generativity and IWB information investigation loaded on factor one and two in a non-predictable manner, while the items from IWB championing and IWB application loaded (with no significant cross-loadings) on the first factor. Given the disparate results following from the two-factor solution, IWB was rather conceptualised as a single construct, in line with the observations of Scott and Bruce (1994), while cognisant of the fact that many others (De Jong & Den Hartog, 2010; Janssen, 2000) recommended that it be conceptualised as discrete and discontinued activities.

Relationships between the variables

In this section, the relationships between all the variables (TCP, RCP, PCB and IWB) are presented through the correlation coefficient and hierarchical linear regression analyses. These results will assess the plausibility of all the set hypotheses.

Correlation analyses

The Pearson correlation coefficient was used to measure the relationship between three variables. Table 5 presents the coefficients and the significance levels to determine relationships between the variables.

	TPC	RPC	PCB	IWB
TPC	1	.016	.246 (< .001)	064 (.111)
RPC	.016 (.687)	1	398 (<.001)	.198 (< .001)
РСВ	.246 (<.001)	398 (< .001)	1	032 (.421)
IWB	064 (.111)	.198 (< .001)	032 (.421)	1

Table 5: Correlation between constructs (N=620)

From Table 5, it is evident that only RPC (to the exclusion of TPC) statistically and significantly relates to IWB. The practical significance of this correlation was small. This addresses Hypothesis 1, rejecting the H1₀ hypothesis and granting a conclusion that RPC relates to IWB.

It is also clear from Table 5 that PCB is not a direct predictor of IWB. This addresses Hypothesis 2 and does not allow us to reject H2₀, thus implying that PCB does not affect IWB.

Beyond the scope of the hypotheses, it is also visible from Table 5 that TPC correlates positively with PCB, whereas RPC correlates negatively with PCB – in both cases, significantly. This suggests that under conditions of TPC, PCB is experienced more often. The relationship between RPC and PCB is the opposite, which may suggest that in situations where RPCs are observed, PCBs are experienced less often.

Given that RPC relates to IWB and given that PCB is not a direct predictor of IWB, we proceeded to test a more complex model, where the hypothesis of PCB moderating the relationship between RPC and IWB is tested ($H3_{a2}$). The alternative hypothesis involving TPC ($H3_{a1}$) is not tested, as no relationship was found between TPC and IWB.

Regression Analyses: The Moderation Effect of PCB on the Relationship between RPC and IWB

To test for moderation effects, recommendations for using regression analyses were considered (Fairchild & MacKinnon, 2009). Three models were tested: Model 1: RPC predicts IWB; Model 2: RPC and PCB predict IWB; Model 3: RPC, PCB, and the interaction between RPC and PCB predict IWB.

From Table 6, it can be observed that RPC predicts 3.8 per cent of the variance in IWB and that the addition of the PCB changes the variance in IWB to 3.9 per cent, whereas the addition of an interaction term (RPC \times PCB) reduces the variance declared (3.7% explained). The "improvements" in the models are visible in Δ R square values, which are not significant.

Model	R	R square	Adjusted R square	∆R square	Std. error of the estimate
1	.198	.039	.038	-	.924
2	.204	.042	.039	.001	.923
3	.204	.042	.037	002	.924

 Table 6: Summary of models

The test for the analysis of variance (ANOVA) on the model fit is presented in Table 7. From the values in the last column in Table 7, it can be concluded that there is a good fit of the models, with all p-values falling below .05. The regression coefficients for the three models are presented next, and the significance of the interaction term in Model 3 would be indicative of moderation.

Model		Sum of squares	df	Mean square	F	Sig.
1	Regression	21.519	1	21.519	25.196	< .001
	Residual	527.802	618	0.854		
	Total	549.321	619			
2	Regression	22.921	2	11.461	13.433	< .001
	Residual	526.400	617	0.853		
	Total	549.321	619			
3	Regression	22.950	3	7.650	8.953	< .001
	Residual	526.370	616	0.854		
	Total	549.321	619			

Table 7: The ANOVA test for RPC, PCB and IWB

Should the beta-value of RPC be significant, it would suggest that it is a direct predictor of IWB (Model 1). Should the beta value of PCB be significant, it would indicate that it is a further direct predictor of IWB (irrespective of whether the value of RPC is significant) (Model 2). When considering Model 3, a significant beta value of the interaction RPC \times PCB would indicate moderation, which is full, if the significance of PCB disappears in this model, and is partial, if both PCB and RPC \times PCB are significant.

The results in Table 8 indicate that in Model 1 the correlation between RPC and IWB is positive and statistically significant, with the higher levels of RPC leading to the higher levels of innovative behaviour. In Model 2, however, it is observed that the beta value of PCB is statistically non-significant, indicating that PCB is not a predictor of IWB. Lastly, when analysing the results for Model 3, it can be concluded that PCB does not moderate the relationship between RPC and IWB as the beta value for the interaction between RPC and PCB is found to be statistically non-significant.

Model	Predictor	Beta	Std. error	Std. beta	t	Sig.
1	Constant	2.235	0.083	_	26.891	< .001
	RPC	0.125	0.025	0.198	5.020	< .001
2	Constant	1.974	0.220	-	8.991	< .001
	RPC	0.138	0.027	0.220	5.118	< .001
	PCB	0.056	0.043	0.055	1.282	.200
3	Constant	2.030	0.370	_	5.478	< .001
	RPC	0.122	0.091	0.194	1.343	.180
	PCB	0.041	0.090	0.041	0.459	.646
	$RPC \times PCB$	0.004	0.024	0.025	0.185	.853

 Table 8: Regression coefficients across the three models

Outcomes of the Hypotheses

- H1₀: Psychological contracts do not have a direct impact on IWB. This hypothesis could not be rejected for TPC, where the correlation between TPC and IWB was .064 (p = .111) (see Table 5). For RPC the statistics was as follows: r = .198, with p < .001 (see Table 5). It was also determined that RPC predicts 3.7 per cent of the variance in IWB.
- H2₀: Psychological contract breach does not have a direct impact on IWB. This hypothesis could not be rejected, as the correlation between PCB and IWB was
 .032 (p = .421) (see Table 5).
- H3₀: Psychological contract breach does not affect the relationship between psychological contracts and IWB. As TPC did not correlate with IWB, the test for moderation was obsolete (see Table 5). The hypothesis that PCB moderates the relationship between TPC and IWB is therefore nonsensical. With regard to RPC, a small positive-but-significant relationship with IWB was found. From Table 8, it can be observed that PCB does not moderate the relationship between RPC and IWB.

Figure 2 summarises the results graphically.

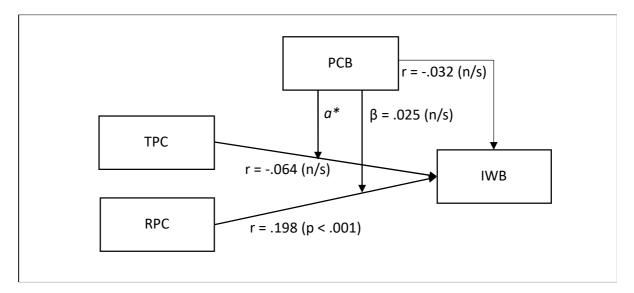


Figure 2: The results of the interplay between TPC and RPC and the moderating role of the PCB in promoting IWB

a^{*} The moderating effect of PCB on the TPC-IWB relationship was not calculated, as this relationship was not significant.

DISCUSSION

This study integrated the literature on the effects of PCs and PCB on IWB. From the literature review, and particularly previous empirical research on these relationships, it was concluded that the link between the PC and IWB is negative for TPC (Aggarwal & Bhargava, 2010; Suh, 2002; M. Thompson & Heron, 2006) and positive for RPC (Chang et al., 2013; M. Thompson & Heron, 2006). Although results in most studies support a positive RPC–IWB link, in some cases there is also evidence that TPC has no effect on IWB (Aggarwal & Bhargava, 2010). Furthermore, it was also found that monetary rewards (typically embedded in TPC) for IWB reduced the voluntary innovative activity of employees (Deci & Ryan, 1985; M. Thompson & Heron, 2006). These apparent contradictions in previous research on PCs and IWB necessitated this study.

With regard to the PCB–IWB link, the research findings consulted and reported on in the literature review, indicate strong evidence of the negative effects of PCB on IWB (Li et al., 2014; Ng et al., 2010; Vander Elst et al., 2016). However, some investigations reported that perceptions of breach may promote IWB (Van de Ven, 1986; Yang & Hung, 2015; Zhou & George, 2001). These paradoxical findings on the effects of PCB further made this research necessary.

The present study followed a cross-sectional design, which suited the objectives of the research well. Despite some problems with normality, a simple and straightforward method was selected and applied to this research and it yielded reliable and impartial results. The simplicity of the design allows academics and practitioners easy access to the material.

The respondents who participated represented the sample population adequately with regard to their gender and race, resembling the numbers reported by Statistics South Africa (2020).

The descriptive statistics, when related to the constructs measured, revealed many deviations from normality in the distribution of the data. This is in violation of some assumptions usually made for performing certain analyses and is of concern. This could also tamper with broad generalisations based on this work and should be considered a limitation of the study.

As this investigation focused on two central objectives, namely, to report on the way in which PCs relate to IWB and to report on the way in which PCB affects IWB, it led to answering research questions such as "Do TPC and RPC predict IWB?", "What is the effect of PCB on IWB?" and "How does PCB affect the relationship between PCs and IWB?". These research questions taken together culminate in the overarching question being "What types of PC, transactional or relational, will likely affect IWB, under conditions of PCB?".

From the correlation analyses, it was concluded that although TPC had no correlation with IWB, RPC statistically and significantly correlated with IWB. The correlation with IWB was .198 (p < .001), which equates to RPC, explaining 3.9 per cent of the variance in IWB. This positive link between RPC and IWB is supported by previous findings (see Chang et al., 2013; Thompson & Heron, 2006). It provided the evidence that, theoretically and practically, RPCs promote individual innovation. The absence of the TPC–IWB link is also in line with previous research (see Aggarwal & Bhargava, 2010).

Interestingly, it was found that PCB had no effect on and cannot be considered a direct predictor for IWB, which contradicts previous findings (Lu et al., 2015; Ng et al., 2010; Vander Elst et al., 2016). Such a conclusion may be partially explained by the skewness of the data for PCB, which was beyond the range of normality (with a majority of respondents opting for the top of the scale). This extreme skewness may

be attributed to the omnipresence of PCB, which Robinson and Rousseau (1994) refer to. It could therefore be assumed that the variance in the PCB variable is too small to reflect nuances caused by higher levels of PCB. This may necessitate the development of more sensitive measures of PCB.

In addition, it also transpired (although this was not included in the original scope of the hypotheses) that TPC correlated positively with PCB (r = .246, p < .001), whereas RPC correlated negatively with PCB (r = .398, p < .001). This suggests that, under conditions of TPC, PCBs are experienced more often. The proposed conclusion agrees with Zhao et al. (2007) who stated that when employers fail to deliver on their explicit obligations, the PCB will result in immediate and extreme reactions from employees. The negative relationship between RPC and PCB suggests that in situations where RPCs are observed, PCBs are experienced less often. This conclusion is in line with the assumption that employees often attribute the breach of the relational content of the PC to a miscommunication or bad luck rather than to a deliberate breach on the part of the employer (Robinson & Morrison, 1995).

The test for moderation of PCB on the TPC–IWB link was unnecessary, as it was found that TPC does not correlate with IWB. Only the moderating effect of PCB on the relationship between RPC and IWB was tested. The results indicated that PCB does not moderate the relationship between RPC and IWB. PCB therefore does not influence the way RPC affects IWB.

CONCLUSION

In this research, a significant contribution was made by investigating relationships between PCs, PCB, and IWB, studied together in one conceptual model, something that has not been done in previous studies. The primary deduction that can be made about the relationship between the variables and IWB is that RPC relates to IWB (r = .198; p < .001), and that 3.9 per cent of the variance in IWB can be explained by this variable. Research identifying the other 96.1 per cent of the variance is therefore needed. Fair effort is invested by managers in maintaining their PCs with subordinates, assuming that PCBs may lead to negative consequences, including the withdrawal of IWB. This study found no such direct link. With regard to effects of breach, given PC, PCB was found not to moderate relationships between PCs and IWB.

Although the research shows that RPC has an effect on IWB, this effect is small. With regard to PCB, in this study, it seems to be a non-event as far as IWB is concerned. Managers should now be aware of the relative importance of establishing relational contracts with employees and maintaining these contracts when IWB is the desired outcome. As stated in the literature review, practical applications of relational contracts could include managers making connections with their employees and getting to know them better, paying attention to their concerns, assisting them with necessary resources and support, and investing in their employees' company-specific training.

This research may have affirmed certain aspects of the PC–IWB relationship, but many questions remain unanswered. Researchers are encouraged to investigate through which mechanisms PC and PCB influence IWB. Researchers are also encouraged to develop instruments more sensitive to the nuances of the PCB. These seeming flaws in the instruments may be responsible for some of the counter-intuitive results found in this study.

CHAPTER 6: PSYCHOLOGICAL CONTRACTS AND EMPLOYEE VOICE: DOES BREACH MATTER?

Botha, L., & Steyn, R. (No date). Psychological contract and employee voice: Does breach matter? [Under review]

Article 5: Psychological contracts and employee voice: Does breach matter?

Abstract

Background: Empirical evidence shows that the type of psychological contract (PC), as well as psychological contract breach (PCB), affects employees' work behaviours. One of these behaviours is employee voice (EV), which is a key to organisational dynamics.

Aim: This research aims to empirically determine how different types of PC are linked to different types of EV, and also, how PCBs affect these relationships. The paucity of literature on the relationship between all three variables necessitated this research.

Setting: The research targeted South African employees, working in medium-to-large organisations with a staff component larger than 60.

Methods: In a cross-sectional survey, respondents were asked to answer a questionnaire on PCs, PCB and EV. Correlation and regression analyses were used to test the relationships as well as the moderation effect of PCB on the PC-EV links.

Results: 620 respondents returned completed questionnaires, which showed acceptable psychometric properties.

Relational PC correlates with promotive dimensions of EV, while transactional PC and PCB correlated with prohibitive dimensions of EV. The PC-EV relationship was moderated by PCB only in a transactional PC environment, and only for the prohibitive EV dimension.

Conclusion: PCs and PCB, as well as the interaction between the terms, influence EV, particularly in hindsight, in explainable ways. The results contribute to the understanding of the relationship between these variables and provide fertile ground for the formulation of targeted hypotheses.

Practical recommendations are included.

<u>Keywords:</u> Psychological contract, psychological contract breach, constructive voice, supportive voice, defensive voice, destructive voice, moderation

Introduction

In recent years the behavioural concept of employee voice has attracted much interest from researchers, mostly due to its pervasive importance in expressing creative and novel ideas for organisational improvements (Van Dyne et al., 2003). Such activities are carried out by employees voluntarily and materialise as individual innovation or as more comprehensive innovative work behaviour (IWB) (Akhtar et al., 2016; Milliken et al., 2003; Morrison, 2011; Zagenczyk et al., 2015). Voice, defined as "discretionary communication of ideas, suggestions, concerns, or opinions about work-related issues with the intent to improve organizational or unit functioning" (Morrison, 2011, p. 375) and IWB, defined as the "intentional creation, introduction and application of new ideas within a work role, group or organization, in order to benefit role performance, the group, or the organisation" (Janssen, 2000, p. 288), show many similarities. However, for innovation to take place, the intention on the part of the actor, an employee, to give voice, must occur first. Voice is, thus, a precursor to innovation and IWB.

The extant literature provides strong evidence that employee's decision of giving voice or withholding voice (referred to as silence) (Morrison, 2014) could be dependent on a range of contextual organisational variables. A discretionary or extra-role behaviour, such as voice (Morrison, 2011; Van Dyne et al., 1995), is found to be conditional on different factors that are critical in predicting whether an employee will exhibit voice in a particular situation. These predictors include personality (Lee, Diefendorff, Kim, & Bian, 2014), transformational leadership (Hu, Zhang, & Wang, 2015), ethical leadership (Yousaf, Abid, Butt, Ilyas, & Ahmed, 2019), psychological safety (Liang et al., 2012), job satisfaction (Memon & Ghani, 2020), psychological empowerment, meaningfulness and safety (Hasan & Kashif, 2021), organisational stressors and strains (Ng & Feldman, 2012), and work-life balance (Kaya & Karatepe, 2020). While all these studies examine a broad range of factors influencing voice, more focused investigations into individual-level contexts are required (Ali Arain, Bukhari, Hameed, Lacaze, & Bukhari, 2018). The interest of this research lies specifically within individual-level settings, that is, the nature of the employee's relationship with his/her employer, known as psychological contract, and factors that influence an employee's decision to give or withhold voice.

PC and PCB

One of the most prominent frameworks for explaining social-exchange relations within the work environment aims to understand the nature of psychological contract (PC) formed between the employer and the employee (Rousseau, 1989). Honoured PCs are linked to helpful employee behaviours and constructive employment relations, as well as to engaged and committed workers (Kutaula et al., 2020; Schalk & De Ruiter, 2019; Soares & Mosquera, 2019; Tekleab et al., 2020).

The interest in the PC concept shown by academics and practitioners is continuously rising as organisations rely on managers and supervisors to drive employees' motivation and cooperation (Cullinane & Dundon, 2006). Rousseau defines these contracts as "individual beliefs, shaped by the organization, regarding terms of an exchange agreement between individuals and their organization" (1995, p. 9). PCs, further differentiated into two major types, being transactional and relational, form the bases of employment relationships within a workplace (Rousseau & McLean Parks, 1993; Rousseau & Wade-Benzoni, 1994). Transactional psychological contract (TPC) can be described as the 'monetizable' exchange relationship, where the employee values instant rewards, such as training, fair remuneration, compensation leave and so on, as well as credentials for obtaining better future employment. TPC can be characterised as "a fair day's work for a fair day's pay" (Rousseau & Wade-Benzoni, 1994, p. 466). When the employment relationship is perceived by the employee as a long-term exchange, with value placed on the relationship itself and not on the shortterm economic gains, it is believed that parties are bound by the relational psychological contract (RPC). Unlike TPCs, with their narrow monetary focus and high level of specificity in terms of the content for the exchange, RPCs involve a high degree of mutual interdependence and along with monetizable rewards (consideration for services), emphasise socio-emotional (loyalty and commitment) elements of exchange (Rousseau & McLean Parks, 1993). Fulfilled PCs are linked to trust and work engagement (Bhatnagar, 2014), organisational citizenship behaviour (OCB) (Newton et al., 2011) and higher levels of innovative work behaviour (Janssen, 2000; Newton et al., 2011; Ramamoorthy et al., 2005). In contrast, when an employee perceives that the organisation or its agent has failed to uphold its obligations, psychological contract breach (PCB) has occurred (Morrison & Robinson, 1997). A large number of empirical studies have investigated the role PCBs play in affecting

employees' behaviours (Flood et al., 2001). These studies provide convincing evidence that PCB negatively correlates with employees' in-role performance (Hartmann & Rutherford, 2015), work engagement (Agarwal, 2014b), affective commitment (Rigotti, 2009), and OCB (Lu et al., 2015).

Employee voice

A speaking-up behaviour of employees proactively offering inputs and suggestions for organisational improvements, known as voice (LePine & Van Dyne, 1998; Van Dyne & LePine, 1998), has evolved from a single construct explained as a "promotive behaviour that emphasises expression of constructive challenge intended to improve rather than merely criticise" (Van Dyne & LePine, 1998, p. 109) into a multidimensional concept, implying dichotomous characteristics of distinct types of voice, meaning that the opposite of the [positive] promotive nature of voice also exists. That is, employees do not necessarily express their voices in a constructive manner and may display [negative] prohibitive voice behaviours, which "could be either constructively or destructively focused" (Maynes & Podsakoff, 2014, p. 91).

This research utilises Maynes and Podsakoff's (2014) conceptual framework for voice, based on four distinct types of the construct, of which two types are of a promotive nature, being supportive and constructive voice behaviours, and the other two of a prohibitive nature, being defensive and destructive voice behaviours. Although being opposite in their intentions (promotive vs. prohibitive), both pairs reside on the ends of the same preservation-challenge continuum, that is, supportive and defensive voice behaviours are orientated towards preservation of status quo, whereas constructive and destructive voice behaviours are aimed at challenging the status quo, though aiming at different (opposite) outcomes. Maynes and Podsakoff (2014, p. 91) define four types of voice in the following manner; 1) supportive voice (SV) as "the voluntary expression of support for worthwhile work-related policies, programmes, objectives, procedures, etc., or speaking out in defence of these same things when they are being unfairly criticised", 2) constructive voice (CV) as "the voluntary expression of ideas, information or opinions focused on effecting organisationally functional change to the work context", 3) defensive voice (DfV) as "the voluntary expression of opposition to changing an organisation's policies, procedures, programmes, practices, etc., even when proposed changes have merit or making changes is necessary", and, finally, 4) destructive voice (DsV) as "the voluntary expression of hurtful, critical, or debasing opinions regarding work policies, practices, procedures, etc."

The four types of employee voice beg further investigations by organisational researchers. In the case of supportive and constructive voices, employees may withhold speaking up, in other words, they may resort to silence. Conceptualising it as a "purposeful" form of behaviour, Van Dyne et al. (2003, p. 1361) assert that silence is not the opposite of voice and suggest that the "actor's motivation to withhold versus expressing ideas, information, and opinions about work-related improvements" is the key differentiating factor between the two. Another reason for employees to refrain from speaking up, even if they have valuable suggestions for organisational improvements, could be because they fear that their attempts to change work practices or decisions will disrupt the status quo, and such disruptions may damage their relationships with co-workers and supervisors and lead to retaliation (Milliken et al., 2003). As a result, employees will choose to refrain from speaking up and remain silent, which will stifle ideas towards organisational innovation (Van Dyne et al., 2003).

In the case of defensive and destructive voices, employees might use these types of voice to disrupt the group's functioning and to speak up against changing work practices or decisions until their personal demands or grievances are resolved (Ng et al., 2014). Thus, it is imperative to identify the conditions under which employees will be choosing to use any of the four voices, specifically when they perceive the breaches of their psychological contracts. This can provide a new direction for research in the field of organisational sciences.

Links between PC, PCB and voice

While the effects of PCB on voice have been widely researched, it is evident that studies exploring the influence of PC on voice are limited, with only a few researchers showing specific interest in the link between PC/PCB and voice (see LePine & Van Dyne, 1998; Liu, Yang, & Chen, 2020; Ng & Feldman, 2012; Rees, Alfes, & Gatenby, 2013). These studies utilised the traditional "exit, voice, and loyalty" framework (Hirschman, 1970), and tested the links with voice presented as a single construct. For example, LePine and Van Dyne (1998) correlate higher voice with employee satisfaction with the group. The meta-analysis of Ng and Feldman (2012) explores the relationship between workplace stressors and strains (specifically, dissatisfaction with

pay and promotions, strained relationships with supervisors, breaches of promises and expectations, all related to PCB), work behaviours (specifically, voice) and job performance (creativity and implementation of new ideas). The results of this study confirmed that, when employees experience major work strains and stressors (such as PCB), they are unlikely to exercise voice behaviour and to contribute their suggestions for work improvements. Another empirical study presents interesting findings on the relationships between relational and transactional contract breaches and voice behaviour. Liu et al. (2020) found that neither breaches of relational nor breaches of transactional psychological contracts have a direct effect on voice behaviour. When Rees et al. (2013) investigated the factors influencing voiceengagement link, the authors found that both trust in senior management and the employee-line management relationship mediated this link. Employees who experienced positive relationships with their senior and line managers recognised opportunities for voice more often, with this being seen as a reciprocal act.

