



L'échange social dans les relations au travail

Trois études sur les comportements citoyens des employés

Thèse

Nicolas Raineri

Doctorat en sciences de l'administration
Philosophiae Doctor (Ph. D.)

Québec, Canada

© Nicolas Raineri, 2015

Résumé

Cette thèse par articles étudie les comportements citoyens des employés à l'aune de la théorie de l'échange social. Deux domaines de recherche contemporains, émergents et sous-exploités ont été identifiés : celui des études sur les différences intergénérationnelles, et celui des études sur l'écologisation des entreprises.

Le premier article examine si l'appartenance à un groupe générationnel, celui des baby-boomers versus celui de la génération X, influence les relations entre le soutien perçu de l'organisation et des collègues, l'engagement envers l'organisation et les collègues, et les comportements de citoyenneté organisationnelle. Bien que les membres de la génération X semblent moins disposés à échanger des