The advancements in the development of the concept of voice are marked by the departure from a unitary approach (as 'voice') towards the multidimensional conceptualisation, with different types of voice being defined and operationalised. Distinct types of voice, such as proactive voice (LePine & Van Dyne, 1998), constructive and aggressive (Hagedoorn, Van Yperen, Van De Vliert, & Buunk, 1999; Ng et al., 2014), and promotive and prohibitive (Guo, 2017; J. Liang et al., 2012) were tested in a variety of models. For example, Ng et al. (2014) investigated the link between PCB and two types of voice, specifically, constructive and aggressive. The authors found that PCB was negatively related to constructive voice behaviours, but the hypothesis of PCB having a direct relationship with aggressive voice behaviour was not supported. However, adding leader-member exchange (LMX) as a moderator, the authors concluded that the positive relationship between PCB and aggressive voice was lessened when employees experienced higher levels of LMX. Interestingly, these findings contradicted an earlier study by Turnley and Feldman (1999) who found that PCB was significantly and positively related to aggressive voice. Employees used aggressive voice to express their dissatisfaction with work situations, which is aligned with the findings of Rusbult, Farrell, Roges and Mainous (1988), which state that employees' responses to dissatisfying jobs may differ from constructive to very destructive. As a result, PCBs may not only reduce the positive work behaviours but may increase negative work behaviours (Ng et al., 2014). This suggests that, under conditions of breach, employees may choose to withhold constructive voice and engage in more counter-productive work behaviours, such as destructive voice. In the study investigating the effects of PCB on employee's promotive and prohibitive voice, Guo (2017) found that breaches relate negatively to both promotive and prohibitive employee voice. Adding organisational trust as possible moderator, the results show that organisational trust fully mediated this relationship. It is interesting to note one specific study examining within- and between-culture differences in relationships between psychological contract breach and exit and constructive voice among a sample of employees in Russia and Finland (Balabanova, Ehrnrooth, Koveshnikov, & Efendiev, 2019). The results revealed that Russian employees were responsive to breaches of transactional contracts, whereas employees in Finland were sensitive to both, transactional and relational breaches. Furthermore, while neither relational nor transactional breaches were associated with voice among Russian employees, the link between relational breaches and constructive voice among Finnish employees was found to be statistically significant and negative.

From this review, it is evident that, despite growing interest in antecedents of voice, the research is limited. The possibility that different types of PC (and breaches linked to each of these types) may serve as predictors of voice, operationalised as a four-way multidimensional construct, seem unresearched or, at least, under-researched. To bridge the gap, this study attempts to answer the question "Which type of voice will likely be activated under conditions of psychological contract breach, given the dominant type of perceived psychological contract?".

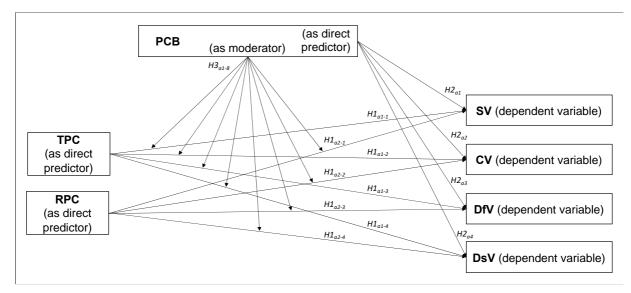
This paper makes a contribution in a number of ways. Firstly, it adds complexity to the debate on PC, PCB, and voice. The voice construct is operationalised based on the framework of Maynes and Podsakoff (2014), conceptualising voice as a four-way typology. From the literature review, the links between two PC types (transactional and relational), PCB and four distinct types of voice, being SV, CV, DfV and DsV, have not previously been studied within one conceptual model. Secondly, this research attempts to explain the model in a theoretically new, or at least nuanced manner. Traditionally, the relationship between PC, PCB, and voice variables was explained mainly using the social exchange theory (SET) (Blau, 1964) and/or psychological contract theory (PCT) (Robinson & Rousseau, 1994; Rousseau, 1995; Rousseau &

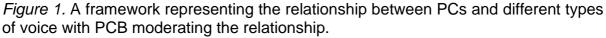
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McLean Parks, 1993). This may be sufficient when voice variables are studied as a single construct. With the increased complexity of including four types of voice in one model, it became evident that the usage of SET and/or PCT alone to explain the links within the model was not enough. Thus, another contribution made by this research is that of adding conservation of resources theory (CORT) (Hobfoll, 1989, 2001) in order to explain how PCB, viewed as an organisational stressor, influences employee discretionary behaviour, such as voice. Next, from a practical perspective, this study assists managers and practitioners with better understanding of the importance of managing exchange relationships with their subordinates in such a way that employees are willing to engage in extra-role behaviours, specifically when they are expected to voice new ideas and suggestions for organisational improvements. Finally, this study follows a straightforward design methodology that can be replicated and interpreted with ease.

Research framework and hypotheses

The research framework appears in Figure 1. It suggests a relationship between TPC and/or RPC and voice, with PCB as possible moderator.





Two particular theories formed the basis for this empirical study, one of them being PCT (Robinson & Rousseau, 1994; Rousseau, 1995, 2011; Rousseau & McLean Parks, 1993) and the other being CORT (Hobfoll, 1989). The theories complement each other in explaining relationships between the variables.

PCT, stemmed from the SET (Blau, 1964) and, specifically, its central concept of reciprocity argues that, when employees receive economic and socio-emotional resources from their employer, they feel obligated to respond in kind (Cropanzano & Mitchell, 2005). Effective psychological contracts, and particularly the honouring of these contracts by the employers, lead to employees' willingness to reciprocate with discretionary or extra-role activities, such as voice (Morrison, 2011; Van Dyne et al., 1995). Given that employees prefer to characterise their relationships with employers as social rather than economic exchanges (Dabos & Rousseau, 2004), for employees to engage in discretionary voice behaviours, a sense of beneficial long-term investment (RPC) is important. Voicing of suggestions for organisational improvements is unlikely for employees who value the monetary and short-term benefits (TPC) as a basis of their employment relationship. It is, therefore, intuitively logical to assume that RPC may impact on employee voice behaviour more significantly than TPC. Furthermore, based on the SET's norm of reciprocity, when employees perceive that their psychological contracts are fulfilled, it is also logical to predict that they are likely to reciprocate with more supportive and constructive voices and less with defensive and destructive voices. These assumptions suggest the following hypotheses:

H1₀: PCs do not have a direct impact on employee voice H1_{a1-1}: TPC has a direct impact on Supportive voice (SV) H1_{a1-2}: TPC has a direct impact on Constructive voice (CV) H1_{a1-3}: TPC has a direct impact on Defensive voice (DfV) H1_{a1-4}: TPC has a direct impact on Destructive voice (DsV) H1_{a2-1}: RPC has a direct impact on Supportive voice (SV) H1_{a2-2}: RPC has a direct impact on Constructive voice (CV) H1_{a2-3}: RPC has a direct impact on Defensive voice (DfV) H1_{a2-4}: RPC has a direct impact on Defensive voice (DfV)

Another central assumption of PCT is that the employer-employee relationship is based on the employees' expectations of their organisations meeting a large number of both explicit and implicit obligations, which together encompass the employment conditions (Deery et al., 2006; Morrison & Robinson, 1997; Rousseau, 1989).

However, when employers fail to fulfil those obligations, PC breaches occur, leading to various undesirable consequences in employment relationships. For example, PCBs result in decreased levels of mutual trust and respect between employees and employers (Robinson, 1996), which in turn result in negative reciprocating behaviours, such as lower affective commitment (Rigotti, 2009), lower levels of work engagement (Agarwal, 2014b), decreased in-role performance (Hartmann & Rutherford, 2015), and lower levels of organisational citizenship behaviour (Lu et al., 2015). Therefore, it can be hypothesised that PCB will have a direct effect on each type of voice. Moreover, it is predicted that, under conditions of PCB, defensive and destructive voices will be activated more often than supportive and constructive voices. Based on this discussion, the following hypotheses are proposed:

H2₀: PCB does not have a direct impact on employee voice
H2_{a1}: PCB has a direct impact on SV
H2_{a2}: PCB has a direct impact on CV
H2_{a3}: PCB has a direct impact on DfV
H2_{a4}: PCB has a direct impact on DsV

The CORT (Hobfoll, 1989) is particularly valuable in explaining employees' reactions to PCB. This theory claims that employees will strive to protect or accumulate resources. "Resources", in this context, are defined as "those objects, personal characteristics, conditions, or energies that are valued by the individual" (Hobfoll, 1989, p. 516), such as time, money, health and relationships. When these are perceived as lost, employees may choose to withdraw in an effort to conserve or prevent further losses of these resources. CORT suggests that the loss of resources is the main consequence of the stress process. Therefore, under conditions of PCB, when these involve job, organisational, or social stressors (Ng & Feldman, 2012), it is logical to assume that employees are likely to give up their valuable resources while trying to cope with stress in their immediate work environment (Hobfoll, 2001). Although voice is considered as a form of OCB (Van Dyne & LePine, 1998) in the sense that it promotes and strengthens the organisational social system (Organ, 1990), it is also often perceived as a risky and costly type of behaviour, aimed at disrupting the current status quo (Morrison, 2014). Even constructive and noble ideas can upset the status quo and disturb existing interpersonal relationships (Van Dyne &

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LePine, 1998). Given the aforementioned, CORT theory provides a solid theoretical foundation to predict that social exchange imbalances, explained as PCBs (Morrison & Robinson, 1997), may lead to employees responding negatively to breaches of their PCs while at the same time withholding their supportive and constructive voices and raising defensive and destructive voices. Thus, the following is hypothesised:

H3_{0a}: PCB does not affect the relationship between PCs and employee voice

H3_{a1}: PCB moderates the relationship between TPC and SV
H3_{a2}: PCB moderates the relationship between TPC and CV
H3_{a3}: PCB moderates the relationship between TPC and DfV
H3_{a4}: PCB moderates the relationship between TPC and DsV
H3_{a5}: PCB moderates the relationship between RPC and SV
H3_{a6}: PCB moderates the relationship between RPC and CV
H3_{a7}: PCB moderates the relationship between RPC and DfV
H3_{a8}: PCB moderates the relationship between RPC and DfV

The method for testing the aforementioned hypotheses will be described below.

Method

This study was designed as a cross-sectional survey, which is appropriate for data collection and testing of the proposed hypotheses.

Population and sample characteristics

In order to achieve variability in responses (Zagenczyk, Gibney, Kiewitz, & Restubog, 2009), a diverse sample population was targeted, consisting of employees of all races, genders and ages and at different levels of responsibility. A group of students enrolled in the Masters in Business Leadership programme assisted with data collection by approaching organisations with more than 60 employees. The size of organisations was determined based on the assumption that a wide range of PCs would be in place in those organisations and that employees would be exposed to relevant organisational dynamics. Human resources departments in each of the selected organisations assisted with drawing a random selection of employees for participation

in the study. As a result, a total of 620 participants provided complete data on the variables of interest. There were 313 men (50.5%) and 301 women (48.5%) (data from 6 respondents were missing). Most respondents, 440, were black (71%), 103 respondents were white (16.6%), 42 coloured (6.8%) and 28 were Asian (4.5%). In the sample, 254 respondents (41%) had obtained a higher degree or diploma, 203 respondents (32.7%) had their 1st degree or diploma, 138 participants (22.3%) had matric (senior certificate), and 19 (3.1%) had less than 12 years of education. The average age was 37.8 years and the sample consisted of respondents from a well-distributed age group (standard deviation of 8.841), varying between 21 and 64 years. The average tenure was 6.59 years and ranged between 1 and 42 years (standard deviation of 5.848). It was concluded that most respondents were well qualified to report on perceptions of employment relations as well as observed organisational practices.

Measures

A self-report survey was conducted across all three measures. This approach is considered acceptable as perceptions of employees on the nature of their PC, as well as the extent of its fulfilment or breach by the employer (PCB), are individual and subjective (Rousseau, 1995). With regard to voice, self-reported measures are widely used in the organisational research field (Axtell et al., 2000; Parker et al., 2006) due to employees, in comparison with their supervisors and peers, being more aware of nuances in their suggestions and own beliefs and whether these carry an instrumental value for the group or the organisation (Ng et al., 2014). Finally, self-reporting on discretionary behaviour, such as voice (LePine & Van Dyne, 1998), provides a better insight into an individual's assessment of intensity and frequency of own voice behaviour.

PC. PC was measured with the Millward and Hopkins (1998) Psychological Contract Scale (PCS). The original 33-item instrument (20 items for transactional contract and 13 items for relational contract scales) was reduced to five items for measuring transactional contracts and five items for measuring relational contracts, based on the highest average factor loadings of each item, as recommended by Bateman and Crant (1993) and Strydom (2013). Each PC type was measured on a seven-point Likert scale ranging from 1 - "Strongly disagree" to 7 - "Strongly agree". Sample items: "I only carry out what is necessary to get the job done" for transactional contract and "To me,

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working for this organisation is like being a member of a family" for relational contract. Millward and Hopkins (1998) reported a Cronbach's alpha of .86 for all relational items, and .88 for all transactional items.

PCB. PCB was measured with Robison and Morrison's (2000) nine-item scale, measuring the violation with four items and the breach with five items. The motivation behind reporting on a total score for both violation and breach is based on that, theoretically, employees' experiences of either violation or breach or both result in the [negative] work outcomes (Bal et al., 2008; Raja et al., 2004; Tekleab & Taylor, 2003), and both would affect discretionary behaviours, such as voice, in the same direction. Robinson and Morrison (2000) report a Cronbach's alpha of .85 for violation and of .88 for breach. Reporting of breach and violation is done by the reverse scoring of a fulfilment measure on a Likert scale from 1 to 5 (disagree–agree). The sample item - "Almost all the promises made by my employer during recruitment have been kept so far" (reversed).

Voice. Voice was measured with Maynes and Podsakoff's (2014) 20-item voice scale with five items related to each sub-scale, being supportive, constructive, defensive, and destructive voice sub-scales. Four types of voice were measured on a 7-point Likert scale, where 1 is "Strongly disagree" and 7 – "Strongly agree". The authors reported Cronbach's alphas for supportive voice of .89; for constructive voice of .95; for defensive voice of .92, and for destructive voice of .93. The sample items are: "I defend useful organisational policies when other employees unfairly criticise the policies" (supportive voice), "I frequently make suggestions about how to do things in new or more effective ways at work" (constructive voice), "I vocally argue against changing work practices, even when making the changes is necessary" (defensive voice), and "I frequently make overly critical comments regarding how things are done in the organisation" (destructive voice).

Statistical analyses

The analyses commenced with calculating and interpreting descriptive statistics of the respondents, and to come to some conclusion as to how well the study mirrors the populations it is supposed to represent. The StatsSA's (2020) information was used in this analysis.

Test for normality of the collected data was analysed in terms of skewness and kurtosis. Skewness and kurtosis scores were interpreted following the guidelines of Field (2009). If the observed SPSS value divided by the standard error of that value is larger than 1.96, or smaller than -1.96, the data is interpreted as a serious deviation from normality.

The reliability was calculated using the Cronbach's alpha coefficient. All instruments were assessed for internal consistency level in line with recommendations by Tavakol and Dennick (2011) regarding Cronbach (larger than .90 (excellent), .89 - 0.80 (good), .79 - .70 (acceptable), .69 - .60 (questionable), .59 - .50 (poor), and smaller than .50 (unacceptable)). In this study, and aligned with Pallant (2013), alpha coefficients were accepted as being satisfactory where the alpha scores exceeded .70, with scores above .80 being accepted as desirable.

For factorial validity, the data was firstly analysed for adequacy. Kaiser–Meyer–Olkin's measure of sampling adequacy (KMO) and Bartlett's test of sphericity were performed, and the results were considered acceptable when the KMO were excellent (> .90) (Field, 2009), and the Bartlett's test value being significant (p < .001) (Pallant, 2013). When analysing factor loadings, the absence of significant cross-loadings was interpreted as indicative of factorial validity.

Pearson product-moment correlations (r) were calculated next. Correlations with a significance value of less than .01 were deemed as significant (given the relatively large sample), with r < .10 (or < .10) deemed insignificantly small, .10 to .29 (or -.10 to -.29) as small, .30 to .49 (or -.30 to -.49) as medium, and .50 to 1.0 (or -.50 to -1.0) as large (Cohen, 1988).

Regression analyses were also performed. In this study, the total size of the regression coefficient was of less concern, with the focus primarily on the significance of the beta values of the different predictors. Statistically significant predictors (p < .01) were deemed as unique and substantial contributors to the variance in the dependent variable.

Moderation was tested based on the procedures suggested by Fairchild and MacKinnon (2009). This method encompasses doing a regression without including the moderator as a variable in the regression (Model 1), and thereafter adding the moderator (PCB; Model 2), and finally adding the moderator and the interaction effect

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(predictor variable x moderator; Model 3). In general, the interest is in ΔR^2 , using Model 1 as a baseline model. If ΔR^2 is positive and significant across models, this suggests improved models, and the specific importance of adding the additional variable. Should PCB directly predict voice (Model 2, with a PCB having a significant beta value), it is representative of a direct effect, making it an antecedent of voice. Should the interaction between PCB and any subcomponent be significant (Model 3, with a TPC x PCB or RPC x PCB having significant beta values), this is representative of PCB moderating the relationship between the PC type and voice.

Results

Descriptive statistics for variables

The descriptive statistics for all measures variables used in this study will be presented and discussed.

Table 1

			Skewness*		Kurto	sis [#]
	Mean	Std. Dev.	Value	Z	Value	Z
TPC	4.406	1.628	-0.145	-1.481	-1.005	-5.131
RPC	2.994	1.495	0.817	8.326	0.026	0.135
РСВ	3.938	0.931	-0.854	-8.708	0.249	1.275
SV	4.797	1.134	-1.178	-12.008	1.493	7.619
CV	4.956	1.140	-1.506	-15.341	2.616	13.349
DfV	1.120	1.368	1.336	13.610	1.207	6.158
DsV	0.850	1.250	1.868	19.030	3.291	16.794

Descriptive statistics for TPC, RPC, PCB, SV, CV, DfV, and DsV (N = 620)

Note: The subcomponents of voice are presented as follows in this table: SV: Supportive Voice; CV: Constructive Voice; DfV: Defensive Voice; DsV: Destructive Voice. *Standard Error for skewness = 0.098. #Standard Error for kurtosis = 0.196.

Aligned with Field's (2009) description of normality range (both scores being smaller than 1.96, irrespective of the sign), skewness and kurtosis for most subscales met the normality requirement, except for CV and DsV. The skewness scores were beyond the normality range, with deviations at RPC (where most respondents opted for the bottom of the scale) and PCB (where most respondents opted for the top of the scale). Opting for the top of the scale also occurred in responses on SV and CV, and opting

for the bottom of the scale occurred in responses on DfV and DsV. With kurtosis, the statistics reflect that there was a provision for outliers as far as TPC was concerned, as well as with all four types of voice. It is interesting to note the respondents' scores for CV and DsV. Though skewness and kurtoses values were beyond what could be deemed as reflective of a normal distribution, there were still significant variances in the scores, as indicated in the standard deviations. Though the distributions were far from perfect, it was decided to progress with the analyses without applying any normalisation techniques.

Reliability and validity

The reliability was addressed through the calculation of Cronbach's alpha coefficients and the validity through the factor analysis.

Table 2

Instrument	Number of items	Cronbach's alpha coefficient
Transactional psychological contract	5	.764
Relational psychological contract	5	.794
Psychological contract breach	9	.945
Supportive voice	5	.878
Constructive voice	5	.931
Defensive voice	5	.904
Destructive voice	5	.897

Reliability of measures for TPC, RPC, PCB and SV, CV, DfV and DsV (N = 620)

Given the guidelines of Pallant (2013), suggesting that the reliability score is reported as satisfactory when the alpha exceeds .70 and desirable when the alpha is above .80, the reliability ranged from satisfactory to desirable.

Next, the results for the factorial validity of measures for TPC, RPC, PCB and different types of voice will be discussed. Prior to engaging in the analyses, the factorial validity of the data was tested. This was satisfactory when the TPC and RPC items were entered into the same model, with Kaiser-Meyer-Olkin's Measure of Sampling Adequacy of .774 and Bartlett's Test of Sphericity providing satisfactory results (chi-square value of 1885.94; df = 45, p < .001), as a guideline for acceptability. The

theorised two factors declared 54.7% of the variance in the data. When a Varimax rotation with Kaiser Normalization was performed on the Principal Component Analysis (refer to Table 3), it revealed two clear factors, with all the TPC items (without any cross-loadings) loaded on the first factor, while the same occurred with regard to all the items of RPC.

Table 3

	Component				
Item Name	1	2			
TPC item 1	0.077	0.724			
TPC item 2	-0.211	0.517			
TPC item 3	0.097	0.816			
TPC item 4	-0.011	0.763			
TPC item 5	0.048	0.753			
RPC item 1	0.667	0.191			
RPC item 2	0.769	-0.020			
RPC item 3	0.765	-0.036			
RPC item 4	0.712	-0.158			
RPC item 5	0.784	0.044			

Rotated component matrix for TPC and RPC, given Varimax rotation

Note: All values higher than 0.5 are marked in bold in the table so as to facilitate easier interpretation. Next, the factorial validity of PCB will be reported.

In data analysis for PCB, two possible avenues to factorial validity were followed, focussing on PCB as a single construct, and as a two-dimensional construct defined as violation (PCV) and breach (PCB). When entering all nine items into the same model, Kaiser-Meyer-Olkin's Measure of Sampling Adequacy of .932 and Bartlett's Test of Sphericity provided satisfactory results (chi-square value of 4924.404; df = 36, p < .001), as a guideline for acceptability. With the tested one-factor solution, 69.7% of the variance in the data was declared, with all nine items having loadings higher than 0.754. When testing for a two-factor solution, 79.9% of the variance in the data was declared, with all nine items having loadings higher than 0.754. The results of these two analyses are presented in Table 4.

Table 4

	One-factor theorisation	Two-factor theorisation	
Item Name	Component 1	Component 1	Component 2
PCV item 1	0.754	0.270	0.839
PCV item 2	0.821	0.335	0.866
PCV item 3	0.809	0.415	0.756
PCV item 4	0.847	0.474	0.747
PCB item 1	0.849	0.779	0.398
PCB item 2	0.857	0.838	0.342
PCB item 3	0.850	0.826	0.345
PCB item 4	0.856	0.824	0.356
PCB item 5	0.865	0.851	0.339

Rotated component matrix for PCB, given Varimax rotation

It is interesting to note that, in the two-factor solution, no significant cross-loadings occurred. The results in Table 4 reveal that PCV and PCB could be theorised as distinct concepts, aligned with Robinson and Morrison (2000). However, it could also be conceptualised as a single construct, and it will be used as such in this report.

The factorial validity for voice was investigated next. When entering all 20 items into the same model, Kaiser-Meyer-Olkin's Measure of Sampling Adequacy of .877 and Bartlett's Test of Sphericity provided satisfactory results (chi-square value of 8807.601; df = 190, p < .001). With the tested four-factor solution, 72.84% of the variance in the data was declared, where all 20 items had loadings higher than .704.

Table 5

Item	1	2	3	4
SV1	0.136	-0.046	-0.131	0.750
SV2	0.178	-0.069	-0.055	0.820
SV3	0.241	-0.099	-0.079	0.765
SV4	0.145	-0.042	-0.123	0.828

Rotated component matrix for SV, CV, DfV, and DsV, given Varimax rotation

Item	1	2	3	4
SV5	0.144	-0.106	-0.073	0.808
CV1	0.777	-0.041	0.005	0.273
CV2	0.855	-0.024	-0.035	0.150
CV3	0.905	-0.034	-0.051	0.173
CV4	0.905	0.015	-0.066	0.155
CV5	0.887	-0.010	-0.047	0.134
DfV1	-0.032	0.776	0.200	-0.002
DfV2	0.024	0.806	0.231	-0.054
DfV3	0.020	0.839	0.192	-0.115
DfV4	-0.059	0.869	0.202	-0.103
DfV5	-0.048	0.813	0.248	-0.107
DsV1	-0.040	0.168	0.807	-0.162
DsV2	-0.057	0.215	0.826	-0.053
DsV3	-0.032	0.204	0.863	-0.047
DsV4	0.000	0.236	0.834	-0.089
DsV5	-0.071	0.280	0.704	-0.144

The results were very encouraging, clearly affirming the factorial validity of the measure of voice. Both reliability and factorial validity information supported the use of all the instruments.

Relationships between the variables

In this section, the relationships between all the variables (TPC, RPC, PCB, and SV, CV, DfV, and DsV) are presented through the correlation coefficient and hierarchical linear regression analyses. These results will address all the set hypotheses.

Correlation analyses

The Pearson correlation coefficient was used to measure the relationship between seven variables. Table 6 presents the coefficients and the significance levels to determine relationships between the variables.

Table 6

	RPC	TPC	PCB	SV	CV	DfV	DsV
RPC	1	.016	398***	.175***	.196***	.076	123**
TPC	.016	1	.246***	188***	123**	.309***	.208***
PCB	398***	.246***	1	208***	042	.260***	.329***
SV	.175***	188***	208***	1	.399***	205***	250***
CV	.196***	123**	042	.399***	1	069	114**
DfV	.076	.309***	.260***	205***	069	1	.501***
DsV	123**	.208***	.329***	250***	114**	.501***	1

Correlations between TPC, RPC, PCB, and SV, CV, DfV, and DsV (N=620)

*** < .001; ** < .01; * < .05

From Table 6, it is evident that RPC positively and significantly relates to SV and CV, and that RPC relates to DsV significantly and negatively. The practical significance of these correlations was small. With regard to TPC, the correlation with all four types of voice was statistically significant. Specifically, TPC relates to SV and CV negatively, but with DfV and DsV positively. This addresses Hypothesis 1, rejecting the H1^o hypothesis and granting a conclusion that both RPC and TPC relate to voice, with the exception of the RPC and DfV, which were found to be statistically non-related.

It is also clear from Table 6 that PCB is a direct predictor of the three types of voice. The effect of PCB on SV is statistically significant and negative, while on DfV it is statistically significant and positive, and the relationship between PCB and DsV is found to be statistically significant and positive. The finding of the relationship between PCB and CV being statistically non-significant is surprising, as it contradicts the conventional theory. It was expected that PCB would relate to CV negatively and significantly, meaning that the higher the perceived level of PCB, the lower the CV would be. In our sample, this relationship was insignificant. This addresses Hypothesis 2 and allows us to reject H2₀, thus implying that PCB is a direct predictor of SV, DfV and DsV, but not the CV.

Beyond the scope of the hypotheses, it is also visible from Table 6 that TPC correlates positively with PCB, while RPC correlates negatively with PCB – in both cases, significantly. This suggests that, under conditions of TPC, PCB is experienced more

often. The relationship between RPC and PCB is the opposite, which may suggest that, in situations where RPCs are observed, PCBs are experienced less often.

Given that RPC relates to three types of voice, being SV, CV and DsV; that TPC relates to all four types of voice; and that PCB is found to be a direct predictor of three types of voice, these being SV, DfV, and DsV, we proceeded to test more complex models, with the hypotheses where PCB moderates the relationships between each of the contract types and each of the voice types (H3_{a1} and H3_{a2}).

<u>Regression analyses: The moderation effect of PCB on the relationship between TPC</u> and SV, CV, DfV and DsV

To test for moderation effects, recommendations for using regression analyses were considered (Fairchild & MacKinnon, 2009). Three models were tested: Model 1: TPC predicts SV, CV, DfV and DsV; Model 2: TPC and PCB predict SV, CV, DfV and DsV; Model 3: TPC, PCB, and the interaction between TPC and PCB predict SV, CV, DfV and DsV.

Table 7

	Dependent variables				
	SV	CV	DfV	DsV	
Model & Predictors		Model s	summary		
1 TPC	R = .188	R = .123	R = .309	R = .208	
	$R^2 = .035$	$R^2 = .015$	$R^2 = .096$	$R^2 = .043$	
	$R^{2}_{adj} = .034$	$R^{2}_{adj} = .014$	$R^{2}_{adj} = .094$	$R^{2}_{adj} = .042$	
2 TPC, PCB	R = .252	R = .124	R = .363	R = .354	
	$R^2 = .063$	R ² = .015	R ² = .132	R ² = .126	
	$R^{2}_{adj} = .060$	$R^{2}_{adj} = .012$	$R^{2}_{adj} = .129$	R ² adj = .123	
3 TPC, PCB, TPC x	R = .254	R = .125	R = .398	R = .406	
PCB	$R^2 = .065$	$R^2 = .016$	R ² = .159	R ² = .165	
	$R^{2}_{adj} = .060$	$R^{2}_{adj} = .011$	$R^{2}_{adj} = .154$	R ² adj = .161	
		ANG	AVC		
1 TPC	F(1,618) = 22.651 ***	F(1,618) = 9.520***	F(1,618) = 65.427***	F(1,618) = 27.965***	
2 TPC, PCB	F(2,617) = 20.848 ***	F(2,617) = 4.798***	F(2,617) = 46.817***	F(2,617) = 44.306***	
3 TPC, PCB, TPC x PCB	F(3,616) = 14.212 ***	F(3,616) = 3.241**	F(3,616) = 38.691***	F(3,616) = 40.557***	

Model Summary, ANOVA, and Coefficients for TPC, PCB, and SV, CV, DfV and DsV

	Regression Coefficients (Std. Beta)					
1 TPC	188***	123**	.309***	.208***		
2 TPC	146***	120**	.261***	.135***		
2 PCB	172***	012	.196***	.296***		
3 TPC	295**	179	.907***	.918***		
3 PCB	263**	048	.589***	.773***		
3 TPC X PCB	.197	.078	851***	-1.031***		

*** < .001; ** < .01; * < .05

The two types of voice most affected by TPC and PCB, and the interaction between TPC and PCB were DsV ($R^2 = .165$) and DfV ($R^2 = .159$). Thus, approximately 16% of the variance in these two types of voice could be explained by the models. These figures are significantly higher than the 6.5% and 1.6% variance explained in SV ($R^2 = .065$). and CV ($R^2 = .016$) respectively.

The primary focus in these analyses was to establish the moderation effects of PCB on the relationship between TPC and the different types of voice. Introducing the interaction variable (Model 3) improved the prediction of SV by .2% ($\Delta R^2 = .002$), CV by 1% ($\Delta R^2 = .001$), DfV by 2.7% ($\Delta R^2 = .027$), and DsV by 3.9% ($\Delta R^2 = .039$).

When considering the regression coefficients, particularly those in Model 3, it can be observed from Table 7 that the interaction terms (TPC X PCB) were not significant for SV and CV, but significant for DfV and DsV. Moderation thus occurred at DfV and DsV, where PCB moderated the relationship between TPC and DfV, and TPC and DsV. However, this moderation is only partial, as PCB remains a direct predictor of these types of voice.

Regression analyses: The moderation effect of PCB on the relationship between RPC and SV, CV, DfV and DsV

Although it is evident from Table 6 that correlation between RPC and DfV was found statistically insignificant, the analysis of the effect of PCB on the RPC-DfV link was included in the regression analyses for the sake of completeness. Three models were tested: Model 1: RPC predicts SV, CV, DfV, and DsV; Model 2: RPC and PCB predict SV, CV, DfV, and DsV; Model 3: RPC, PCB, and the interaction between RPC and PCB predict SV, CV, DfV, and DsV.

Table 8

	Dependent variables					
	SV	CV	DfV	DsV		
Model & Predictors	Model summary					
1 RPC	R = .175	R = .196	R = .076	R = .123		
	R ² = .031	$R^2 = .038$	$R^2 = .006$	R ² = .015		
	$R^{2}_{adj} = .029$	$R^{2}_{adj} = .037$	$R^{2}_{adj} = .004$	$R^{2}_{adj} = .014$		
2 RPC, PCB	R = .231	R = .199	R = .325	R = .329		
	$R^2 = .053$	$R^2 = .040$	$R^2 = .106$	R ² = .108		
	$R^{2}_{adj} = .050$	$R^{2}_{adj} = .037$	$R^{2}_{adj} = .103$	R ² adj = .106		
3 RPC, PCB, RPC x	R = .231	R = .200	R = .365	R = .335		
PCB	$R^2 = .053$	$R^2 = .040$	R ² = .133	R ² = .113		
	$R^{2}_{adj} = .049$	$R^{2}_{adj} = .035$	$R^{2}_{adj} = .129$	$R^{2}_{adj} = .108$		
		AN	OVA			
1 RPC	F(1,618) =	F(1,618) =	F(1,618) =	F(1,618) =		
	19.534 ***	24.588***	3.548	9.494**		
2 RPC, PCB	F(2,617) =	F(2,617) =	F(2,617) =	F(2,617) =		
	17.431 ***	12.785***	36.465***	37.533***		
3 RPC, PCB, RPC x	F(3,616) =	F(3,616) =	F(3,616) =	F(3,616) =		
PCB	11.602 ***	8.513***	31.566***	26.039***		
	R	egression Coeff	ficients (Std. Be	ta)		
1 RPC	.175***	.196***	.076	123**		
2 RPC	.110*	.213***	.213***	.009		
2 PCB	165***	.043	.345***	.333***		
3 RPC	.116	.199	.794***	.233		
3 PCB	161	.035	.671***	.458***		
3 RPC X PCB	006	.013	566***	218		

Model summary, ANOVA, and Regression Coefficients for RPC, PCB and SV, CV, DfV and DsV

*** < .001; ** < .01; * < .05

The voice type most affected by RPC and PCB, and the interaction between RPC and PCB, was DfV ($R^2 = .133$), where 13.3% of the variance could be explained by the models. This is indeed interesting, as it was found that RPC does not have a direct relationship with DfV (R = .076, as presented in Table 6). The same variables explained 5.3%, 1.4% and 11.3% of the variance in SV ($R^2 = .053$), CV ($R^2 = .040$), and DsV ($R^2 = .113$).

In order to establish the moderation effects of PCB on the relationship between RPC and the different types of voice, it is important to assess the interaction effects. Introducing the interaction variable (Model 3) did not improve the prediction of SV or

CV. It was, however, found that, with DfV, there was an improvement of 2.7% ($\Delta R^2 = .027$), and an insignificant 0.5% for DsV ($\Delta R^2 = .005$).

When considering the regression coefficients, particularly those in Model 3, it can be observed from Table 8 that the interaction terms (RPC X PCB) were not significant for SV, CV and DsV. Therefore, moderation did not occur in predicting any of these types of voice. It did, however, occur in the RPC-DfV link, where the interaction term (RPC X PCB) was found statistically significant. As indicated previously, RPC does not correlate with DfV, thus it is the PCB-DfV link that was moderated by RPC, implying that the positive relationship between PCB and DfV was lessened when employees experienced higher levels of RPC. Even though this moderation is only partial, PCB remains a direct and dominant predictor of DfV, as per Model 3.

Hypotheses outcomes

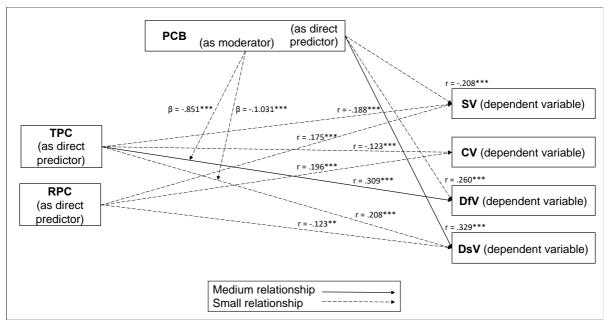
Given the correlation results (Table 6), the first hypothesis could be addressed. The general null hypothesis, reading H_{10} : PCs do not have a direct impact on employee voice, was rejected. TPC correlated significantly with SV (r = -.188, p < .001, 3.4% of the variance), CV (r = -.123, p < .001, 1.4% of the variance), DfV (r = .309, p < .001, 9.4% of the variance), and DsV (r = .208, p < .001, 4.3% of the variance). With regard to the relationship between RPC and voice, the null hypothesis could not be rejected in one instance, where the correlation between RPC and DfV was statistically insignificant at .076 (p = .060). The other statistics were as follows: SV (r = .175, p < .001, 2.9% of the variance), CV (r = .196, p < .001, 3.7% of the variance) and DsV (r = -.123, p < .01, 1.4% of the variance). Summary: Considering practical significance, as explained in the statistical analyses section, it could be stated that PCs have only a small direct effect on voice, with the exception of the DfV, where there is a medium and negative effect, suggesting that TPC and DfV are negatively related.

The second hypothesis could also be addressed by considering the correlation matrix presented in Table 6. The general null hypothesis reads as follows: $H2_0$: PCB does not have a direct impact on employee voice. This hypothesis could not be rejected in full. SV (r = -.208, p < .001, 4.3% of the variance), DfV (r = .260, p < .001, 6.7% of the variance), and DsV (r = .329, p < .001, 10.8% of the variance) correlated significantly with PCB, though this was not the case with CV (r = -.042, p = .297). Summary: Considering practical significance, we could state that PCB has only a small direct

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effect on voice, with the exception of the DsV, where there is a medium and positive effect, suggesting that PCB and DsV are positively related.

The third hypothesis reads as follows: $H_{3_{0a}}$: PCB does not affect the relationship between PCs and each type of voice. The third hypothesis can be addressed by considering the regression analyses presented in Table 7 (for TPC) and Table 8 (for RPC). With reference to TPC, DsV ($R^2 = .165$) and DfV ($R^2 = .159$) were meaningfully explained by the contract type (TPC) and PCB and, in both cases, adding the interaction term improved the models (DfV with 2.7%, $\Delta R^2 = .027$ and DsV with 3.9%, ΔR^2 = .039). Reflecting on the regression coefficients, it was evident that the moderation that occurred was partial in both the DfV and DsV cases. When referring to RPC and PCB, and the interaction term (RPC X PCB) explained DfV ($R^2 = .133$) best. The DsV (R^2 = .113) models were marginally weaker, while the SV (R^2 = .053) and CV ($R^2 = .040$) had small predictive values. Considering the improvement of the models, after adding the values for interaction, the only significant improvement observed was for DfV ($\Delta R^2 = .027$), where the moderation was also partial. For the purpose of H3_{a7}, this result is not applicable, as the RPC-DfV relationship was nonsignificant. Summary: Within the TPC environment, PCB partially moderates the relationship between PC type and voice, and only in the case of DfV and DsV. Considering the RPC environment, none of the relationships was moderated by PCB.



The hypotheses outcomes are presented graphically in Figure 2, below.

*** < .001; ** < .01; * < .05

Figure 2. The results of the interplay between PCs and employee voice, with PCB moderating the relationship.

Discussion

This study aimed at answering the overall question "Which type of voice will be likely activated under conditions of psychological contract breach, given the dominant type of perceived psychological contract?". From a review of the literature, it became apparent that the results were, firstly, scarce, and, secondly, inconsistent. With regards to PCB, the available sources are relatively abundant. Rees et al. (2013), for example, concluded that employees reciprocate with voice behaviour more often when they experience positive relationships with their managers. Ng et al. (2014), on the other hand, report that when these contracts are compromised, employees are likely to withhold [constructive] voice, and even engage in counterproductive work behaviours. Some studies report negative correlations between PCB and voice (Guo, 2017; Ng et al., 2010), while others provide evidence of no direct effect of PCB on voice (Liu et al., 2020). Similar disparities were also found in analysing findings, which investigated links between PCB and specific types of voice. Turnley and Feldman (1999) report a positive relationship between PCB and aggressive voice, while Ng et al. (2014) report non-significant correlation between PCB and aggressive voice, but a statistically significant and negative relationship between PCB and CV.

Research on the relationships between PCs, PCB and EV constructs are particularly scarce. In a cross-cultural study, the researchers found that in the one culture, neither transactional nor relational PCBs correlated with CV, while in the other, the damaged relational PCs affected voice negatively (Balabanova et al., 2019). No research that specifically addressed direct relationships between PC types and EV was found. The paucity of research on the effects of PCs on voice, as well as disparate findings on the effects of PCBs on voice, further made this research necessary.

The present study followed a cross-sectional design methodology, which is well-suited to reaching objectives of this nature. The measurement instruments used are well established in the present field, and the psychometric properties of these instruments were tested here and found to be acceptable. Though the descriptive statistics of the research variables revealed many deviations from normality, thus potentially violating of some of the requirements for performing certain analyses, the universal reputation of the instruments, as well as the good psychometric performance of these measures in this study, convinced the researchers to continue with the analyses.

The participants of the study represented the sample population adequately in terms of their sex and race, aligned with the numbers currently reported by Stats SA (Statistics South Africa, 2020). Thus, it could be reasonable to generalise these results cautiously for similar South African organisations with workforces larger than 60 employees.

This research focused on three central objectives. Firstly, to report on how TPC and RPC relate to each of the four types of voice, being SV, CV, DfV and DsV. Secondly, on how PCB affects each of the four types of voice and, finally, to report on whether PCB moderates the relationship between PCs and each of the four types of employee voice.

From the correlation analyses, it was concluded that TPC negatively and significantly relates to promotive dimensions of voice (SV and CV), but positively and significantly to prohibitive dimensions of voice (DfV and DsV). In terms of RPC, it was evident that it relates positively and significantly to promotive voices (SV and CV) and negatively and significantly to prohibitive (DsV) voice (the RPC-DfV relationship was found statistically non-significant). These findings on RPC are aligned to previous research (see Rees et al. (2013) and Maynes and Podsakoff (2014)), which suggest that the quality employer-employee relationships leads to higher levels of promotive voices and lower levels of prohibitive voices. The present research contributes to the literature on TPC, in as much as their dominance relates negatively to promotive voices and positively to prohibitive voices.

The results of the study also revealed that PCB has a different effect on the different types of voice: SV (r = -.208, p < .001), CV (r = -.042, n/s), DfV (r = .260, p < .001), and DsV (r = .329, p < .001). When PCs break down, the data suggest that the support of management will decline (SV, negative), constructive feedback will be absent (CV, n/s), and that employees will become defensive (DfV, positive) and even destructive (DsV, positive). In general, these findings seem to be logical and support previous research. The absence of PCB having any effect on CV may be at odds with both CORT and PCT, but, though rare, some research suggests that when breaches occur, employees still try to "remedy" the situation. Kiazad, Seibert and Kraimer (2014), for

example, found a positive correlation between PCB and work-role innovation under conditions of higher levels of organisational embeddedness, specifically, the links and person-organisation fit.

The test for moderation of PCB on PCs-EV links was performed irrespective of size of the PCs-EV relationships. The results of the regression analyses indicated that PCB did not moderate any of the RPC-EV relations, however, PCB partially moderated the relationship between TPC and both, DfV and DsV, the two types of prohibitive voice. It may be argued that, where interpersonal relations exist with higher levels of RPC, and where non-monetizable issues are at play, PCB does not affect EV in a significant way. However, in the presence of strong transactional relations, where TPC levels are high, and where monetizable matters are of concern, PCB has a substantial effect on the prohibitive voices, and that this occurs to a large extent. Interesting to note was the nature of the moderation. The interaction effect was negative, which may suggest that when TPCs are breached, employees will be less willing to be expressive, for example, speaking against changing work policies and objectives (Maynes & Podsakoff, 2014), possibly, in an attempt to preserve the status quo and not to risk interpersonal relationships (Van Dyne & LePine, 1998).

These results could be explained with the help of CORT theory, which suggests that, in environments typified by high levels of stress (such as when PCBs occur), the exercising of discretionary behaviours (such as EV) will decrease (Hobfoll, 1989), and employees will likely choose to withhold their extra-role behaviours or resort to silence (Morrison, 2014). In line with the well-known cognitive dissonance theory (Festinger, 1957), change also requires adjustment and, in this case, where breach occurs, these changes seem negative, evoking primarily prohibitive voices.

Conclusion

This study makes a significant contribution towards understanding relationships between PC, PCB and different types of EV, particularly adding complexity to the debate around these variables. The links between transactional and relational PCs, PCB and four types of voice, being SV, CV, DfV and DsV, have now been studied within one conceptual model. This is a novel and important contribution. Also, while most studies focus on voice as a unidimensional construct, this research used a multidimensional voice construct, operationalised with the use of Maynes and Podsakoff's (2014) voice organising framework.

This research provides new insights into how RPC enhances promotive voice and how TPC associates with prohibitive voice. TPCs and PCBs act very similarly as predictors of EV. In the past, these kinds of findings were related only to PCB and, as such, this research is novel and adds complexity to the debate. Furthermore, this complexity is further augmented through the application of moderation.

The current study is well aligned with previous research, as well as with established theories in the field. The CORT theory, which could be used to explain most of the results, seems most appropriate here.

Practical and managerial applications of this study are manifold. Managers invest a significant amount of effort in maintaining effective PCs with their subordinates, assuming that PCBs may lead to negative work outcomes, such as, for example, employees withholding their voice. Following the results of this study, managers should focus on maintaining RPCs, as these correlate to promotive voice. They should also divert employees from focusing on transactional matters, as these may solicit prohibitive voice. Managers are encouraged to engage with their employees on a personal level and not place primary emphasis on explicit contracts. PCBs should be avoided as, aligned with previous extensive research, this study suggests that the effects of PCBs are negative. This is particularly true where TPCs are dominant and where, under such conditions, prohibitive voice is enhanced.

This research has shed further light on the PC-EV relationship, but many questions remain unanswered. Researchers are encouraged to replicate this study, using the same and, possibly, alternative instruments for measuring constructs, as the skewed distribution of the variables in this study remains unexplained. As the scope of this research was mainly to understand the antecedents to EV, future research could focus on the importance of EV to predict other organisational variables related to both discretionary and in-role behaviour. Researchers are encouraged to explore the role of other antecedents to EV, as well as other mechanisms that could positively influence promotive voice and discourage prohibitive voice.

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CHAPTER 7: EMPLOYEE VOICE AND INNOVATIVE WORK BEHAVIOUR: EMPIRICAL EVIDENCE FROM SOUTH AFRICA

Botha, L., & Steyn, R. (No date). Employee voice and innovative work behaviour: Empirical evidence from South Africa. *Cogent Psychology* [In press]

Article 6: Employee voice and innovative work behaviour: Empirical evidence from South Africa

Abstract

Background: Numerous empirical studies reveal that innovative work behaviour (IWB) has several antecedents, including leadership style (LS) and climate for innovation (CfI). However, literature reporting on how different types of employee voice (EV) influence IWB is scant.

Aim: This research aims to empirically determine how different dimensions of EV are linked to IWB, and also to determine the relative importance of EV, compared to other predictors of IWB.

Methods: In a cross-sectional survey, respondents were asked questions on EV and IWB, as well as on CfI and the leadership styles. Correlation and regression analyses were used to test the bivariate as well as relative prediction power of the EV as an antecedent of IWB.

Results: The demographics of the 620 respondents from 11 organisations resonated well with national workplace statistics. All measures showed acceptable psychometric properties. Supportive voice and, particularly, constructive voice, positively correlated with IWB, while defensive and destructive voice had no effect on IWB. The model in which EV was used to predict IWB was superior to models that included leadership style as well as Cfl.

Discussion: This research provides empirical evidence that EV contributes positively to IWB, depending on the type of EV expressed, and that EV, more than other oftenmentioned antecedents, predicts IWB, emphasising the relative importance of EV as a predictor of IWB.

Recommendations: Managers should monitor the EV expressed in their environment, and support the expression of supportive voice and, particularly, constructive voice, should they aspire to foster IWB in their workplaces.

<u>Keywords:</u> Employee voice, supportive voice, constructive voice, defensive voice, destructive voice, climate for innovation, leadership style

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Introduction

Innovative work behaviour (IWB) relates to employees' "intentional creation, introduction and application of new ideas within a work role, group or organization, in order to benefit role performance, the group, or the organization" (Janssen, 2000, p. 288). While innovation is often associated with what research and development (R&D) departments typically do (Scott & Bruce, 1994), IWB refers to creative and innovative thinking on the part of ordinary employees outside the R&D domain (Janssen, 2000; Scott & Bruce, 1994). Nowadays, IWB is expected from general employees while delivering on their in-role commitments (Cohen & Erlich, 2015).

IWB is central to overall organisational success (Bos-Nehles et al., 2017), sustainability (Agarwal, 2014b; Sanz-Valle & Jiménez-Jiménez, 2018) and organisational performance (Noruzy et al., 2013; Yen, 2013). This centrality of IWB makes it an important activity, necessitating managerial focus on enabling employees' IWB.

The general literature on IWB is prolific with papers reporting on studies of various antecedents to IWB. Antecedents considered at the job-specific level include job demands and job security (Janssen, 2000; Niesen, Van Hootegem, Battistelli, De Witte, & Handaja, 2018). At the organisational level, antecedents to IWB include organisational processes (Ramamoorthy et al., 2005), the organisational climate, specifically the climate for innovation (Sethibe & Steyn, 2018; Shanker, Bhanugopan, van der Heijden, & Farrell, 2017) and psychological contracts (Bhatnagar, 2014; Ng et al., 2010). Some antecedents deal with leader behaviour, for example, leadership style (Sethibe & Steyn, 2018; Soomro, Memon, & Shah, 2021), relative leader-member exchange (Li et al., 2014), and perceived supervisor support (Bhatnagar, 2014). Lessoften mentioned as antecedent to IWB is employee voice (EV), a behaviour linked to innovation, and that has recently been gaining attention from researchers (Rasheed, Shahzad, & Nadeem, 2021; Selvaraj & Joseph, 2020).

The paucity of the literature and empirical studies addressing the EV-IWB link, as well as theoretical rationalisation of this relationship, necessitated further investigation. This research aims firstly to ascertain the importance of EV as an antecedent of IWB, and secondly, to explore this relationship within an expanded conceptual model where other, better-known predictors of IWB, such as climate for innovation (CfI), are also considered.

Employee voice

Several authors have made significant contributions towards conceptualising and measuring the EV construct. Originated by Hirschman (1970, p. 30) in the early 1970s, voice was initially described as a choice on the part of the customer to express dissatisfaction in a company's offering with the "intention to force a change in management". Customer voice has since developed into a broad field of interest (see Griffin & Hauser, 1993; Shillito, 2000). Similarly, the voice expressed by employees in organisations and defined as "discretionary communication of ideas, suggestions, concerns, or opinions about work-related issues with the intent to improve organizational or unit functioning" (Morrison, 2011, p. 375), developed into a pervasive organisational behavioural concept (Van Dyne et al., 2003) essential to innovation (Veenendaal, 2015). Over the past 25 years, EV has evolved from a concept related to an employee promotive behaviour (Van Dyne & LePine, 1998), to employees' means of communicating with management (Freeman & Medoff, 1984) and channelling their inputs into managerial decisions (Budd, 2004), to a concept associated with employee extra-role improvement-orientated behaviour (Morrison, 2011).

The literature provides extensive evidence that both unitary, as well as multidimensional operationalisation of voice are broadly adopted by researchers. As an alternative to the unitary approach to voice (Van Dyne & LePine, 1998), Liang, Farh and Farh (2012) distinguish between two contrasting types of voice, namely promotive and prohibitive voice. Along similar lines, pro-social, defensive and acquiescent voice (Van Dyne et al., 2003), and active/constructive and passive/constructive voice (Gorden, 1988), were introduced. A recently published EV organising framework by Maynes and Podsakoff (2014) differentiates between four types of voice: supportive, constructive, defensive and destructive, where the first two represent the promotive nature of voice, and the other two, the prohibitive. This study adopts Maynes and Podsakoff's (2014) four-way typology of voice, as well as the authors' instruments for measuring these types of voice.

Empirical studies reveal that EV is associated with a wide range of work-related outcomes, which are largely dependent on whether voice is being expressed or heard or whether it is ignored or unheard (Bashshur & Oc, 2015). On an individual level, when EV is perceived as being heard, employees' sense of value increases (Lind &

Tyler, 1988), employees report increase of their felt control over decisions or outcomes (Folger, 1977) as well as motivation and satisfaction at work (Greenberger & Strasser, 1986). However, when voice is perceived as unheard, this can have negative effects on individuals. By way of example, Pinder and Harlos (2001) provide evidence that, if ignored, EV leads to frustration for the voicer. In one specific study, it was revealed that employees who give voice could be perceived as troublemakers and can receive lower performance ratings from their direct managers (Seibert et al., 2001), which negatively affects their individual career progression. On the organisational level, EV can lead to positive outcomes, such as learning, decision making, adaptability and performance (Morrison & Milliken, 2000). While the evidence of the interest in studying the relationship between voice and innovation exists (see Chen & Hou, 2016 and Zhou & George, 2001), the empirical examinations of voice predicting IWB are sparse. The research can thus contribute to a nascent body of literature related to EV as an antecedent of IWB.

Innovative work behaviour (IWB)

Several seminal authors contributed conceptually and operationally towards the development of the IWB concept, including Scott and Bruce (1994), Janssen (2000), Kleysen and Street (2001), and De Jong and Den Hartog (2010). Definitions proposed by these researchers build on each other and are in many ways related. Furthermore, they share a focus on the multidimensional characteristics of IWB and the beneficial results of innovation. Comprehensively, IWB can be defined as "an individual's behaviour that aims to achieve the initiation and intentional introduction (within a work role, group or organization) of new and useful ideas, processes, products or procedures" (J. De Jong & Den Hartog, 2010, p. 24). Although in agreement as to the basic structure of IWB, the authors differ on the exact number of stages through which IWB evolves. For example, Janssen (2000) suggests that IWB consists of three distinct tasks, namely idea generation, idea promotion, and idea realisation. However, Kleysen and Street (2001) present five essential elements, suggesting the inclusion of opportunity exploration, generativity, information investigation, championing, and application. Although multi-stage structure is the core characteristic of IWB, the debate continues as to whether innovation should, for all intents and purposes, be regarded as a set of discontinued (Steyn & de Bruin, 2019) or integrated activities, given Scott and Bruce's (1994) argument that innovation stages are often performed by individuals simultaneously and not in a specific sequence.

The managerial expectations of general employees engaging in innovation are rooted in IWB being implied as employees' discretionary actions that "go beyond the prescribed" and that are not necessarily rewarded by the organisation's formal system (Janssen, 2000, p. 288). However, discretionary behaviours, such as IWB, need to be specifically activated and encouraged by management practices (Bos-Nehles et al., 2017; Sanz-Valle & Jiménez-Jiménez, 2018; Veenendaal, 2015). The literature provides extensive evidence of studies exploring various predictors that influence employees to participate in innovation. Some antecedents to IWB relate to leader behaviours, including ethical (Zahra, Ahmad, & Waheed, 2017), transformational leadership (Abbas et al., 2012), and leader-member exchange (Schuh, Zhang, Morgeson, Tian, & van Dick, 2018). Other antecedents pertain to culture and relational climate, incorporating constructs such as psychological safety (Binyamin, Friedman, & Carmeli, 2018), psychological contracts (Chang et al., 2013), and psychological contract breaches (Kiazad et al., 2014). With the exception of five studies (see Chen & Hou, 2016; Chen, Li, Wu, & Chen, 2020; Guzman & Espejo, 2019; Rasheed et al., 2021; Selvaraj & Joseph, 2020), the research on direct links between EV and innovation is scant. Although these investigations focused on the link between EV and IWB, in four models, IWB was operationalised as the IWB proxies, namely, 'creativity' (Chen et al., 2020), 'environment for innovation' (Selvaraj & Joseph, 2020), 'organisational innovation' (Rasheed, Shahzad, Conroy, Nadeem, & Siddique, 2017), and 'management innovation' (Guzman & Espejo, 2019).

This paper contributes towards a better understanding of the interplay between EV and IWB. It also adds complexity to the debate on these variables, as EV is studied as a multidimensional construct, comprised of four distinct types of voice, namely supportive, constructive, defensive, and destructive.

Empirical evidence linking EV and IWB

As stated above, research on the prevalence of antecedents to IWB is plentiful. Some studies provide evidence of a positive relationship between EV and desirable organisational outcomes, including creativity and innovation (Zhou & George, 2001).

Although these specific outcomes are often operationalised as proxies to IWB, they only sparsely address the complexity of the multidimensional nature of IWB.

An extensive search of recent articles (published in the past five years), where EV (operationalised as a single construct or any form of multidimensional construct) was studied as a predictor of IWB, did not return successful results. However, the analysis of empirical literature where the dependent variable, being IWB, was substituted with its proxies, provided consistent findings, as anticipated. For example, Chen et al. (2020) found a positive and significant relationship between voice and creativity. In the same model, when voice behaviour was added as a moderator between ethical leadership and creativity, authors reported that employees were comfortable to voice their concerns in environments where ethical leadership was high, which led to enhanced creativity. In another study by Selvaraj and Joseph (2020), a positive and significant correlation was found between EV and environment for innovation. Interestingly, the authors used deliberative democracy theory (Fung, 2005) to explain that this correlation was stronger when mediated by employees' positive relationships with their direct supervisors and, even more, when there was a high level of trust in senior management. In their study, Guzman and Espejo (2019) selected promotive voice as a predictor of management innovation. Consistent with previous findings, the authors report a positive and significant correlation between the two variables. Applying conservation of resources theory (CORT) to explain the outcomes of the hypotheses, the authors argue that the link between promotive voice and management innovation is stronger when employees feel that the willingness to discuss ideas within the unit is high. It is clear that the mediation of the willingness to discuss ideas played a salient role in employees' endeavours to invest their own resources (e.g., effort, time, energy) in order to secure more resources in the future. Lastly, the study of Chen, Li, Wu and Chen (2020), who examined the link between voice and innovative behaviours moderated by perceived organisational status, is notable. Using CORT as the explanatory theoretical lens, the authors reported a positive and significant relationship between variables. Interestingly, innovative behaviour was studied as the direct outcome for the voicer. The authors concluded that, based on CORT, the voicer will acquire personal-based resources such as support, status, and respect and that, to attain additional resources while retaining the existing resources, the voicer is further motivated to implement his/her innovative ideas and suggestions for organisational improvements.

Although the empirical literature linking EV and the proxies for IWB, namely creativity and innovation, is limited, evidence was also found of these proxies also being presented as part of an employee performance variable. For example, Van Dyne and LePine (1998) investigated the impact of employees' helping and voice behaviours on innovation as a sub-construct of a performance dimension. The authors found that employees' helping and voice behaviours were strong predictors of performance. A similar study by Ng and Feldman (2012), measuring the effects of employees' voice on job- and role-related performance (again, with creativity and innovation being aspects of job performance construct), also reported a positive relationship between the two variables.

Research framework and hypotheses

The research framework appears in Figure 1. It suggests a set of relationships between predictors, namely four types of EV, four leadership styles, CfI, and IWB as a dependent variable.

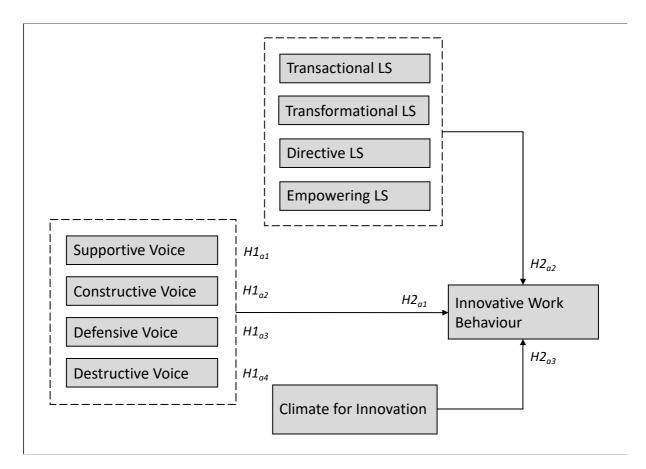


Figure 1. The research framework representing the relationship between EV, leadership style, and Cfl as predictors for IWB.

The research framework is centred in the conservation of resources theory (CORT) (Hobfoll, 1989). CORT explains the rationale behind the desire of employees to strive for protection and accumulation of their resources. Hobfoll (1989, p. 516) describes resources as "objects, personal characteristics, conditions, or energies that are valued by the individual" and include time, money, health and relationships. When individuals perceive the loss of, or possibility of losing, these resources, they may choose to withdraw in an effort to conserve or prevent further losses of valuable resources. Based on the CORT's "resource conservation" assumption, in stressful environments, employees will be unlikely to engage in voice behaviour in order to preserve their time and energy for use in coping with existing work challenges, rather than coming forward with change-orientated innovative ideas, which could potentially generate even more stress (Burris et al., 2008). On the other hand, when employees identify opportunities and come forward with suggestions and constructive ideas for changes towards organisational improvements (characterised as IWB), they will likely invest their own resources, such as effort, energy, time and so on, to gain additional resources and support from their managers and organisation. Based on a [competing] assumption of CORT, the "resource acquisition" tenet, proactive behaviour, such as voice, can be seen as instrumental in acquiring additional resources, as these are channelled to management to alleviate problems and stress. Thus, employees are particularly motivated to engage in voice behaviours to identify and implement salient innovative ideas (Tangirala & Ramanujam, 2008). Following the resource conservation tenet, it could be assumed that in stressful environments, for example, in hostile organisational climates, employees will either withhold their voices and resort to silence, or will engage in prohibitive [defensive and destructive] types of voice to cope with stress. Similarly, following the resource acquisition tenet, in environments typified by psychological safety and positive relational climates, when employees recognise opportunities for improvement of systems, policies and procedures, they will feel particularly motivated to use promotive [supportive and constructive] types of voice to identify and remove organisational deficiencies, an activity referred to as IWB. The aforementioned theoretical rationale proposes the following hypotheses:

H1₀: Employee voice (EV) does not have a direct impact on innovative work behaviour (IWB)

H1_{a1}: Supportive voice (SV) has a direct impact on IWB

H1_{a2}: Constructive voice (CV) has a direct impact on IWB

H1_{a3}: Defensive voice (DfV) has a direct impact on IWB

H1_{a4}: Destructive voice (DsV) has a direct impact on IWB

H2₀: All antecedents to IWB (EV, leadership styles, and climate for innovation (CfI)) equally impact IWB

 $H2_{a1-3}$: Some antecedents to IWB (EV, leadership styles, and climate for innovation (CfI)) are better predictors of IWB than others.

The matter of leadership style and CfI was presented in H2, as these are, as stated in the Introduction, frequently mentioned and seemingly significant predictors of IWB. The rationale for their inclusion is to assess the relative strength or importance of EV as a predictor of IWB.

The method for testing the aforementioned hypotheses will be described below.

Method

This study was designed as a cross-sectional survey, which is appropriate for data collection and proposed hypotheses testing.

Population and sampling

The population was comprised of all employees across all organisations. Access to organisations was gained through students engaged in the Master of Business Leadership programme at the Graduate School of Business Leadership at the University of South Africa and enrolled for their research module there. Students were asked to assist with collection of data from 60 employees in each organisation. Only larger organisations were approached, on the assumption that employees of bigger enterprises would be exposed to formalised organisational dynamics. The students approached the human resources departments in each organisation and were assisted with the drawing of random samples of participating employees.

Measures

Self-report surveys were used to measure EV, CfI, leadership style, as well as IWB. Self-reported measures are widely utilised as employees, more than supervisors, are

aware of operational nuances and whether these have instrumental value for their own functioning in the group or the organisation (Ng et al., 2014).

EV: EV was measured with Maynes and Podsakoff's (2014) 20-item voice scale, with five items related to each sub-scale, namely, supportive voice (SV), constructive voice (CV), defensive voice (DfV), and destructive voice (DsV). Sample items are "I defend useful organisational policies when other employees unfairly criticise the policies" (SV), "I frequently make suggestions about how to do things in new or more effective ways at work" (CV), "I vocally argue against changing work practices, even when making the changes is necessary" (DfV), and "I frequently make overly critical comments regarding how things are done in the organisation" (DsV). The authors reported Cronbach's alphas for SV of .89; for CV of .95; for DfV of .92, and for DsV of .93.

Leadership styles: Four different leadership styles were measured, namely transactional (TsL), transformational (TfL), directive (DL) and empowering leadership (EL).

The instrument developed by Pearce, Sims, Cox, Jonathan, Ball, Schnell, Smith, and Trevino (2003) was utilised to measure TsL and TfL. Five of the original 16 items were used for TsL and six of the original 20 items were used to measure TfL. A sample transactional item reads: "My leader closely monitors my performance for errors", while a sample transformational item reads: "My leader questions the traditional way of doing things". The reliability and validity of this instrument are confirmed by Pearce et al. (2003).

DL was measured using 10 items, of which six were developed by Pearce et al. (2003) and four by Hwang, Quast, Center, Chung, Hahn and Wohkittel (2015). Sample items reading "My leader gives me instructions about how to do my work" and "My leader identifies specific action steps and accountabilities for me" are examples of the statements intended to measure DL. The items developed by Pearce et al. (2003) are confirmed as reliable (Hinrichs, 2011), while Hwang et al. (2015) confirm the reliability of their developed items for DL.

EL was measured using the 10-item instrument of Ahearne, Mathieu and Rapp (2005). Sample items read: "My leader allows me to do my job my way" and "My leader allows

me to make important decisions quickly to satisfy customer needs". The reliability of this survey is confirmed by Yoon (2012).

Cfl: Cfl was measured on a five-dimension scale with 20 items of the Brief Corporate Entrepreneurship Assessment Instrument (BCEAI) developed by Strydom (2013), based on the work of Hornsby, Kuratko and Zahra (2002). The five dimensions assessed were management support, discretion or autonomy, rewards and reinforcement, time availability and organisational boundaries. Sample items read: "Individual risk takers are often recognised for their willingness to champion new projects, whether eventually successful or not" and "It is basically my own responsibility to decide how my job gets done". The overall Cronbach's alpha for the five dimensions was .81 (Strydom, 2013).

IWB: IWB was assessed using a 14-item instrument developed by Kleysen and Street (2001). It measures individual innovation through five sub-constructs, particularly, opportunity exploration, generativity, information investigation, championing and application. All the questions start with the same prefix, namely, "In your current job, how often do you...", which is then followed by statements such as "...look for opportunities to improve existing process, technology, product, service or work relationship?" and "... experiment with new ideas and solutions?". Hebenstreit (2003) reported the IWB total score with an alpha of .95.

Statistical analyses

Firstly, the descriptive statistics of the respondents were calculated and subjectively interpreted in order to draw a conclusion as to how well they mirror the South African working population. The analyses revealed that respondents represented the South African working population well (see Statistics South Africa, 2020).

Then, the collected data was tested for normality in terms of skewness and kurtosis, as the analyses that followed should ideally be performed when the distributions are normal. The SPSS (IBM-2021) skewness and kurtosis scores were interpreted following the guidelines of Field (2009). If the observed SPSS value divided by the standard error of that value is larger than 1.96, or smaller than -1.96, the data was interpreted as showing a serious deviation from normality.

The reliability was assessed next, focusing on the Cronbach's alpha coefficient. In line with recommendations by Tavakol and Dennick (2011) as well as Pallant (2013), alpha coefficients were accepted when values exceeded .70.

Pearson product-moment correlations (r) were first calculated to measure direct relationships between EV and IWB, as well as the other "competing" antecedents to IWB. Following Cohen's (1988) guidelines, statistically significant correlations with a value of less than .10 were deemed insignificantly small, up to .29 as small, from .30 to .49 as medium, and higher than .50 as large.

Regression analyses were performed next. Four models were tested. In Model 1, demographic [control] variables were used as predictors of IWB to set a baseline for further analyses. Next, the four types of EV were introduced in Model 2. This was followed by Models 3 and 4, where four different leadership styles (in Model 3) and then Cfl (in Model 4) were added to gain information on the relative importance of the variable under scrutiny, namely EV, in predicting IWB. The change in the squared regression coefficient (ΔR^2) was interpreted as the percentage variance explained when "improving" the model. Furthermore, as both EV and leadership style were measured as multidimensional variables, the regression coefficient was of interest, particularly the significance of the beta values of different predictors. Significant predictors (p < .01) were deemed as unique and substantial contributors to the variance in the dependent variable.

Results

Demographic variables

Data was collected from 620 respondents. The respondents were diverse, with 50.5% men and 48.5% women, and 6 missing cases. The dominant race was Blacks (71%), followed by Whites (16.6%), Coloureds (6.8%), and people of Asian descent (4.5%).

Most respondents indicated that they had obtained a higher degree or diploma (41%), a smaller group stated they had obtained a first degree or diploma (32.7%), while an even smaller percentage indicated that they had completed 12 years of schooling (22.3%). Only a small proportion (3.1%) had completed less than 12 years of education.

The average age was 37.8 years (standard deviation of 8.841), with ages varying between 21 and 64 years. The average tenure was 6.59 years (standard deviation of 5.848), which ranged between 1 and 42 years.

The sample represented employees from both, private and public entities. 48.2% indicated that they were involved in the core operations of their respective organisations, while 50.2% stated that they fulfilled supportive roles. As far as post level, the group was also diverse. The self-declared post levels were as follows: unskilled (3.5%), semi-skilled (21.6%), junior management (33.9%), middle management (31.8) and senior management (7.3%).

It was concluded that the respondents represented the South African working population well (see Statistics South Africa, 2020), were adequately literate to respond to the survey questions and had a reasonable range of experience that would allow them to respond adequately to questionnaires and to comment on organisational dimensions and practices.

Descriptive statistics for variables

The descriptive statistics for all variables used in this study will be presented and discussed.

Table 1

Construct	Mean	Std. Dev.	Skewness*		Kurtosis [#]	
			Value	Z	Value	Z
IWB	2.608	0.942	0.289	2.944	-0.406	-2.071
SV	2.203	1.134	1.178	12.007	1.493	7.620
CV	2.043	1.140	1.506	15.342	2.616	13.350
DfV	5.880	1.368	-1.336	-13.610	1.207	6.159
DsV	6.149	1.250	-1.868	-19.031	3.291	16.794
TsL	2.592	1.689	1.229	12.525	0.654	3.338
TfL	2.640	1.608	1.056	10.764	0.271	1.384
DL	2.470	0.860	0.480	4.895	0.031	0.157
EL	2.693	1.401	1.081	11.011	0.845	4.311
Cfl	2.577	0.496	-0.219	-2.228	1.526	7.787

Descriptive statistics for IWB, EV, leadership styles, and CfI (N = 620)

*Standard Error for skewness = .098. #Standard Error for kurtosis = .196.

Note: The sub-dimensions of employee voice (EV) are presented in this table as follows: SV: supportive voice; CV: constructive voice; DfV: defensive voice; DsV: destructive voice. Four leadership styles are; TsL: transactional; TfL: transformational; DL: directive, and EL: empowering. Cfl is the abbreviation for climate for Innovation.

From Table 1, it can be observed that a number of variables were negatively skewed, with high kurtosis, which suggests that a large number of respondents opted for the socially acceptable responses. However, no adjustments towards normality were performed, as it was assumed that these distributions represented the respondents' perceptions.

Reliability and validity

Reliability was addressed through the calculation of Cronbach's alpha coefficients and validity through the factor analysis. These results are presented in Table 2, below. Aligned with the guidelines of Pallant (2013), the reliability scores ranged from satisfactory (.754 for Cfl) to desirable (all others are above .80), therefore, all measures are reported reliable.

The structural validity of the instruments used in this study was tested and the outcomes were satisfactory. The results are not presented here due to their comprehensiveness but are available from the first author on request.

Relationships between the variables

In this section, the correlations between IWB and its antecedents are presented, followed by hierarchical linear regression analyses, which indicate the relative importance of the various groups of variables. These results will address both hypotheses.

Correlation analyses

The Pearson correlation coefficient was used to measure the relationship between seven variables. Table 2 presents the coefficients, together with statistical, as well as practical significance levels.

Table 2

Correlations between IWB, and antecedents to IWB, namely EV, leadership styles, and CfI, as well as reliability coefficients (N=620)

	Correlation with IWB	p-value	Practical significance	Cronbach alpha
SV	.331	<.001	Medium	.878
CV	.577	<.001	Large	.931
DfV	079	.050	Insignificantly small	.904
DsV	072	.073	Insignificantly small	.897
TsL	.211	<.001	Small	.957
TfL	.184	<.001	Small	.924
DL	.122	.002	Small	.889
EL	.296	<.001	Small/Medium	.992
Cfl	.305	<.001	Medium	.754

Note: The sub-dimensions of employee voice (EV) are presented in this table as follows: SV: supportive voice; CV: constructive voice; DfV: defensive voice; DsV: destructive voice. Four leadership styles are; TsL: transactional; TfL: transformational; DL: directive, and EL: empowering. CfI is the abbreviation for climate for Innovation.

CV had a large correlation with IWB. SV had the second-largest correlation, which was of medium size. Both of these are from the EV cluster and represent the promotive dimension of EV. DfV and DsV had insignificantly small correlations with IWB. These two types of voice represent prohibitive dimensions of EV. From the leadership style cluster, only EL had a practically significant correlation with IWB, which hovered around the .300, the cut-off value for medium effect. The CfI-IWB correlation coefficient had a medium size, and CfI was the third strongest predictor of IWB.

Regression analyses: The effect and relative effects of EV on IWB

Regression analyses were used to assess the relative importance of EV in predicting IWB. Three models were tested: Model 1, which included control variables only; Model 2, which introduced EV; Model 3, where leadership styles were added; and Model 4, which included Cfl. Models 3 and 4 were tested in order to assess the relative importance of EV, given the inclusion of other antecedents of IWB, namely, leadership styles and Cfl.

Table 3

Regression model fit: IWB being predicted by control variables, EV, leadership styles and Cfl (N=620)

Model	R	R ²	ΔR ²	Adjusted R ²	Std. Error of the Estimate
1	.223	.050	-	.042	.914
2	.592	.351	.301	.341	.758
3	.612	.375	.024	.361	.747
4	.622	.387	.012	.372	.740

Model 1: Predictors: (Constant), Sex, Role in organisation, Race, Schooling, Post level Model 2: Predictors: (Constant), Sex, Role in organisation, Race, Schooling, Post level, and the subdimensions of EV (SV, CV, DfV, DsV)

Model 3: Predictors: (Constant), Sex, Role in organisation, Race, Schooling, Post level, the subdimensions of EV (SV, CV, DfV, DsV), and leadership styles (TsL, TfL, DL, EL)

Model 4: Predictors: (Constant), Sex, Role in organisation, Race, Schooling, Post level, the subdimensions of EV (SV, CV, DfV, DsV), leadership styles (TsL, TfL, DL, EL), and Cfl

From Table 3, it can be noted that the 5.0% of the variance in IWB is explained by the control variables. When adding EV, the variance changed from 5.0% to 35.1%, an increase of 30.1%. The addition of leadership style improved the declared variance by 2.4% and, when adding CfI, the declared variance increased by an additional 1.2%. The inclusive model declared 38.7% of the variance in IWB.

Next, the analysis of variance (ANOVA test) on the model fit was performed. All four models showed good fit. For Model 1: F(5, 591) = 6.196, Model 2: F(9, 587) = 35.245, for Model 3: F(13, 583) = 26.835, and for Model 4: F(14, 582) = 26.195, all with significant levels of p < .001. The best-fitting model, considering Occam's razor, was Model 2 (F(9, 587) = 35.245), where EV, apart from the control variables, was the only predictor of IWB.

Table 4

Standardised regression coefficients: IWB predicted by control variables, EV, leadership styles and CfI (N=620)

	Model 1	Model 2	Model 3	Model 4
Sex	.123**	.038*	.029	.023
Role in organisation	.014	.025*	.013	.008
Schooling	.096*	.068	.044	.029
Race	.111**	.093	.093**	.091**
Post level	178**	082*	061	058
SV	-	.113**	.099**	.090*
CV	-	.505**	.486***	.474***
DfV	-	045	057	073
DsV	-	.031	.053	.059
TsL	-	-	010	012
TfL	-	-	030	049
DL	-	-	.030	.023
EL	-	-	.167**	.136**
Cfl	-	-	-	.128**

*** < .001; ** < .01; * < .05

Model 1: Predictors: Demographic variables (control variables)

Model 2: Predictors: Demographic variables, and sub-dimensions of EV

Model 3: Predictors: Demographic variables, sub-dimensions of EV and leadership styles

Model 4: Predictors: Demographic variables, sub-dimensions of EV, leadership styles and CfI

From Table 4, it can be observed which variables, within the specific models, contributed uniquely and significantly to the variance in IWB. The results from Model 1 show that the Post level control variable contributed the most, followed by Sex, Race and Schooling. The Role in the organisation (core versus support) did not uniquely and significantly add to the variance in IWB.

Model 2 focused on the matter primarily investigated in this study. Out of four types of voice, only promotive voices, CV and SV, contributed to the variance in IWB, of which CV showed the highest effect. The other two – prohibitive – voices, DfV and DsV, had no effect on IWB, as the beta-values for DfV- and DsV-IWB links were found to be statistically insignificant.

When leadership styles were added in Model 3, the only variable significantly contributing to the variance in IWB was empowering leadership. Other leadership styles had no effect on IWB.

Finally, with the inclusion of Cfl in Model 4, the Cfl's contribution to variance in IWB was statistically significant and positive.

Based on Table 4, and specifically the results of Model 4, it is evident that the strongest predictor of IWB was CV, followed by EL, and then by Cfl. This suggests that, in the environments where climate for innovation is high, and where managers apply empowering leadership style, employees will likely engage in constructive voice to offer creative ideas and suggestions for organisational improvements.

Hypotheses outcomes

Given the correlation matrix (Table 2), the first hypothesis can be addressed. The general null hypothesis, reading $H1_0$: Employee voice (EV) does not have a direct impact on innovative work behaviour (IWB), was partially rejected. SV correlated significantly and positively with IWB (r = .331, p < .001, 11.0% of the variance), CV (r = .577, p < .001, 33.3% of the variance), the other two dimensions of voice, namely, DfV and DsV, had no direct impact on IWB. Summary: Considering practical significance, it could be concluded that only SV and CV positively impact IWB, with CV being the strongest predictor between the two with a large-sized direct effect on IWB.

The second hypothesis could also be addressed by considering the correlation coefficients presented in Table 2. The general null hypothesis reads as follows: $H2_0$: *All antecedents to IWB (EV, leadership styles, and climate for innovation (CfI)) equally impact IWB.* The second hypothesis could not be rejected in full. TsL (r = .211, p < .001, 4.5% of the variance), TfL (r = .184, p < .001, 3.4% of the variance), EL (r = .296, p < .011, 8.8% of the variance), and CfI (r = .305, p < .001, 9.3% of the variance) positively and significantly correlated with IWB, though this was not the case with DfV (r = -.079, p = .050), DsV (r = -.072, p = .073) and DL (r = .122, p = .002). Summary: Considering correlations, it can be stated that all predictors, with the exception of DfV, DsV, and DL, positively and significantly relate to IWB. In terms of practical significance, the size of effect of CV on IWB was large, the size of effect of SV, EL, and CfI on IWB was medium, and the effect of other variables (TsL and TfL) was small, though positive. This suggests that these variables, with exception of DfV, DsV, and DL, and IWB are positively related.

Finally, the H2_{a1-3} reading: Some antecedents to IWB (EV, leadership styles, and climate for innovation (CfI)) are better predictors of IWB than others, can be accepted. The findings presented in Table 4, specifically in column "Model 4", suggest that CV was found to be the strongest predictor of IWB (β = .474, p < .001), followed by EL (β = .136, p < .01), and then by CfI (β = .128, p < 01).

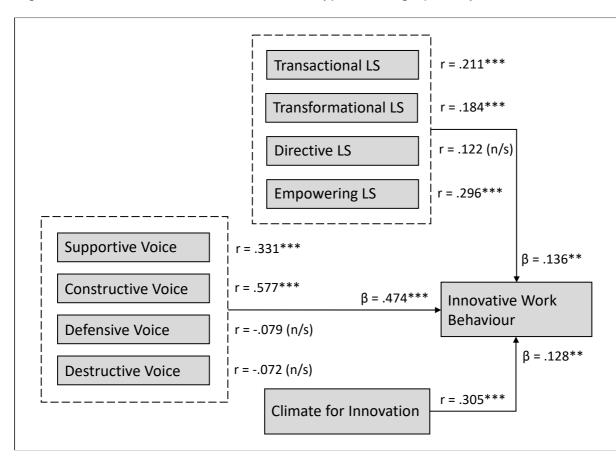


Figure 2 below illustrates the outcomes of hypotheses graphically.

*** < .001; ** < .01; * < .05

Figure 2. The results of the interplay between EV, leadership style, and CfI as predictors of IWB.

Discussion

The goal of the study was two-fold, firstly, to empirically test how different types of EV are linked to IWB, and secondly, to determine the relative importance of EV as the predictor of IWB compared to other predictors, namely, transactional, transformational, directive, and empowering leadership style, and Cfl.

From the literature review and, particularly, previous empirical research on the EV-IWB relationship, it was evident that the link between the EV and IWB is positive. A number of studies consistently reported on the significant and positive relationship between the two variables (Chen & Hou, 2016; Chen et al., 2020; Guzman & Espejo, 2019; Selvaraj & Joseph, 2020). However, in these studies, IWB was operationalised by means of its proxies rather than by the IWB construct itself, making this research a necessity.

With regard to antecedents of IWB other than voice, the research findings consulted and reported on in the literature review indicate strong evidence of the positive effects of ethical (Zahra et al., 2017) and transformational leadership styles (Abbas et al., 2012), as well as culture and relational climate, such as psychological safety (Binyamin et al., 2018), and psychological contracts (Chang et al., 2013). The findings in these studies are consistent in reporting the positive relationships between the abovementioned variables and innovation. Given the second objective of this study and its goal to ascertain the relative importance of EV as antecedent to IWB, compared to other predictors, namely, leadership style and climate for innovation, this study is unique as such a comparison has not been performed previously.

The present study followed a cross-sectional design methodology, which is well-suited to reaching objectives of this nature. The instruments selected to measure constructs are well established in the research field. The psychometric properties of all instruments tested in this study were found satisfactory. Though the descriptive statistics of the research variables revealed some deviations from normality, thus potentially violating the requirements for performing certain analyses, the universal usage of the instruments, as well as the good psychometric performance of these measures in this study, justified proceeding with the data analyses.

In terms of the sample characteristics, the participants of the study represented the sample population adequately in terms of their sex and race, aligned with the numbers currently reported by StatsSA (Statistics South Africa, 2020). It is, therefore, reasonable to generalise these results to the broader South African context.

From the correlation analyses, it was concluded that two promotive types of voice; SV and CV, significantly and positively related to IWB. Of the two, CV was the strongest predictor of IWB with the large effect size (r = .577, p < .001). These findings are aligned with previous research (see Chen & Hou, 2016; Chen et al., 2020; Guzman & Espejo, 2019; Selvaraj & Joseph, 2020), which suggests that, in environments where EV is encouraged and heard, the higher levels of voice lead to higher levels of

innovation. In terms of the other two [prohibitive] types of voice; DfV and DsV, their correlations with IWB, although evidently negative, were found statistically insignificant. The findings of DfV and DsV having had no measurable effect on IWB were surprising. This could suggest that, in environments, characterised by negative cultural and relational climates, employees will be unlikely to speak up and will rather choose silence over voice as their coping mechanism.

The results of the study also revealed that, amongst three sets of predictors, being EV, leadership style and CfI, when these were compared, the strongest predictor of IWB was EV (β = .474, p < .001). The next strongest predictor after EV was the leadership style (β = .136, p < .01) and then CfI (β = .128, p < .01). Although, the findings provide evidence of the relative importance of voice in predicting innovation, specifically, IWB, the need to ascertain under what conditions this relationship will exist warrants further investigations.

The present study utilised CORT theory (Hobfoll, 1989) to construct the hypotheses. CORT provided good support in explaining the findings that, in stressful environments typified by low levels of EV, the level of IWB will also be low. Furthermore, exercising discretionary behaviours (such as EV) would decrease (Hobfoll, 1989) and employees would likely choose to withhold their extra-role behaviours and rather choose silence (Morrison, 2014). Similarly, in environments with positive culture and climates, and where IWB is considered important, it is likely that employees will choose to speak up to offer their innovative ideas in pursuit of securing more valuable resources as well as affecting organisational improvements.

Conclusion

This study makes a significant contribution towards understanding the relationship between EV and IWB, particularly adding complexity to the debate around these variables. While most studies focus on voice as a unidimensional construct, this research used a multidimensional voice construct, operationalised with the use of Maynes and Podsakoff's (2014) four-way EV typology. This research is novel and enables a further inquiry into EV-IWB relationship.

This research also provides new insights into the relative importance of EV in predicting IWB, compared with alternative predictors, such as leadership style and Cfl. It was evident that EV is the strongest predictor of IWB in comparison to the other two.

Given the complexity of the model, which included multidimensional EV comprised of SV, CV, DfV and DsV, as well as four leadership styles, namely, transactional, transformational, directive and empowering, specific subconstructs were stronger in predicting IWB than others. In order of importance, CV was found to be the strongest predictor, then, empowering leadership style, and, finally, Cfl.

The current study is well aligned with previous research as well as with established theories in the field. The CORT theory seemed most appropriate and was used to explain most of the results.

The conceptual model developed in this research has a number of important implications for organisations. Since employee voice behaviour is an essential step in linking suggestions and ideas for improvements with practical implementation of innovation within organisations, managers and practitioners must find ways to create and then sustain organisational cultures and climates, which encourage promotive voice. The findings of this study suggest that one of the primary goals of organisations that strive to foster competitiveness through their employees' innovative work behaviour, is to create a work environment that is conducive to innovation. Managers who encourage employees' IWB are now aware that employees' voices – specifically when they are supportive, and even more so, constructive – need to be heard, and one of the ways in which this can be addressed is through application of empowering leadership style. Empowering leaders positively influence followers, specifically in terms of creating psychologically safe work environments and deriving innovative ideas and suggestions (Jada & Mukhopadhyay, 2018).

Although this study sheds light on the EV-IWB relationship, many questions remain unanswered. As the scope of this research was mainly to understand the relationship between EV and IWB, and to determine the relative importance of EV in predicting IWB compared to other antecedents to innovation, future research could focus on other organisational variables affecting innovation. Researchers are also encouraged to explore possible antecedents to EV, as well as mechanisms that could positively influence promotive and, specifically, constructive EV because, as was empirically tested in this study, constructive voice was the strongest predictor of IWB.

CHAPTER 8: EMPLOYEE VOICE AS A BEHAVIOURAL RESPONSE TO PSYCHOLOGICAL CONTRACT BREACH: MODERATING EFFECT OF LEADERSHIP STYLE

Botha, L., & Steyn, R. (No date). Employee voice as a behavioural response to psychological contract breach: Moderating effect of leadership style. [Under review]

Article 7: Employee voice as a behavioural response to psychological contract breach: Moderating effect of leadership style

Abstract

Background: Empirical evidence shows that psychological contract breach (PCB) leads to negative employees' work behaviours, including their withholding of discretionary activities such as employee voice (EV).

Aim: This research aims to determine empirically how PCBs are linked to different types of EV, and also how different leadership styles affect these relationships. The paucity of literature on the relationship between all three variables necessitated this research.

Setting: The study targeted medium-to-large South African organisations with more than 60 employees. The population sample was representative of a broad range of South African employees.

Methods: This research adopted a cross-sectional survey design, in which respondents were asked to answer a questionnaire on PCB, leadership styles and EV. Correlation analyses were used to test the direct links between variables and regression analyses to test for the moderation effect of leadership styles on the PCB-EV link.

Results: Data were collected from 620 respondents from 11 organisations. All instruments showed acceptable psychometric properties. Three findings were dominant. PCB correlated negatively with promotive types of EV, and positively with prohibitive types of EV. Leadership styles were a weaker predictor of EV than PCB. The PCB-EV relationship was, in most cases, partially moderated by leadership styles.

Conclusion: PCB and leadership styles influence EV, however, leadership styles only partially influence the PCB-EV relationship. Applying a specific leadership style to influence EV under conditions of PCB is partially effective.

Recommendations: Managers should circumvent PCB and focus on fulfilment of PC, as this would elicit promotive EV and lessen prohibitive EV.

<u>Keywords:</u> Psychological contract breach, constructive voice, supportive voice, defensive voice, destructive voice, leadership styles, moderation

Introduction

Employee voice (EV) behaviour has been widely studied as an antecedent to many important organisational outcomes, such as employee engagement (Rees et al., 2013), organisational commitment (Farndale, Van Ruiten, Kelliher, & Hope-Hailey, 2011), individual performance (Ng & Feldman, 2012), employee well-being (Morrison & Milliken, 2000), leadership effectiveness (Gyensare et al., 2019), and innovative work behaviour (Chen, Li, Wu, & Chen, 2020). Equally broad, the recent literature also presents EV as a consequence or an outcome of different conditions or factors within the work environment, such as psychological safety (Liang et al., 2012), job satisfaction (Memon & Ghani, 2020), psychological empowerment (Hasan & Kashif, 2021), organisational stressors and strains (Ng & Feldman, 2012), as well as leadership behaviour (Detert & Burris, 2007).

Psychological contract (PC), as a driver of employees' motivation and cooperation (Cullinane & Dundon, 2006), when honoured, is linked to helpful employee behaviours and constructive employment relations (Tekleab et al., 2020). However, unfulfilled or breached PCs lead to a multitude of negative work outcomes (see meta-analysis by Zhao, Wayne, Glibkowski, & Bravo, 2007). Extant research provides convincing empirical evidence that PCB relates negatively to employees' work engagement (Agarwal, 2014b), affective commitment (Rigotti, 2009), in-role performance (Hartmann & Rutherford, 2015), and organisational citizenship behaviour (Lu et al., 2015).

Despite the fact that PCBs seemed to be omnipresent (Jiang et al., 2017) and that they are perceived as the norm rather than the exception (Robinson & Rousseau, 1994), managers are under pressure to foster positive relationships with employees (Guest, 2004), as these are salient to organisational success and even survival (Liu, Zhu, & Yang, 2010). One strategy to alleviate the effects of PCB is through the usage of leadership style, which can be adjusted and applied so as to achieve desired outcomes, such as EV. Research by Ng, Feldman and Butts (2014) demonstrated how changes in social relations, which could result from changes in leadership styles, effect EV under conditions of PCB. The objective of this study is to assess the extent to which leadership style influences the relationship between PCB and EV.

The current research has been conducted at a level of complexity that, to the authors' knowledge, no previous study has matched. Firstly, the independent variable (PCB) included two types of breach, namely, transactional psychological contract breach (TPCB) and relational psychological contract breach (RPCB). Secondly, the dependent variable, EV, was studied as a four-dimensional construct with subconstructs related to supportive voice (SV), constructive voice (CV), defensive voice (DfV), and destructive voice (DsV). Finally, the four leadership styles, namely, transactional (TsL), transformational (TfL), directive (DL), and empowering leadership (EL), were studied in the model as moderators in the PCB-EV link. Adding this complexity was necessary for a number of reasons. Firstly, EV has evolved from a single construct (Hirschman, 1970; LePine & Van Dyne, 1998; Van Dyne & LePine, 1998) into a multidimensional concept, inferring dichotomous characteristics of different types of voice, which implies that the opposite to the promotive nature of voice also exists (Liang et al., 2012). Secondly, although research provides extensive evidence that PCBs negatively correlate with employees' discretionary behaviours (Zhao et al., 2007), including voice (Zagenczyk et al., 2015), it is still unknown in what way different types of PCB affect different types of EV. Finally, because employees' motivation to give voice is largely dependent on whether they believe their contributions are valued by their leaders (Farndale et al., 2011), it is necessary to establish how different leadership styles affect different types of EV under different conditions of TPCB and RPCB. Though some research related to this matter was done previously (Ng et al., 2014), the relevant studies did not include this diversity of leadership style.

Literature review

The literature review will briefly describe the three groups of variables used in this study and then report on empirical research linking these variables.

Voice

Initially, the concept of voice was associated with the customer's choice to express dissatisfaction in the company's offerings with the "intention to force a change in management" (Hirschman, 1970, p. 30). Since then, a few seminal authors have led the research on voice (see Liang et al., 2012; Maynes & Podsakoff, 2014; Morrison, 2011; Van Dyne & LePine, 1998), which propelled it into broad fields of interest related

to voice, namely, customer voice (see Griffin & Hauser, 1993; Shillito, 2000), voice as a channel of employees' inputs into managerial decision making (Budd, 2004), voice as means of communication with management (Freeman & Medoff, 1984), and voice as employee extra-role improvement-orientated behaviour (Morrison, 2011). Employee voice (EV) is defined as "discretionary communication of ideas, suggestions, concerns, or opinions about work-related issues with the intent to improve organizational or unit functioning" (Morrison, 2011, p. 375). It has developed into a universal organisational behavioural concept (Van Dyne et al., 2003) essential to organisational commitment (Farndale et al., 2011), employee engagement (Rees et al., 2013), individual performance (Ng & Feldman, 2012), and innovation (Veenendaal, 2015).

The organising framework for EV by Maynes and Podsakoff (2014) has become prevalent in recent conceptualisations. Building on the seminal work of previous scholars (Liang et al., 2012; Morrison, 2011; Van Dyne et al., 2003; Van Dyne & LePine, 1998), Maynes and Podsakoff distinguish between four types of EV, describing them as supportive, constructive, defensive, and destructive. The definitions for each of the voice types, are as follows: 1) supportive voice (SV) is defined as "the voluntary expression of support for worthwhile work-related policies, programmes, objectives, procedures, etc., or speaking out in defence of these same things when they are being unfairly criticised", 2) constructive voice (CV) is defined as "the voluntary expression of ideas, information or opinions focused on effecting organisationally functional change to the work context", 3) defensive voice (DfV) is defined as "the voluntary expression of opposition to changing an organisation's policies, procedures, programmes, practices, etc., even when proposed changes have merit or making changes is necessary", and 4) destructive voice (DsV), is defined as "the voluntary expression of hurtful, critical, or debasing opinions regarding work policies, practices, procedures, etc." (Maynes & Podsakoff, 2014, p. 91). Of the four, two types relate to the promotive nature of voice, being SV and CV, while the other two, DfV and DsV, relate to the prohibitive nature of voice.

EV is often represented as a dependent variable (see Chen & Hou, 2016; Morrison & Milliken, 2000; Pinder & Harlos, 2001; Seibert, Kraimer, & Crant, 2001) and the same will be done in this research.

Psychological contracts and psychological contract breaches

Without a doubt, Rousseau (1989, 1990, 1998, 2001, 2004, 2011) is the leading scholar on research on PC, and she is more referenced in this field than any of her counterparts. Rousseau defines PC as "individual beliefs, shaped by the organization, regarding terms of an exchange agreement between individuals and their organization" (1995, p. 9). PCs are most often differentiated as transactional (TPC) and relational (RPC), based on the nature and tangibility of the employer's perceived obligations (Rousseau, 1995). TPCs inculcate specified, transparent, short-term obligations and are described as the 'monetizable' exchange relationships in which employees value instant rewards such as training, fair remuneration, compensation leave and so on. In contrast, RPCs emphasise broad, long-term mutual obligations from both parties, such as support and development from employers and loyalty and commitment from employees. RPCs are characterised by a high degree of mutual interdependence with an emphasis on socio-emotional (loyalty and commitment) elements of exchange (Rousseau & McLean Parks, 1993). Aligned with social exchange theory (SET) (Blau, 1964), and specifically with its notion of reciprocity, it is argued that employees will likely reciprocate the treatment that they receive from their employers, based on their perception of whether they receive less or more of what has been promised (Cropanzano & Mitchell, 2005). Employees' perceptions of a degree of fulfilment of individual PCs then translate into distinct employee behaviours and reactions, either positive, if employees perceive that their employers have fulfilled their obligations, or negative, if they perceive that their employers have failed to deliver on their promises (Morrison & Robinson, 1997). The perceived failure of employers to deliver on their promises refers to PCB, the variable that is the focus of this study.

A large number of empirical investigations is dedicated to evaluations of the role PCBs play in affecting employees' behaviours (Flood et al., 2001). These studies provide convincing evidence that employees reciprocate PCBs by lowering in-role performance (Hartmann & Rutherford, 2015), work engagement (Agarwal, 2014b), affective commitment (Rigotti, 2009), and organisational citizenship behaviour (Lu et al., 2015). Furthermore, extant literature provides evidence that employees react to breaches differently under different PC conditions. Studies, which compared the effects of TPCB with the effects of RPCB, report that RPCBs, because of their socio-emotional and symbolic nature, tend to elicit stronger negative employee reactions

associated with decreasing levels of trust and organisational citizenship behaviour (Restubog, Hornsey, Bordia, & Esposo, 2008) and perceived organisational support (Zagenczyk et al., 2009).

Often in empirical investigations, PCB is presented as independent variable (see Akhtar, Bal, & Long, 2016; Hui et al., 2004; Kakarika, González-Gómez, & Dimitriades, 2017; Thomas et al., 2016; Vander Elst, De Cuyper, Baillien, Niesen, & De Witte, 2016). This research adopted a similar approach with TPCB and RPCB both being studied as independent variables.

Leadership style

The traditional two-way transactional-transformational leadership typology has been criticised by a number of researchers. Yukl (1989, p. 212) points out that limiting the leadership paradigm to transactional-transformational aspects of leadership is to oversimplify the complex phenomenon. Following Yukl (1989), and even some of the Full Range Leadership Theories designers, Bass and Avolio (1993, p. 76) encouraged researchers "to shape a leadership theory and model" to include a broader spectrum of leadership behaviours and attributes.

This study adopts the four-way leadership typology by Pearce, Sims, Cox, Ball, Schnell, Smith and Trevino (2003), which is based on the historical analysis of various leadership models and theories, as well as traditional leader behaviours and attributes. Pearce et al. (2003) differentiate between four distinct leadership styles, namely transactional (TsL), transformational (TfL), directive (DL), and empowering (EL) leadership. TsL refers to the behaviours that establish the parameters of the exchange relationship between the leader and the follower; TfL refers to those leader behaviours that encourage vision, produce inspiration from their followers, and motivate change, DL refers to behaviours where the leader gives orders on how the work needs to be done, and EL develops the followers so that they become effective and capable self-leaders.

Leadership styles are often presented in the conceptual models as traits (Walumbwa & Schaubroeck, 2009) that are relatively stable, but also situational (Ridlwan, Purwandari, & Syah, 2021), where leaders adjust their set styles to the situation. In this study, the leadership style variable is used as a moderator between TPCB and RPCB as independent variables and EV as a dependent variable. As a means of

managing the workplace, this research advocates a situational perspective on leadership, allowing leaders the ability to behave differently should the circumstances dictate that changes are necessary.

Empirical links between psychological contracts, psychological contract breaches and employee voice

The extant research provides strong empirical evidence on the notion that PCB is associated with negative individual and organisational outcomes (see Zhao et al., 2007). However, the research specifically focusing on the effects of PC and PCB on EV seemed limited. Furthermore, in those limited sources, some researchers approach voice as a unitary construct, while some report only on one or two broad subcomponents of EV. For example, Rees et al. (2013), in studying EV as a unitary construct, report that employees who experience positive relationships with their senior and line managers (which is generally associated with fulfilled PC) expressed voice more often as their reciprocal response to the positive treatment from management. In the meta-analysis on the relationship between workplace strains and stressors (specifically strained relationships with supervisors, breaches of promises and expectations, all associated with PCB) and work behaviours, Ng and Feldman (2012) found that, under conditions of major work strains and stressors (such as PCB), employees are unlikely to exercise voice behaviour. Interestingly, Liu et al. (2020), who studied the direct effects of relational and transactional PCBs on voice, reported that neither relational nor transactional breach had a direct effect on EV. In the broader approach, EV is perceived as a multidimensional construct, but these studies focus on one or two facets of a comprehensive EV conceptualisation. A number of models tested distinct types of voice, such as proactive voice (LePine & Van Dyne, 1998), promotive and prohibitive voice (Guo, 2017; J. Liang et al., 2012), and constructive and aggressive voice (Hagedoorn et al., 1999; Ng et al., 2014). When Ng et al. (2014) investigated the link between PCB and constructive and aggressive voice, they found that PCB was negatively related to constructive voice, but that the prediction of PCB having a direct relationship with aggressive voice was not supported. The findings on the absence of the PCB-aggressive voice link by Ng et al. (2014) contradict the earlier study by Turnley and Feldman (1999), in which it was concluded that PCB was significantly and positively related to aggressive voice. Employees' responses to dissatisfying work circumstances with aggressive voice are in line with the findings of Rusbult, Farrell, Roges and Mainous (1988), who stated that employees' reactions to dissatisfying jobs may range from constructive to very destructive. This echoes the conclusions of Ng et al. (2014) that, under conditions of PCB, employees will not only reduce positive work behaviours but will also increase negative work behaviours. That is, when employees experience PCB, they will likely withhold constructive voice and engage in counter-productive, negative behaviours (Ng et al., 2014). In the recent study investigating the effects of PCB on employees' promotive and prohibitive voices, Guo (2017) reported that PCB negatively relates to both, promotive and prohibitive EV. Thus, breaches result in withholding all discretionary behaviour. When organisational trust was added to the model as a possible mediator, the results revealed that organisational trust fully mediated the relationship between PCB and EV. Interesting findings were reported in the research by Balabanova, Ehrnrooth, Koveshnikov and Efendiev (2019) on the effects of different types of PCB on employee exit and constructive voice. The link between variables was tested within a sample of employees from Russia and Finland. The study reported that Russian employees reacted only to breaches of transactional contracts, whereas employees in Finland were responsive to both transactional and relational breaches. It was also found that, compared to negative association between RPCB and constructive voice among Finnish employees, the TPCB and RPCB links with constructive voice among Russian employees were found to be statistically non-significant. Over and above this, this specific study revealed that EV is not only organisational context dependent, but is also between-culture sensitive.

From this review, it is evident that, although the interest in antecedents of voice is growing, the research is limited. The possibility that different types of PCB, namely TPCB and RPCB, may serve as predictors of voice operationalised as a complex multidimensional construct, seemed unresearched, or at least, under-researched. To bridge the gap, this study aims to answer the question "What will the distinct effects of transactional and relational psychological contract breaches be on supportive, constructive, defensive, and destructive voice?"

Links between leadership and employee voice

The interest of researchers in how leadership influences EV is explicable, as eliciting employee extra-role or discretionary behaviours, such as voice, is salient for organisational survival (Liu et al., 2010). A large number of studies have been

dedicated to understanding leadership behaviour as a predictor of voice. Leadership research provides broad evidence that the organisational context, partially created by leadership, influences employees' willingness to speak up, including providing creative ideas and constructive insights. Leadership behaviour is identified as instrumental in influencing employees' decisions to voluntarily offer their suggestions for organisational improvements (Gao, Janssen, & Shi, 2011). For leaders, it is fundamentally important to react to employees' expression of voice, as they are the targets thereof (Detert & Burris, 2007). Thus, in this research, the link between four leadership styles, namely TsL, TfL, DL, and EL, and four types of EV, namely SV, CV, DfV, and DsV, will be investigated, with leadership style acting as a moderator between PCB and EV. From the literature search, it became apparent that there are more studies focusing on TfL-EV and EL-EV links than on TsL-EV and DL-EV links. No studies including all the mentioned leadership styles as well as types of EV were found, let alone research including these eight variables as well as PCB.

It was deemed necessary, as background to the study, to provide information on the leadership style-EV association. In their investigation of the relationship between TfL and subordinates' improvement-orientated voice, Detert and Burris (2007) reported that transformational leader behaviour was positively related to voice. As TfL is indicative of an orientation towards organisational improvements, the authors concluded that TfL positively relates to employees' perceptions that it is safe to speak up and their willingness to engage in voice. In the more recent study on the links between TfL and EV, by Wang, Zheng and Zhu (2018), it was found that TfL positively and significantly correlates with EV. The authors explained these findings as illustrating that transformational leaders build safe and supportive environments where employees are motivated to voice new ideas and opinions (Wang et al., 2018).

The empirical findings on the relationship between EL and EV are generally consistent in reporting on the positive correlation between the two variables. By way of example, Jada and Mukhopadhyay (2018) investigated the effects of EL on CV. Their study revealed that EL had both direct and indirect (through psychological safety) effects on CV. These findings are aligned with social exchange theory (SET) (Blau, 1964) in that, when leaders exercise empowering leadership behaviour, they create a positive and psychologically safe environment where employees feel obligated to reciprocate to the organisation in a form of speaking up with suggestions and ideas for organisational

improvements (Jada & Mukhopadhyay, 2018). Three types of EV, namely, pro-social, acquiescent, and defensive, were studied as dependent variables in the investigation of Li, Huang, Shu and Liu (2018). Their research reported on the indirect effects of EL on three types of voice, specifically, a positive indirect effect of EL on pro-social voice and negative indirect effects on acquiescent voice and defensive voice. These indirect effects were moderated by employees' work stress. In the case of pro-social voice, the work stress lessened the positive link between EL and pro-social voice, and in the case of acquiescent and defensive voices, the work stress augmented the negative link between the variables.

Interest in studying the effects of ethical leadership on voice is understandable, as evidence exists that ethical leaders encourage employees to voice their ideas and opinions on improvements of work procedures and environments (Walumbwa & Schaubroeck, 2009). In line with the findings of Walumbwa and Schaubroeck (2009), the research on the links between ethical leadership, voice behaviour and creativity by Chen and Hou (2016) reports a positive and significant relationship between ethical leadership and voice. Similar results were also reported in the study by Yousaf, Abid, Butt, Ilyas and Ahmed (2019), who found that ethical leadership had a positive significant relationship with voice. The authors argue that ethical leaders are trusted by employees, they encourage employees to speak up and they strive to maintain better communication with their subordinates. The usage of other leadership styles investigating links between the two variables was also found in the literature. For example, in the recent study of the relationships between authoritarian, benevolent and moral leadership styles and EV, it was argued that authoritarian leadership was associated with decreased levels of EV, the effect of benevolent leadership on voice was found to be non-significant, and the correlation between moral leadership and voice was positive and significant (Soomro et al., 2021)

The paucity of the research focusing specifically on the indirect effects of different leadership styles on EV, or multiple forms of EV, necessitated this study. Particularly, the possibility that TsL and DL may serve as indirect predictors of voice is unresearched or, at least, under-researched. This study aims to answer the second set of questions: "Which leadership style will likely activate the promotive types of employee voice (supportive and constructive) given the dominant type of the psychological contract breach?". Alternatively, "Which leadership style will likely

weaken the prohibitive types of employee voice (defensive and destructive), given the dominant type of the psychological contract breach?".

Research framework and hypotheses

The research framework appears in Figure 1. It suggests a relationship between PCB and voice, with leadership style as a possible moderator.

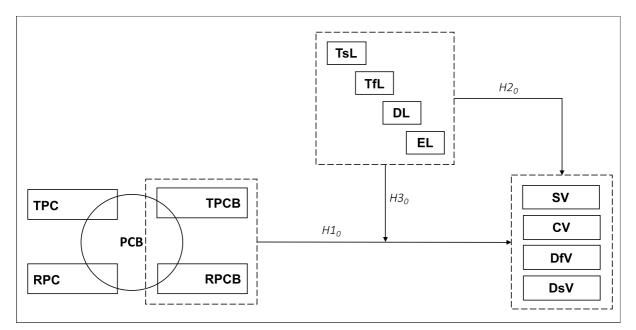


Figure 1. A framework representing the relationships between TPCB, RPCB and different types of voice with TsL, TfL, DL, and EL moderating the relationship. In this figure, TPC=Transactional psychological contract, RPC=Relational psychological contract, PCB=Psychological contract breach, TPCB=Transactional psychological contract breach, SV=Supportive voice, CV=Constructive voice, DfV=Defensive voice, DsV=Destructive voice, TsL=Transactional leadership, TfL=Transformational leadership, DL=Directive leadership, EL=Empowering leadership

Social exchange theory (SET) (Blau, 1964) and Psychological contract theory (PCT) (Robinson & Rousseau, 1994; Rousseau, 1995, 2011; Rousseau & McLean Parks, 1993) formed the basis of this framework. Both SET, being foundational in explaining workplace associations (Shore & Barksdale, 1998), and PCT, which advocates that fulfilled PCs are linked to positive employee attitudes and behaviours, focus on norms of reciprocity (Gouldner, 1960).

The following broad hypotheses were set:

H1₀: All PCBs have a direct and similar impact on all four types of employee voice

H2₀: All leadership styles have a direct and similar impact on employee voice

In view of the fact that PCBs are omnipresent and considered to be a norm of workplace relations (Robinson, Kraatz, & Rousseau, 1994), the senior and/or the line manager's leadership style could be the mechanism that may buffer or exacerbate the negative effects of PCBs on employee behaviour, dependent on the type of the leadership style applied by a manager. By definition, it is logical to assume that TfL and EL styles will buffer or lessen the effects of breach on all four types of EV. Following the same line of thought, it can be assumed that TsL and DL styles will exacerbate the negative effects of breaches on all four types of EV. The third null hypothesis could then be stated as follows:

H₃₀: All leadership styles affect the relationship between PCBs and employee voice

The method for testing the aforementioned hypotheses is described below.

Method

This study was designed as a cross-sectional survey, which is appropriate for data collection and the proposed hypotheses testing.

Population and sample characteristics

In line with recommendations for variability in responses (Zagenczyk et al., 2009), the targeted sample population consisted of employees of all races, both genders and ages, and at different levels of responsibility. A group of students enrolled in the Master's in Business Leadership programme at a major South African business school assisted with data collection by approaching organisations with more than 60 employees. The size of the organisations was determined based on the assumption that the employment relations in these organisations would be formalised and that a broad range of contracts would be in place. Human resources practitioners from each of the selected organisations were approached to assist with drawing a random selection of employees for participation in this research.

Measures

A self-report survey was conducted across all three measures. This approach is acceptable as perceptions of employees on the nature of their PC, as well as the extent of its fulfilment or breach by the employer (PCB), are individual and subjective (Rousseau, 1995). With regard to voice, self-reported measures are widely used in

the organisational research field (Axtell et al., 2000; Parker et al., 2006) due to employees, in comparison to their supervisors and peers, being more aware of the nuances of their suggestions and own beliefs, as well as whether these carry an instrumental value for the group or the organisation (Ng et al., 2014). Finally, selfreporting on discretionary behaviour such as voice (LePine & Van Dyne, 1998) provides a better insight into individuals' assessment of intensity and frequency of own voice behaviour.

PC. PC was measured using Millward and Hopkins' (1998) Psychological Contract Scale (PCS). The original 33-item instrument (20-items for transactional contract and 13-items for relational contract scales) was reduced to five items for measuring transactional contracts and five items for measuring relational contracts, using the items with the highest average factor loadings of each construct, as recommended by Bateman and Crant (1993) and used by Strydom (2013). Each PC type was measured on a seven-point Likert scale ranging from 1, "Strongly disagree" to 7, "Strongly agree". Sample items are "I only carry out what is necessary to get the job done", for transactional contract, and "To me working for this organization is like being a member of a family", for relational contract. Millward and Hopkins (1998) reported a Cronbach's alpha of .86 for all relational items, and .88 for all transactional items.

PCB. PCB was measured using Robinson and Morrison's (2000) nine-item scale, measuring the violation with four items and the breach with five items. The motivation behind reporting on a total score for both violation and breach is based on the idea that, theoretically, employees' experiences of either violation or breach, or both, result in the [negative] work outcomes (Bal et al., 2008; Raja et al., 2004; Tekleab & Taylor, 2003), and that both would affect discretionary behaviours, such as voice, in the same direction. Robinson and Morrison (2000) report a Cronbach's alpha of .85 for violation and of .88 for breach. Reporting of breach and violation is done by the reverse scoring of a fulfilment measure on a Likert scale ranging from 1 to 5 (disagree–agree). A sample item reads as follows: "Almost all the promises made by my employer during recruitment have been kept so far" (reversed).

Voice. Voice was measured using Maynes and Podsakoff's (2014) 20-item voice scale, with five items related to each sub-scale, these being supportive, constructive, defensive, and destructive voice sub-scales. The four types of voice were measured on a seven-point Likert scale, where 1 is "Strongly disagree" and 7 "Strongly agree".

The authors reported Cronbach's alphas for supportive voice of .89, for constructive voice .95, for defensive voice .92, and for destructive voice .93. The sample items are: "I defend useful organizational policies when other employees unfairly criticise the policies" (supportive voice); "I frequently make suggestions about how to do things in new or more effective ways at work" (constructive voice); "I vocally argue against changing work practices, even when making the changes is necessary" (defensive voice); and "I frequently make overly critical comments regarding how things are done in the organization" (destructive voice).

Leadership styles. TsL and TfL were measured with the shortened scale of Podsakoff, MacKenzie, Moorman and Fetter (1990), with a total number of 11 items, comprised of five items for TsL, and six items for TfL, and were measured on a seven-point Likert scale ranging from "Strongly Disagree" (1) to "Strongly Agree" (7). The authors report the Cronbach's alpha for each of the dimensions as ranging between .78 and .92. Sample items are "My manager always gives me positive feedback when I perform well" for TsL and "My manager is always seeking new opportunities for the organization" for TfL.

DL was assessed using six items developed by Pearce and Sims (2002) and four items from Hwang, Quast, Center, Chung, Hahn and Wohkittel (2015). While Hinrichs (2011) indicates a Cronbach's alpha for the six-item scale of Pearce and Sims (2002) at an acceptable reliability level of .88, Hwang et al. (2015) report a similar result for their four-item measure, which delivered a Cronbach's alpha coefficient of .85. In their recent study, Solomon and Steyn (2017) report a Cronbach's alpha of .87 for the two measures combined. The sample items for DL are: "When it comes to my work, my team leader gives me instructions on how to carry it out" (Pearce & Sims, 2002) and "My manager identifies specific action steps and accountabilities" (Hwang et al., 2015).

EL was measured using the 10-item scale adopted by Ahearne, Mathieu and Rapp (2005) from various sources. The leadership empowerment behaviour (LEB) scale consists of four multi-item sub-scales where each sub-scale focusses on a specific aspect of EL behaviour, namely, enhancing the meaningfulness of work (Cronbach's alpha of .76), fostering participation in decision making (Cronbach's alpha of .92), expressing confidence in high performance (Cronbach's alpha of .90), and providing autonomy from bureaucratic constraints (Cronbach's alpha of .86). The sample items are: "My manager helps me understand how my objectives and goals relate to that of

the Company" and "My manager allows me to do my job my way". Solomon and Steyn (2017) report an average Cronbach's alpha of .93.

Statistical analyses

Demographic statistics were first calculated and then interpreted in terms of the representation of the population. The basis for comparison was information reported by Stats SA (2020).

The normality of the collected data was analysed next in terms of skewness and kurtosis. The guidelines of Field (2009) were used to interpret skewness and kurtosis scores. If the observed SPSS value divided by the standard error of that value were to be larger than 1.96, or smaller than -1.96, the data would be interpreted as displaying a serious deviation from normality.

The reliability was calculated using the Cronbach's alpha coefficient. The recommendations by Tavakol and Dennick (2011) regarding Cronbach's alpha ranges was considered (larger than .90 (excellent), .89 - .80 (good), .79 - .70 (acceptable), .69 - .60 (questionable), .59 - .50 (poor), and smaller than .50 (unacceptable)). In this study, the more lenient guidelines of Pallant (2013) were accepted, with the Cronbach's alpha coefficient considered as being satisfactory where scores exceeded .70, and with scores above .80 accepted as desirable.

The adequacy of the data was analysed through factorial validity testing, particularly, by calculating Kaiser–Meyer–Olkin's score of sampling adequacy (KMO) and Bartlett's score of sphericity. The results were considered acceptable when the KMO score was excellent (>.90) (Field, 2009), and when the Bartlett's test value was significant (p<.001) (Pallant, 2013). When analysing factor loadings for fit, the dominant loading of items in the theorised manner, along with the absence of significant cross-loadings, was interpreted as indicative of factorial validity.

Pearson product-moment correlations (r) were calculated next. Correlations with a significance value of less than .01 were deemed as statistically significant (given the relatively large sample), with r < .10 (or < -.10) deemed insignificantly small, .10 to .29 (or -.10 to -.29) as small, .30 to .49 (or -.30 to -.49) as medium, and .50 to 1.0 (or -.50 to -1.0) as large (Cohen, 1988).

Regression analyses were also performed. In this study, the total size of the regression coefficient was of less concern, with the focus primarily on the significance of the beta

values of the different predictors in the regression models. Statistically significant predictors (p<.01) were deemed as unique and substantial contributors to the variance in the dependent variable (Fairchild & MacKinnon, 2009).

Moderation was tested based on the procedures recommended by Fairchild and MacKinnon (2009). Their method entails performing a regression without including the moderator as a variable in the regression (Model 1), and thereafter adding the moderator (leadership styles; Model 2), and finally adding the moderator and the interaction effect (PCB x leadership style; Model 3). In general, the interest is in ΔR^2 , using Model 1 as a baseline model. If ΔR^2 is positive and significant across three models, this suggests improved models and the specific importance of adding the additional variable. Should leadership style directly predict voice (Model 2, with leadership style having a significant beta value), it is representative of a direct effect, making it an antecedent of voice. Should the interaction between leadership style and any predictor subcomponent be significant (Model 3, e.g., PCB x TsL having significant beta values), this is representative of leadership style moderating the relationship between PCB and EV.

Results

Demographics

A total of 620 participants provided complete data on the variables of interest. There were 313 men (50.5%) and 301 women (48.5%) (data from six respondents were missing). Most respondents, 440, were black (71%), 103 respondents were white (16.6%), 42 coloured (6.8%) and 28 Asian (4.5%). In the sample, 254 respondents (41%), had obtained a higher degree or diploma, 203 respondents (32.7%) had their 1st degree or diploma, 138 participants (22.3%) had matric (senior certificate), and 19 (3.1%) had less than 12 years of education. The average age was 37.8 years and the sample consisted of respondents from a well-distributed age group (standard deviation of 8.841), varying between 21 and 64 years. The average tenure was 6.59 years, with the range between 1 and 42 years (standard deviation of 5.848). The data implied that most respondents were well qualified for reporting on perceptions of employment relations, as well as on observed organisational practices.

Reliability

The reliability of the different instruments used in the study is as follows.

Table 1

Reliability of measures for TPC, RPC, PCB, leadership styles and SV, CV, DfV and DsV (N=620)

Instrument	Number of items	Cronbach's alpha coefficient
Transactional psychological contract (TPC)	5	.764
Relational psychological contract (RPC)	5	.794
Psychological contract breach (PCB)	9	.945
Supportive voice (SV)	5	.878
Constructive voice (CV)	5	.931
Defensive voice (DfV)	5	.904
Destructive voice (DsV)	5	.897
Transactional leadership (TsL)	5	.957
Transformational leadership (TfL)	6	.924
Directive leadership (DL)	10	.889
Empowering leadership (EL)	10	.992

The reliability of all the instruments used was acceptable, with the lowest value of .764 (which is above the cut-off score of .70) and the majority of alpha values exceeding .80, placing these reliability scores within the desirable range (Pallant, 2013).

<u>Validity</u>

The structural validity of the instruments used in this article was tested and found to be satisfactory. The results are not presented here due to their comprehensiveness, but they are available from the first author, on request.

Descriptive statistics

Mean scores and statistics related to the distribution of the data is presented in Table 2.

Table 2

	Min.	Max.	Mean	Std. Dev.	Skewness ^a	Kurtosis ^b
TPC	1	7	4.406	1.6286	-0.145	-1.006
RPC	1	7	2.994	1.4955	0.817	0.027
РСВ	1	5	3.989	0.9137	-0.855	0.250
TPC x PCB	1	35.00	17.7255	8.4247	0.255	-0.831
RPC x PCB	1	33.44	11.2390	5.2638	0.940	1.271
SV	1	7	6.149	1.2501	-1.868	3.291
SV	1	7	2.203	1.1341	1.178	1.493
DfV	1	7	2.043	1.1404	1.506	2.616
DsV	1	7	5.880	1.3687	-1.336	1.207
TsL	1	7	2.592	1.6896	1.229	0.654
TfL	1	7	2.640	1.6083	1.056	0.271
DL	0	5	2.470	0.8606	0.480	0.031
EL	0	7	2.693	1.4016	1.081	0.845

Descriptive statistics (N=620)

^a Standard error of skewness=.098 ^b Standard error of kurtosis=.196

Note: TPC=Transactional psychological contract; RPC=Relational psychological contract; PCB=Psychological contract breach; SV=Supportive voice; CV=Constructive voice; DfV=Defensive voice; DsV=Destructive voice; TsL=Transactional leadership; TfL=Transformational leadership; DL=Directive leadership; EL=Empowering leadership.

In accordance with the conceptual framework, two new variables were created. These are TPC x PCB and RPC x PCB, which are the interaction of the two psychological contracts and psychological contract breach.

Correlation analyses

The Pearson correlation coefficient was calculated for all the predictor variables and the independent variables on EV. The results presented below relate to H1 and H2.

Table 3

Correlation matrix (N=620)

	SV	CV	DfV	DsV
РСВ	208***	-0.042	.260***	.329***
TPC x PCB=TPCB	232***	110**	.324***	.272***
RPC x PCB=RPCB	0.059	.178***	.179***	0.045
TsL	.103*	.206***	-0.010	105**

	SV	CV	DfV	DsV
TfL	.143***	.157***	-0.019	182***
DL	.088*	0.028	0.055	135**
EL	.170***	.240***	-0.025	151***

***p<.001; ** p<.01; * p<.05

Note: Shaded cells contain values with practically significant correlations of medium-size effect; PCB=Psychological contract breach; TPCB=Transactional psychological contract breach; RPCB=Relational psychological contract breach; SV=Supportive voice; CV=Constructive voice; DfV=Defensive voice; DsV=Destructive voice; TsL=Transactional leadership; TfL=Transformational leadership; DL=Directive leadership; EL=Empowering leadership.

In Table 3, several statistically significant correlations are observed. It can also be observed that, in two instances, these correlations were significant at a practical level (the shaded cells in the table).

Regression analyses: The moderation effects of leadership style on the PCB-EV, TPCB-EV, and RPCB-EV links

Stepwise hierarchical regression analyses were performed with the sole purpose of identifying and specifying the moderation effects of leadership style on the PCB-EV relationship (Table 4), and moderation effects of leadership style on TPCB-EV and RPCB-EV links (Table 5 and 6). The focus in these tables should be on the improvement (if any) in the Adjusted R² from Model 2 to Model 3, and the statistical significance of beta values for interactions in Model 3.

Table 4

Regression analyses: Psychological contract breach and leadership styles as predictors of different types of employee voice

Variable Predicted	SV	CV	DfV	DsV
Model Summary	Adjusted R ²	Adjusted R ²	Adjusted R ²	Adjusted R ²
	Model 1: .042	Model 1: .000	Model 1: .066	Model 1: .107
	Model 2: .053	Model 2: .079	Model 2: .079	Model 2: .113
	Model 3: .048	Model 3: .079	Model 3: .089	Model 3: .116
Model Fit	ANOVA	ANOVA	ANOVA	ANOVA
	Model 1:	Model 1:	Model 1:	Model 1:
	F=28.03***	F=1.09	F=44.83***	F=75.13***
	Model 2:	Model 2:	Model 2:	Model 2:
	F=7.98***	F=11.55***	F=11.65***	F=16.78***
	Model 3:	Model 3:	Model 3:	Model 3:
	F=4.50***	F=6.92***	F=7.69***	F=10.02***

Mo	odel	Standardised Coefficients Beta	Standardised Coefficients Beta	Standardised Coefficients Beta	Standardised Coefficients Beta
1	PCB	-0.208***	-0.042	0.260***	0.329***
2	PCB	-0.180***	0.012	0.296***	0.304***
	TsL	-0.069	0.140*	0.036	0.115
	TfL	0.065	-0.032	-0.009	-0.146*
	DL	-0.059	-0.183***	0.156**	0.008
	EL	0.155**	0.282***	-0.052	-0.046
3	PCB	-0.240*	-0.047	0.519***	0.382**
	TsL	0.084	0.497	0.551*	0.714**
	TfL	-0.085	-0.002	-0.130	-0.610*
	DL	-0.118	-0.249	0.290	0.126
	EL	0.132	-0.050	-0.109	-0.130
	PCB x TsL	-0.145	-0.340	-0.492*	-0.567*
	PCB x TfL	0.143	-0.042	0.090	0.423
	PCB x DL	0.066	0.084	-0.137	-0.115
	PCB x EL	0.022	0.327	0.044	0.069

***p<.001; ** p<.01; * p<.05

Note: Shaded cells contain statistically significant beta-values related to moderation; RPC=Relational psychological contract; PCB=Psychological contract breach; SV=Supportive voice; CV=Constructive voice; DfV=Defensive voice; DsV=Destructive voice; TsL=Transactional leadership; TfL=Transformational leadership; DL=Directive leadership; EL=Empowering leadership.

From the observed changes in Adjusted R² (Δ R²) for DfV and DsV in the table above, it can be concluded that the moderation models have added exploratory power. For DfV Δ R²⁼.01 and for DsV Δ R²=.003. The defining test of moderation (Fairchild & MacKinnon, 2009), where the interactions of the independent variables are statistically significant predictors of the dependent variables, reveals that TsL moderates the relationship between PCB and both DfV and DsV. As TsL (as an independent variable) still remains a significant predictor in Model 3, for both DfV and DsV, the moderation is partial only.

Table 5

Regression analyses: Transactional psychological contract breach and leadership styles as predictors of different types of employee voice

	riable edicted	SV	CV	DfV	DsV
Model Summary		Adjusted R ²	Adjusted R ²	Adjusted R ²	Adjusted R ²
		Model 1: .052	Model 1: .011	Model 1: .103	Model 1: .073
		Model 2: .063	Model 2: .081	Model 2: .104	Model 2: .089
		Model 3: .063	Model 3: .086	Model 3: .112 ANOVA	Model 3: .101
Mo	odel Fit	ANOVA	ANOVA	ANOVA	ANOVA
		Model 1:	Model 1:	Model 1:	Model 1:
		F=35.09***	F=7.57**	F=72.33***	F=49.39***
		Model 2:	Model 2:	Model 2:	Model 2:
		F=9.28***	F=11.88***	F=15.42***	F=13.15***
		Model 3:	Model 3:	Model 3:	Model 3:
		F=5.63***	F=7.49***	F=9.64***	F=8.74***
Mo	odel	Standardised Coefficients	Standardised Coefficients	Standardised Coefficients	Standardised Coefficients
		Beta	Beta	Beta	Beta
1	ТРСВ	-0.232***	-0.110**	0.324***	0.272***
2	ТРСВ	-0.201***	-0.050	0.330***	0.249***
	TsL	-0.052	0.141*	0.009	0.091
	TfL	0.072	-0.041	-0.019	-0.168*
	DL	-0.016	-0.179***	0.085	-0.055
	EL	0.118*	0.271***	0.007	-0.005
3	ТРСВ	-0.221	-0.072	0.556***	0.311*
	TsL	0.027	0.403**	0.298*	0.313*
	TfL	0.233	-0.028	-0.146	-0.629***
	DL	-0.041	-0.304*	0.165	-0.011
	EL	-0.063	0.205	-0.009	0.205
	TPCB x TsL	-0.091	-0.293*	-0.323*	-0.232
	TPCB x TfL	-0.201	-0.036	0.115	0.524**
	TPCB x DL	0.042	0.196	-0.135	-0.068
	TPCB x EL	0.229	0.081	0.000	-0.280*

***p<.001; ** p<.01; * p<.05

Note: Shaded cells contain statistically significant beta-values related to moderation; TPCB=Transactional psychological contract breach; SV=Supportive voice; CV=Constructive voice; DfV=Defensive voice; DsV=Destructive voice; TsL=Transactional leadership; TfL=Transformational leadership; DL=Directive leadership; EL=Empowering leadership.

When considering the moderation effects of leadership styles on TPCB predicting CV, DfV and DsV, the moderation model displayed an additional exploratory power. For CV $\Delta R^{2=}.005$, DfV $\Delta R^{2=}.008$ and for DsV $\Delta R^{2}=.012$. In the test for moderation, where the interactions of the independent variables are statistically significant predictors of the dependent variables, it was found that TsL moderates the relationship between TPCB and both CV and DfV. TfL and EL moderates the TPCB-DfV relationship. As TsL (as an independent variable) still remains a significant predictor in Model 3, for both CV and DfV, the moderation here is only partial. The same applies to TfL as a moderator, where the moderation is partial as well. However, for EL moderation is full.

Table 6

Va	riable	SV	CV	DfV	DsV
	edicted		_		_
Model Summary		Adjusted R ²	Adjusted R ²	Adjusted R ²	Adjusted R ²
		Model 1: .002	Model 1: .030	Model 1: .030	Model 1: .000
		Model 2: .025	Model 2: .099	Model 2: .034	Model 2: .037
		Model 3: .023	Model 3: .103	Model 3: .036	Model 3: .045
Mo	odel Fit	ANOVA	ANOVA	ANOVA	ANOVA
		Model 1:	Model 1:	Model 1:	Model 1:
		F=2.17	F=20.14***	F=20.36***	F=1.23
		Model 2:	Model 2:	Model 2:	Model 2:
		F=4.23***	F=14.62***	F=5.37***	F=5.76***
		Model 3:	Model 3:	Model 3:	Model 3:
		F=2.61**	F=8.88***	F=3.54***	F=4.22***
Mo	odel	Standardised	Standardised	Standardised	Standardised
		Coefficients	Coefficients	Coefficients	Coefficients
	Γ	Beta	Beta	Beta	Beta
1	RPCB	0.059	0.178***	0.179***	0.045
2	RPCB	0.033	0.147***	0.185***	0.081*
	TsL	-0.063	0.122*	-0.001	0.090
	TfL	0.096	-0.039	-0.066	-0.201**
	DL	-0.040	-0.196***	0.106*	-0.035
	EL	0.163**	0.278***	-0.072	-0.063
3	RPCB	-0.088	0.067	0.250*	0.361**
	TsL	-0.052	0.204	0.219	0.327*
	TfL	-0.050	-0.227	-0.404*	-0.327

Regression analyses: Relational psychological contract breach and leadership styles as predictors of different types of employee voice

DL	-0.120	-0.075	0.187	0.076
EL	0.260	0.114	0.020	0.038
RPCB x TsL	-0.016	-0.130	-0.289	-0.297
RPCB x TfL	0.207	0.265	0.462*	0.156
RPCB x DL	0.145	-0.193	-0.137	-0.203
RPCB x EL	-0.144	0.246	-0.130	-0.142

***p<.001; ** p<.01; * p<.05

Note: The shaded cell contains the single statistically significant beta-value related to moderation; RPCB=Relational psychological contract breach; SV=Supportive voice; CV=Constructive voice; DfV=Defensive voice; DsV=Destructive voice; TsL=Transactional leadership; TfL=Transformational leadership; DL=Directive leadership; EL=Empowering leadership.

When considering the moderation effects of leadership style on RPCB predicting CV, DfV and DsV, this moderation model has also shown an improvement in exploratory power. For CV $\Delta R^{2=}.004$, DfV $\Delta R^{2=}.002$ and for DsV $\Delta R^{2=}.008$. In the test for moderation, it was found that TfL moderates the relationship between RPCB and DfV. As TfL (as an independent variable) still remains a significant predictor in Model 3, the moderation was partial.

The outcomes of the hypotheses are presented graphically in Figure 2 below.

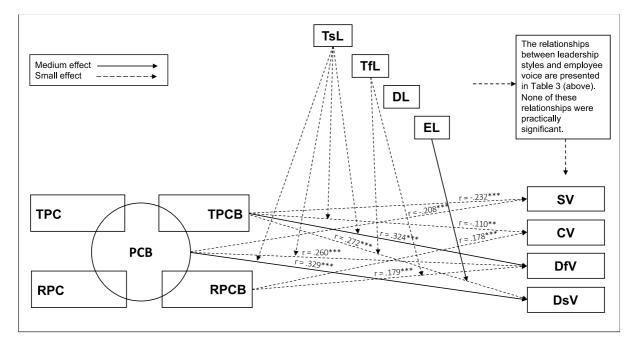


Figure 2. The results of the interplay between PCB, TPCB, RPCB and different types of voice with TsL, TfL, DL, and EL moderating the relationship. In this figure TPC=Transactional psychological contract, RPC=Relational psychological contract, PCB=Psychological contract breach, TPCB=Transactional psychological contract breach, RPCB=Relational psychological contract breach, SV=Supportive voice,

CV=Constructive voice, DfV=Defensive voice, DsV=Destructive voice, TsL=Transactional leadership, TfL=Transformational leadership, DL=Directive leadership, EL=Empowering leadership

Discussion

This study aimed to empirically evaluate how PCBs, as well as particular types of PCB, these being TPCB and RPCB, are linked to different types of EV, as well as how different leadership styles affect these relationships. The literature on the interplay between variables investigated in the proposed conceptual model is scarce, which prompted this research.

The cross-sectional design of the study was adequately suited to meeting the objectives of the research. The participants fairly represented the population sample in terms of their sex and race, aligned as they were to the numbers reported by Stats SA (Statistics South Africa, 2020). Therefore, it was concluded that generalising the findings of this study across the broader South African context would be reasonable.

The reliability scores of all the instruments used in the study fell within the range between .764 and .992, which is acceptable (Pallant, 2013). The structural validity of the instruments used in this article was tested and found to be satisfactory. As stated above, the results are available from the first author, on request.

Three null hypotheses were set for the investigation:

H1₀: All PCBs have a direct and similar impact on all four types of employee voice.

H2₀: All leadership styles have a direct and similar impact on employee voice.

H3₀: All leadership styles affect the relationship between PCBs and employee voice.

The first hypothesis was addressed in Table 3 by means of the Pearson correlation analyses. It was found that PCB related positively and significantly to the prohibitive forms of EV (DfV and DsV), but correlated negatively with the promotive forms of EV (SV and CV), though the relationship with CV was not significant. CV is mentioned here to indicate the [negative] direction of the effect, and to illustrate that PCB positively relates to prohibitive, and negatively to promotive forms of voice. The only practically significant relationship between PCB and EV occurred in the instance of DsV. It could therefore be stated that PCB and DsV go hand-in-hand. It was found that

transactional type of PCB, compared to overall PCB, which is also illustrated with the [negative] direction of the correlation with the prohibitive forms of voice, is a stronger facilitator of the prohibitive voice, and to a lesser extent an inhibitor of the promotive voice, as in all these cases the relationships were statistically significant. It is important to note here that TPCB and DfV had a practically significant relationship, thus implying that TPCB incites DfV. In general, RPCB has presented lower correlations with EV. Interestingly, the direction of the associations is positive throughout, however, it is not practically significant in any of the cases. These results affirm the earlier findings on significant and positive correlation between PCB and aggressive voice (Turnley & Feldman, 1999), and significant and negative correlation between PCB and CV/promotive voice (see Guo, 2017; Ng et al., 2014). Furthermore, this study provides new insights on the effects of transactional and relational breaches on four distinct types of employee voice. The disparate results in previous investigations on TPCB/RPCB-EV links are understandable, as the findings were dependent on the choice of voice studied as a dependent variable. In addition, inconsistent results could also be explained by voice having been studied by some researchers as a unitary construct (LePine & Van Dyne, 1998; Rees et al., 2013) and by some as a particular voice dimension (Liang et al., 2012; Ng et al., 2014). The current study addresses this dilemma of disparity by providing empirical evidence on the interplay between TPCB/RPCB and four dimensions of EV.

The second hypothesis was also addressed in Table 3 with the correlation analyses. It was found that none of the four leadership styles significantly related to DfV. Although none of the correlations between leadership styles and all four types of EV were practically significant, it could be noted that EL had the highest correlation with SV and CV, and that TfL impacted most negatively on DsV. Although the findings on the positive and significant EL-CV link is supported by previous studies (Jada & Mukhopadhyay, 2018), the findings on the direct effects of leadership styles on other dimensions of voice are novel.

Considering the outcomes of Hypotheses 1 and 2, it can be stated that, in a comparison between the effects of PCB and leadership style on EV, and at a practical level, PCB has proven to have a higher direct impact on EV than any of the four leadership styles. Leadership styles are thus not a direct predictor of voice, which makes testing for Hypothesis 3 necessary.

Hypothesis 3 was related to the likelihood of leadership style moderating the PCB-EV relationship. It was particularly important to find out whether some or any of the leadership styles had a propensity to buffer, or whether any of the leadership styles tend to exacerbate, the effects of PCB. The conclusions presented below are related to each type of leadership style given the type of the PCB:

- Under conditions of PCB (in general), TsL buffers PCB's effect on DfV and DsV. With regard to TPCB, TsL buffers the effect on DfV, but lessens the intensity of CV. It thus seems that when psychological contracts are violated, dealing with consequences of breach explicitly, in a contractual manner (TsL), would lessen defensive and destructive, but not necessarily increase promotive forms of voice. Linking TsL with DfV seems acceptable, as both parties respect the "rulebook". The link with CV also seems understandable, as parties would allow constructive negotiation, particularly when a breakdown occurs in a transactional environment (TPCB). However, the significant and negative link between PCB x TsL interaction and DsV is difficult to explain.
- TfL exacerbates the effects of TPCB on DsV. This could be explained using the example of a manager who acts as a transformational leader, but who breaks the "rulebook" (TPCB), making an employee likely to respond with destructive voice behaviour. TfL also aggravates the effects of RPCB on DfV. This could be explained by the fact that when a transformational leader breaks an employee's trust, that employee may become confrontational.
- DL is found to have no impact on the PCB-EV relationship.
- Finally, the findings suggest that EL tends to have a negative effect on DsV, and that this occurs particularly under conditions of TPCB. It could mean that in the environment typified by TPCB, when a leader acts in an empowering manner, destructive voice behaviour could be lessened.

These results are in many respects novel, as the present body of research on this matter is, as far as our investigation goes, absent. However, questions could quite legitimately be asked about the interpretations presented immediately above, and many other counter-arguments could be provided. Limited to the present data, the authors will abide by these results and interpretations.

Conclusions

This research aimed to identify leadership styles particularly effective in managing EV, given conditions of PCBs. Based on the comprehensive empirical analyses, it was revealed that no single leadership style was omni-influential. Nevertheless, it was found that TsL had the most profound buffering effect on the PCB-EV links, for both defensive and destructive forms of voice, although the effect on constructive voice within a transactional environment was the opposite. Similarly, empowering leadership had a buffering effect on the PCB-EV link. This showed that, where transactional breaches take place, the empowering leader will lessen the expression of employees' destructive voice.

In the light of these implicit relational dynamics, this study aimed to further advance understanding of social exchange relationships that reinforce the PCB-EV link by exploring the relative contribution of leadership style in moderating the way psychological contract breach is associated with EV. In this research, a significant contribution was made by investigating relationships between TPCB, RPCB, four leadership styles, and four types of EV, studied together in one conceptual model, something that has not been done in previous literature.

From an academic perspective, complexity was added to the PCB, leadership, and EV debate. Leadership does not seem to be as influential as theories suggest. Researchers are encouraged to explore different mechanisms that could possibly influence the PCB and EV relationship, as EV is a potent predictor of effective change. When dealing with leadership styles per se, it is suggested that the focus be shifted away from TfL, and that more attention be given to transactional forms of leader behaviour as, in this study, TsL demonstrated its relative strength in influencing the PCB-EV link.

From a practical perspective, the findings of this study will assist managers to better understand the salience of maintaining positive social exchange relationships with their employees. In addition, it has now become evident that some leadership styles are particularly useful in buffering the negative effects of psychological contract breaches on prohibitive forms of employee voice. The endeavours of leaders in engaging employees in discretionary behaviours – particularly when they are expected to voice creative ideas and suggestions towards organisational improvements – will be more successful under an empowering form of leadership.

CHAPTER 9: SUMMARY, INTEGRATION, CONTRIBUTION, LIMITATIONS, AND RECOMMENDATIONS

In this chapter, a summary of the thesis to this point will be provided, as well as an integration of the findings in the different stages of the research project. This encompasses a comprehensive model linking PC, PCB, EV with IWB, and how LS influences these relationships. This represents the central contribution of the study. After discussing the limitations of the study, recommendations will be volunteered. The chapter will conclude with a report on the attainment of the research objectives. Apart from integrating the results from the previous chapters, this chapter demonstrates that all the objectives of the research were achieved.

9.1 Summary

The aim of the study was to empirically determine how different leadership styles affect employee voice and innovation under conditions of PCB, and how these variables relate to each other. This aim was achieved according to a stepwise process, starting with Chapter 1, in which the research process is explained, and where a summary of the methods used is discussed. The following chapters each address part of the aim and are presented in the form of articles. The findings of those articles are summarised in the paragraphs below.

<u>Article 1: Conceptualisation of psychological contract: Definitions, typologies</u>
 <u>and measurement</u>

Present literature on psychological contracts is fragmented in many respects – this through being conceptualised in different ways across various studies – and thus poses a challenge to researchers and practitioners, as no conceptual standardisation exists. After reviewing reputable sources published between the years 1960 and 2020, a standard definition of the psychological contract is proposed, the most recognised typologies specified, and broad and sound measures identified. It was found that Rousseau's (1995) definition and typologies (transactional and relational contracts) are still widely used, and that the measuring scale for transactional and relational contracts by Millward and Hopkins (1998) demonstrates good psychometric properties and forms the basis for many research projects.

 Article 2: Psychological contract breach and innovative work behaviour: <u>Systematic literature review</u>

A systematic literature review methodology was followed to gather data, which were analysed focusing on broad adoption, theoretical coherency and, in the case of measurement, psychometric properties. In total, 14 articles were retrieved that measured the direct PCB-IWB link. PCB is most often defined and measured in terms of Robinson and Morrison's (2000) and Robinson and Rousseau's (1994) conceptualisations, while Janssen's (2000) framework is applied to IWB. Reliability information is reported for these measures. While many definitions and measures of the constructs are used, some are theoretically more comprehensive, while some are applied more often than others, and these are now specified.

<u>Article 3: Conceptualisation of employee voice: Definitions, typologies and</u>
 <u>measurement</u>

This article aimed to present a review on the conceptualisation of voice, with the focus on the different ways in which the concept is defined, categorised and measured. Such a focus is required as a comprehensive and contemporary operationalisation of voice, which will ensure that future research is linked to the dominant body of knowledge. Subsequent to a review of a substantial number of the articles published in peer-reviewed journals between the years 1970 and 2019, the three most popular definitions of voice are presented, the three most common conceptualisations on the forms/types of voice identified, and the three most used measuring scales with acceptable reliability and validity acknowledged. Building on previous research, and considering recent publications, the comprehensive conceptualisation of voice is best described by the seminal work of Maynes and Podsakoff (2014), which integrates the extant knowledge on the topic and how it is operationalised. Their definition, typologies, and measuring instrument seems to be the standard in voice research. Maynes and Podsakoff's theorising on all three aspects is well accepted and forms the basis for many recent studies on voice.

 <u>Article 4: The effects of psychological contracts, and the breach thereof, on</u> <u>innovative work behaviour</u> The goal of this article was to empirically determine how PCB affects the relationship between different PCs (relational and transactional) and IWB. Data were collected from 620 employees representing 11 South African organisations. The instruments showed acceptable psychometric characteristics. Three findings were dominant: Transactional PC did not correlate with IWB, while relational PC did so in a significant way; PCB correlated positively and significantly with transactional PC, and negatively and significantly with relational PC, but not with IWB; PCB did not moderate the relationship between relational PC and IWB. It was evident that PC type (relational PC) has a direct effect on IWB, but PCB did not relate significantly with IWB. As PCB is known to affect discretionary behaviour, the lastmentioned result was surprising. Outside of the set hypotheses, it was found that PCB correlated positively and significantly with transactional PC, and negatively and significantly with relational PC. This suggests that, in transactional environments, PCBs are experienced more often, whereas perceptions of breach within relational environments are reported less often.

Article 5: Psychological contract and employee voice: Does breach matter? This study aimed to empirically determine how different types of PC are linked to different types of EV, and also, how PCBs affect these relationships. The paucity of literature on the relationship between the three variables necessitated this research. Relational PC correlates with promotive dimensions of EV, and similarly, though to a lesser extent, with prohibitive voice. Transactional PC and PCB, meanwhile, correlated with prohibitive dimensions of EV. The PC-EV relationship was moderated by PCB only in a transactional PC environment, and only for the prohibitive EV dimension. This could be explained by considering that, where interpersonal relations exist with higher levels of RPC, and where non-monetizable issues are at play, PCB does not affect EV in a significant way. However, in the presence of strong transactional relations, where TPC levels are high, and where monetizable matters are a concern, PCB has a substantial effect on the prohibitive voices, and this occurs to a large extent. It is interesting to note the nature of moderation. The interaction effect was negative, which may suggest that when TPCs are

breached, employees will be less willing to express their voices and may choose silence.

<u>Article 6: Employee voice and innovative work behaviour: Empirical evidence</u>
 <u>from South Africa</u>

This research aimed to empirically determine how different dimensions of EV are linked to IWB, and also to assess the relative importance of EV, compared to other two predictors of IWB, namely leadership styles and climate for innovation (CfI). Supportive voice, and particularly constructive voice, positively correlated with IWB, while defensive and destructive voices had no effect on IWB. The model in which EV was used to predict IWB was superior to models that included leadership styles as well as CfI. These findings suggest that EV can contribute positively to IWB, depending on the type of EV expressed. In addition, EV, more than leadership styles and CfI, predicts IWB.

 Article 7: Employee voice as a behavioural response to psychological contract breach: Moderating effect of leadership style

Leaning on the social exchange and psychological contract theories, this research introduced the leadership style as the mechanism that may differentially buffer or exacerbate the effects of PCB on EV. With its aim to empirically determine how PCBs are linked to different types of EV, and also, how different leadership styles affect these relationships, this research reported the findings that follow. Firstly, PCB correlates negatively with promotive types of EV, and positively with prohibitive types of EV. Secondly, leadership styles were a weaker predictor of EV than PCB. Finally, the PCB-EV relationship was, in most cases, partially moderated by leadership styles.

The findings uncovered in these individual articles provide valuable insights into understanding the complexity of PC, PCB, EV, IWB and LS relationships and require further integration. An integrated summary of the results, incorporating all the findings from the articles, is provided below.

Integrated model of antecedents to IWB

The individual findings can be placed in perspective, given the comprehensive model as presented in Chapter 1 as Figure 1 and presented here again as Figure 3.

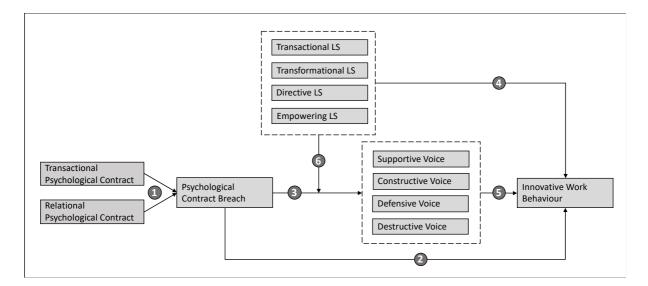


Figure 3: Conceptual framework (Source: Author)

Prior to commencing with the empirical investigations on the relationships between IWB and its antecedents, extensive foundational work was done in the form of literature reviews, as reported on within the first three articles. Reporting on the clear conceptualisation of PC, PCB, EV and IWB constructs with their most recognised typologies and respected measuring instruments resulted in individual articles 1, 2 and 3. This conceptual work laid the foundation for empirical investigations across the next four articles, from 4 to 7, which collectively report on the acceptable psychometric properties of the selected measuring instruments for each construct. What was lacking in this conceptualisation is the relative weighting of the different antecedents, information on what the main drivers of IWB were, and specifically, an explanation of how LS, which can be adjusted, would influence these relationships.

This research confirmed earlier findings on the PC-IWB links, specifically, a negative relationship between TPC and IWB (Suh, 2002; Thompson & Heron, 2006) and a positive one between RPC and IWB (Chang et al., 2013; M. Thompson & Heron, 2006). Although in this study, the negative correlation between TPC and IWB is in line with previous research, its effect was statistically non-significant, which also confirmed findings of the earlier investigations (Aggarwal & Bhargava, 2010). A surprising counter-intuitive finding in this study pertains to the relationship between PCB and IWB. Contrary to the existing evidence for the negative and statistically significant PCB-IWB link (Li et al., 2014; Vander Elst et al., 2016), it was found in this study that PCB had no effect on the innovative behaviour.

Outside of the original scope of this research, it also transpired that TPC correlated positively with PCB, while RPC correlated negatively with PCB. This leads to the conclusion that, under conditions of TPC, PCBs are experienced more often. The proposed explanation agrees with Zhao et al. (2007) who stated that, when employers fail to deliver on their explicit obligations, the PCB will result in immediate and extreme reactions from employees. The negative relationship between RPC and PCB suggests that, in situations where RPCs are observed, PCBs are experienced less often. This conclusion is in line with the assumption that employees often attribute the breach of the relational content of the PC to a miscommunication or bad luck, rather than to a deliberate breach on the part of the employer (Robinson & Morrison, 1995).

Rather surprisingly, this investigation illuminated the fact that no single leadership style was omni-influential. Nevertheless, it was found that TsL had the most profound buffering effect on the PCB-EV links, for both defensive and destructive forms of voice. Furthermore, although the effect on constructive voice within a transactional environment was the opposite, TsL lessened the intensity of CV. This means that, within the transactional environments, when breaches happen, dealing with consequences of breach in an explicit manner will decrease prohibitive voices, but not necessarily increase promotive ones. Similar to the buffering effect of TsL on the PCB-EV link noted above, EL also had a buffering effect on the PCB-EV link. This showed that, under transactional breaches, the empowering leader will lessen the expression of employees' destructive voice. These particular findings are novel, as literature is scant on investigations of the effects of various leadership styles on multiple forms of employee voice.

Given these findings, Figure 3 can now be redrawn, and it is presented here as Figure 4.

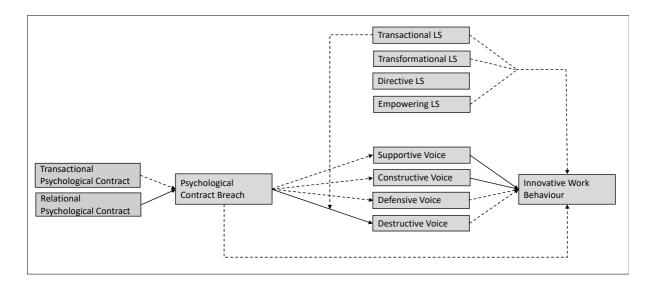


Figure 4: Final conceptual framework (Source: Author). The statistically significant relationships between variables are indicated with dotted lines (p < .05). The practical significant relationships between variables are indicated with solid lines (r > .30).

Figure 4 provides a comprehensive integration of the results of this study. It is evident that the importance of employee voice, particularly its promotive forms, in predicting IWB outweighs the effects of LS on IWB. This makes a valuable contribution to understanding the complexities of the relationships between variables. The contribution of the study is discussed in the section below.

9.2 Contribution of the study

This research made a number of contributions.

Firstly, this study attempted to solve the research problem, namely, that managers are unclear as to how to lead and apply themselves in environments typified by PCBs and where innovation is necessary. Given the paucity of the literature, researchers and academics are ill-equipped to advise managers as to how this dilemma could be resolved. The literature provides extensive evidence that, when employees experience stress in their work environments, such as often stems from PCBs, they may withhold their discretionary efforts and extra-role behaviours, such as voice and innovation (Ng et al., 2010). However, achievement of employees behaving innovatively is an important managerial task (Bos-Nehles et al., 2017). There is no evidence of any studies that have attempted to investigate the issue of leading towards voice and innovation under conditions of PCB. The main contribution of this study is that it provided evidence that leadership style is not necessarily the first-choice

remedy. As it turned out, there are more powerful factors involved in solving this research problem. One of these is the quality of the relationships between employers (with managers and supervisors as agents) and employees. Social exchange relationships, in the form of PCs, are fertile grounds for fostering discretionary actions of employees (Rousseau, 2004). In addition, the level of fulfilment of PCs by managers is a salient condition for activating the right employee voice, which leads to innovation. Practically, we saw that, particularly, constructive voice is the most powerful antecedent to innovation.

The second contribution pertains to the development of the conceptual Model, in which complex relationships between multidimensional constructs were explored. These relationships consisted of two types of PC (transactional and relational), two types of PCB (transactional and relational), four dimensions of EV (supportive, constructive, defensive and destructive) and four leadership styles (transactional, transformational, directive, and empowering). To the knowledge of the researcher, conceptually and theoretically, as well as methodologically, the relationships between these variables had not been investigated previously, and the set hypotheses had not been previously tested together, within one study.

Finally, the data for all tested models were collected from the same sample and analyses were done using the same measuring instruments. The similarity in the sourced data made it possible to compare as well as to combine models, which was essential to this study. When, for example, the links between leadership styles and innovation, organisational climate and innovation, and voice and innovation were tested, the same innovation construct was employed in each instance, along with the same measuring instrument, thus allowing for consistency in the results.

In terms of the overall findings, this study shed more light than initially expected on the questions that the research aimed to answer. In brief, this additional information can be summarised as follows:

- According to the results, PCB does not lead to substantial changes in IWB. The relationship between breach and innovation was found to be very small.
- When EV was investigated as an antecedent of innovation, it was found that one particular type of voice, namely constructive voice, acted as a profound driver of innovation.

- Next, this research provided strong evidence that PCB influenced EV, particularly its prohibitive forms, namely DfV and DsV, but not the promotive, particularly, CV – the most critical in predicting IWB.
- Although leadership was found to influence the relationship between PCB and EV, it was not, however, shown to influence CV – the dimension of voice that would be beneficial in activating innovation.
- Finally, in comparing the relative strength of EV and LS as predictors for IWB, it appeared that LS acted as a less dominant predictor of IWB. The strongest predictor for innovation was EV, specifically, its constructive dimension.

9.3 Limitations

As is the case with any empirical study, this research was constrained by a number of limitations. These were initially specified in the delineation section of the thesis in Chapter 1. These limitations are mentioned here again so as to provide direction for future researchers who may choose to employ different approaches and, in so doing, improve on this study.

The first limitation is that not all variables related to the dependent variables (IWB and EV) and independent variables (PC, PCB and leadership styles) were included in the research. For example, innovation or an expression of employee voice could be dependent on personality traits or individual characteristics, such as proactivity, that were not assessed in this study.

This study used a single source, single method approach. As self-report data in a form of self-reported perceptions were collected from employees of organisations, gaining information from managers as an additional source could be useful. Also, using interviews as an alternative source of data could be valid in establishing the links between variables.

The next limitation pertains to the researcher having limited the literature search to full-text articles in peer-reviewed and scholarly journals. These were retrieved from the four most popular and comprehensive academic databases in Business Management (EBSCOhost, Google Scholar, ProQuest and Sabinet). However, the fact that only these databases were searched could have resulted in pertinent literature being excluded from the search. Extending the search to other sources, such

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as conference papers and dissertations, could have yielded valuable and relevant information for this research study.

This study followed a cross-sectional design, which intends to describe the relationship between the variables. Using a longitudinal design, as suggested by Ployhart and Vandenberg (2010), would potentially add considerable value in investigating how changes in one variable (for example, in perceptions of PCB) relate to changes in other constructs, such as EV and IWB.

A final concern in this study relates to a common method bias (CMB), where the estimated relationship between constructs is inflated due to systematic covariation created by response patterns to questionaries (Rodríguez-Ardura & Meseguer-Artola, 2020). At an ex-ante level, CMB was managed by making sure that the complete questionnaire provided to respondents was relatively short (Podsakoff et al., 2012) and was thus limited to 84 questions. Further, effort was made to select questions that were clearly and unambiguously worded (Podsakoff et al., 2003) so as to reduce the risk of CMB. The format of questions within the questionnaire differed from section to section, which counteracted similarity in response patterns (Podsakoff et al., 2012). As further ex-ante CMB management strategies, actual responses were solicited by asking respondents to answer all questions honestly, and by notifying the respondents in the informed consent form, that their anonymity (Steenkamp et al., 2010) would be safeguarded and that the research would have no direct impact on their lives (Steenkamp et al., 2010). These applied measures seemed to moderate possible CMB, as demonstrated in ex-post-tests. The Harman's single-factor test, which is widely used as a statistical tool that detects CMB (Fuller et al., 2016), revealed that factor 1 declared only 21.9% of the variance in the dataset, which is significant and is less than the rule-of-thumb of 50% (Fuller et al., 2016). Also, when considering the correlations between the constructs, all correlations were below the rule-of-thumb score, where correlations higher than .90 are a clear sign of CMB (Bagozzi, 1984; Bagozzi et al., 1991). The highest correlation (r = .766) was between TfL and TsL. The next highest correlation was .696, between TfL and EL. The average correlation between constructs was .208, with a standard deviation of .059. These results suggest that statistical CMB indicators in this study were below the thresholds, and it was concluded that CMB was not a concern in this investigation.

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9.4 Recommendations

Based on the research findings, a number of recommendations can be put forward to academics as well as business practitioners.

To academics, this research offers a comprehensive model predicting IWB. The model provides the foundation for further research on this matter. From this research, it became apparent that PCB is not a dominant predictor of IWB, and that this may be excluded from further studies. Academics are, however, now informed that EV, more than LS, and more than PCB, is a dominant predictor of IWB. It is therefore suggested that models that aim at predicting IWB include EV construct, and models with other variables that may facilitate EV and IWB, be included in future research.

Secondly, researchers are advised to expand on the limitations of this study. The focus of this research was limited to employees' perceptions and behaviour, but it did not explore other possible influencing factors, such as personality traits of employees. Studying personality traits as a possible moderator could have shed light on the PCB-IWB link, which in this study was found to be non-significant. Alternatively, PCB could have led to innovation when proactive personalities or individuals with an internal locus of control were identified.

In terms of recommendations relevant to managers and business practitioners, many things can be done in order to foster their subordinates' voice and innovative behaviour. First and foremost, managers should maintain positive social exchange relationships with their employees. As the results show, regardless of the type of PC, managers should avoid breaching the contracts and endeavour to fulfil their promises and obligations to employees. Secondly, managers are advised to develop relational ties with employees, as these lead to higher levels of discretionary behaviours. The next suggestion is to create psychologically safe environments where employees will feel safe to speak up, and most importantly, when they do speak up, where employees' voices will be heard. Although this research found evidence of related importance of relational contracts in fostering EV and IWB, in the prevailing transactional environments, managers are advised to follow the "rulebook" – the fulfilment of explicit agreements. Finally, this study found no evidence of leadership style being a solution for enhancing promotive dimensions of EV – however, the results lead to a recommendation that applying transactional, transformational, and empowering

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leadership styles could buffer the levels of undesirable, prohibitive forms of employee voice behaviour.

9.5 Attainment of research objectives

This study aimed to reach a combination of conceptual and empirical objectives:

Objective 1. <u>To critically analyse literature related to the nature as well as the measurement of all constructs examined in this study</u>. Meeting this objective allowed for the selection of the reliable and valid instruments that were used in the study. Chapters 2, 3, and 4 collectively comprised conceptual literature reviews. These chapters represent three individual articles, each dedicated to the goal of providing a critical review of the literature on how each construct is conceptualised, that is, how it is defined, taxonomised and operationalised. In Chapter 2, the focus was on psychological contract. In Chapter 3, the focus was on psychological contract breach and innovative work behaviour. In Chapter 4, the focus was on employee voice. Chapter 8, meanwhile, provided the rationale behind the selection of instruments for measuring transactional, transformational, directive, and empowering leadership styles.

Objective 2. <u>To report and critically assess published empirical results pertaining to</u> <u>the relationships between variables, particularly those specified in the conceptual</u> <u>model</u>. This objective was attained by the development of a theory-based conceptual model of the study.

Four empirical articles, which form the bases of Chapters 5 – 8, each provide the literature reviews specifically pertaining to empirical findings on the relationships between the variables studied in this research. The literature reviews in these chapters focused on reporting the empirical findings on the links between relevant variables. Chapter 5 reports on the links between psychological contracts, psychological contract breach, and innovative work behaviour (see 1 and 2 in Figure 1). In Chapter 6, the focus is on identifying the existing evidence on the links between employee voice, innovative work behaviour, and psychological contract breach (see 3 and 2 in Figure 1). Chapter 7 focuses on the links between employee voice, leadership, and innovative work behaviour (see 5 and 4 in Figure 1), while Chapter 8 considers the links between psychological contract breach in Figure 1).

Objective 3. <u>To collect data that is representative of the South African working</u> <u>population on the mentioned variables.</u> Meeting this objective was necessary as it would allow for the empirical testing of hypotheses relating to the conceptual model. Chapter 1 provides a detailed description of the sampling and data collection. In Chapters 5 to 8, shortened versions of the data collection process were presented. Overall, the respondents who participated in the study (N = 620) represented the sample population adequately in terms of their sex and race, resembling the numbers reported by StatsSA (Statistics South Africa, 2020).

Objective 4. <u>To test the reliability and validity of the data collected.</u> Reporting on acceptable results for reliability and validity of data would ensure confidence in testing the set hypotheses. Chapter 1 outlines the selection of measuring instruments, which formed a basis for this study's questionnaire. In the empirical articles, the relevant instruments are described and reliability and validity specifics for each are provided. The reliability scores for all instruments used in the research were in line with the recommendations of Pallant (2013), all reporting a Cronbach's alpha coefficient of above .700, which is an acceptable score. Similarly, the structural validity of the instruments used in this study was tested and found satisfactory, which is aligned to Pallant's (2013) guidelines.

Objective 5. <u>To test hypotheses relating to the interrelationships within the framework</u>. In testing the conceptual model, it was possible to determine the relative importance of specific leadership styles in facilitating employee voice and innovation under conditions of PCB. Empirical Chapters 5, 6, 7, and 8 each aimed to test relevant sets of sub-hypotheses, and to analyse the relationships between variables.

Objective 6. <u>To report on and to make recommendations pertaining to the theory and practice within organisations</u>. In order to allow for dissemination of the research findings, all seven chapters, from 2 to 8, address the contribution to theory and discuss the managerial implications pertaining to a specific research question. The integrated summary of recommendations is provided in this chapter.

This concluded the study.

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ANNEXURE A: RESEARCH QUESTIONNAIRE

Research Questionnaire (84 items)

	Description of data			
А	Gender:	Male (1) / Female (2)	1	2
В	Your role:	Core Business (1) / Support services (2)	1	2
С	Age:	years	N/	A
D	Number of years with company:	years	N/A	
E	Years of formal schooling:	Less than 12 years (1) 12 years (matric) (2)	1	2
		1st Degree / Diploma (3) Higher degree / Higher diploma (4)	3	4
F	F Race: Asian (1) / Black (2) / Coloured (3) / White (4)		1	2
			3	4

Please complete general biographical information about yourself.

G	Description of post level	Indicate with an X
	Top management, <u>senior management</u> (5)	5
	Professionally qualified, experienced specialists and <u>middle</u> <u>management</u> (4)	4
	Skilled technical and academically qualified workers, junior <u>management</u> , supervisors, foremen and superintendents (3)	3
	Semi-skilled and discretionary decision making (2)	2
	Unskilled and defined decision making (1)	1

Please indicate the extent to which you <u>agree</u> or <u>disagree</u> with the following statements.

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree noi Disagree	Slightly Agree	Moderately Agree	Strongly Agree
1. I come to work purely to get the job done.	01	O2	O3	O4	O5	O6	07
2. I intend to stay in this job only for a short while (e.g., less than 2-3 years)	O1	O2	O3	O4	O5	O6	07
3. I only carry out what is necessary to get the job done.	O1	O2	O3	O4	O5	O6	07
4. I work to achieve the purely short-term goals of my job.	O1	O2	O3	O4	O5	O6	07
5. My commitment to this organisation is defined by my contract.	O1	O2	O3	O4	O5	O6	07
6. I expect to gain promotion in this company with length of service and effort to achieve goals.	O1	O2	O3	O4	O5	O6	07
7. I expect to grow in this organisation.	O1	O2	O3	O4	O5	O6	07
8. I feel this company reciprocates the effort put in by its employees.	O1	O2	O3	O4	O5	O6	07
 The organisation develops / rewards employees who work hard and exert themselves. 	O1	O2	O3	O4	O5	O6	07
10. I have a reasonable chance of promotion if I work hard.	O1	O2	O3	O4	O5	O6	07

Please indicate the extent to which you <u>agree</u> or <u>disagree</u> with the following statements.

	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree
11. I feel a great deal of anger toward my organisation.	O1	O2	O3	O4	O5
12. I feel betrayed by my organisation.	O1	O2	O3	O4	O5
13. I feel that my organisation has violated the contract between us.	O1	O2	O3	O4	O5
14. I feel extremely frustrated by how I have been treated by my organisation.	O1	O2	O3	O4	O5
15. Almost all the promises made by my employer during recruitment have been broken.	O1	O2	O3	O4	O5
16. I feel that my employer does not come through in fulfilling the promises made to me when I was hired.	O1	O2	O3	O4	O5
17. So far, my employer has made no efforts in fulfilling its promises to me.	O1	O2	O3	O4	O5
18. I have not received everything promised to me in exchange for my contributions.	01	O2	O3	O4	O5
19. My employer has broken many of its promises to me even though I've upheld my side of the deal.	O1	O2	O3	O4	O5

Please indicate the extent to which you <u>agree</u> or <u>disagree</u> with the statements.

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree
20. I defend organisational programs that are worthwhile when others unfairly criticise the programs.	O1	O2	O3	O4	O5	O6	07
21. I express support for productive work procedures when others express uncalled for criticisms of the procedures.	O1	O2	O3	O4	O5	O6	07
22. I speak up in support of organisational policies that have merit when others raise unjustified concerns about the policies.	01	O2	O3	O4	O5	O6	07
23. I defend useful organisational policies when other employees unfairly criticise the policies.	01	02	O3	04	O5	O6	07
24. I defend effective work methods when others express invalid criticisms of the methods.	01	O2	O3	O4	O5	O6	07
25. I frequently make suggestions about how to do things in new or more effective ways at work.	01	02	O3	O4	O5	O6	07
26. I often suggest changes to work projects in order to make them better.	01	O2	O3	O4	O5	O6	07
27. I often speak up with recommendations about how to fix work-related problems.	01	O2	O3	04	O5	O6	07
28. I frequently make suggestions about how to improve work methods or practices.	01	02	O3	O4	O5	O6	07
29. I regularly propose ideas for new or more effective work methods.	01	02	O3	O4	O5	O6	07
30. I stubbornly argue against changing work methods, even when the proposed changes have merit?	01	02	O3	04	O5	O6	07
31. I speak out against changing work policies, even when making changes would be for the best?	01	02	O3	04	O5	O6	07
32. I vocally oppose changing how things are done, even when changing is inevitable?	01	02	O3	O4	O5	O6	07
33. I rigidly argue against changing work procedures, even when implementing the changes makes sense?	01	02	O3	04	O5	O6	07
34. I vocally argue against changing work practices, even when making the changes is necessary?	01	02	O3	04	O5	O6	07
35. I often bad-mouth the organisation's policies or objectives?	01	02	O3	04	O5	06	07
36. I often make insulting comments about work-related programs or initiatives?37. I frequently make overly critical comments regarding	01	02	03	04	O5	06	07
how things are done in the organisation? 38. I often make overly critical comments about the	01	02	03	04	O5	06	07
organisation's work practices or methods? 39. I harshly criticise the organisation's policies, even	01	02	03	04	O5	06	07
though the criticism is unfounded?	01	02	O3	04	O5	O6	07

Please indicate <u>how often</u> the following statements occur in your current job.

	Never	Almost never	Sometimes	Fairly Often	Very often	Always
40. In your current job, how often do you look for opportunities to improve an existing process, technology, product, service or work relationship?	O1	O2	O3	O4	O5	O6
41. In your current job, how often do you recognise opportunities to make a positive difference in your work, department, organisation or with customers?	O1	O2	O3	O4	O5	O6
42. In your current job, how often do you pay attention to non-routine issues in your work, department, organisation or the market place?	01	02	O3	04	O5	O6
43. In your current job, how often do you generate ideas or solutions to address problems?	01	O2	O3	O4	O5	O6
44. In your current job, how often do you define problems more broadly in order to gain insight into them?	01	02	O3	04	O5	O6
45. In your current job, how often do you experiment with new ideas and solutions?	01	O2	O3	04	O5	O6
46. In your current job, how often do you test-out ideas or solutions to address unmet needs?	01	O2	O3	04	O5	O6
47. In your current job, how often do you evaluate the strengths and weaknesses of new ideas?	01	O2	O3	04	O5	O6
48. In your current job, how often do you try to persuade others of the importance of a new idea or solution?	01	O2	O3	04	O5	O6
49. In your current job, how often do you push ideas forward so that they have a chance to become implemented?	01	02	O3	04	O5	O6
50. In your current job, how often do you take the risk to support new ideas?	01	02	O3	04	O5	O6
51. In your current job, how often do you implement changes that seem to be beneficial?	01	O2	O3	04	O5	O6
52. In your current job, how often do you work the bugs out of new approaches when applying them to an existing process, technology, product or service?	O1	O2	O3	O4	O5	O6
53. In your current job, how often do you incorporate new ideas for improving an existing process, technology, product or service into daily routines?	O1	O2	O3	O4	O5	O6

Please indicate the extent to which you <u>agree</u> or <u>disagree</u> with the following statements.

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree
54. My leader always gives me positive feedback when I perform well.	O1	O2	O3	O4	O5	O6	07
55. My leader gives me special recognition when my work is very good.	O1	02	O3	04	O5	O6	07
56. My leader commends me when I do a better than average job.	O1	O2	O3	O4	O5	O6	07
57. My leader personally compliments me when I do outstanding work.	O1	O2	O3	O4	O5	O6	07
58. My leader frequently acknowledges my good performance.	O1	O2	O3	O4	O5	O6	07
59. My leader inspires others with his/her plans for the future.	O1	02	O3	O4	O5	O6	07
60. My leader leads by example.	O1	O2	O3	O4	O5	O6	07
61. My leader develops a team attitude and spirit among employees.	O1	02	O3	04	O5	O6	07
62. My leader insists on only the best performance.	O1	O2	O3	O4	O5	O6	07
63. My leader shows respect for my personal feelings.	O1	O2	O3	O4	O5	O6	07
64. My leader has stimulated me to rethink the way I do things.	O1	O2	O3	O4	O5	O6	07

	Definitely not true	Not true	Neither true or untrue	True	Definitely true
65. My team leader establishes my	01	O2	O3	O4	O5
performance goals.					
66. My team leader sets the goals for my	01	O2	O3	04	O5
performance.					
67. My team leader establishes the goals for	01	O2	O3	O4	O5
my work.					
68. When it comes to my work, my team	01	O2	O3	O4	O5
leader gives me instructions on how to carry it					
out.					
69. My team leader gives me instructions	01	O2	O3	O4	O5
about how to do my work.					
70. My team leader provides commands in	01	O2	O3	O4	O5
regard to my work.					

Please indicate the extent to which the following statements are true for you.

Please indicate how often the following statements occur in your current job.

	Not at All	Sometimes	Not sure	Often	To a very great extent
71. My manager conveys clear expectations for assignments.	O1	O2	O3	O4	O5
72. My manager provides clear direction and defines priorities for the team.	O1	O2	O3	O4	O5
73. My manager clarifies roles and responsibilities with team members.	O1	O2	O3	O4	O5
74. My manager identifies specific action steps and accountabilities.	O1	O2	O3	O4	O5

Please indicate the extent to which you <u>agree</u> or <u>disagree</u> with the following statements.

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Moderately Agree	Strongly Agree
75. My manager helps me understand the importance of my work to the overall effectiveness of the company.	O1	O2	O3	O4	O4	O6	07
76. My manager helps me understand how my job fits into "the bigger picture."	O1	O2	O3	O4	04	O6	07
77. My manager helps me understand how my objectives and goals relate to that of the Company.	O1	O2	O3	O4	O4	O6	07
78. My manager often consults me on strategic decisions.	O1	O2	O3	O4	O4	O6	07
79. My manager makes many decisions together with me.	O1	O2	O3	O4	O4	O6	07
80. My manager believes that I can handle demanding tasks.	O1	O2	O3	O4	O4	O6	07
81. My manager believes in my ability to improve even when I make mistakes.	O1	O2	O3	O4	O4	O6	07
82. My manager makes it more efficient for me to do my job by keeping the rules and regulations simple.	O1	O2	O3	O4	O4	O6	07
83. My manager allows me to do my job my way.84. My manager allows me to make important decisions quickly to satisfy customer needs.	01 01	O2 O2	O3 O3	O4 O4	04 04	O6 O6	07 07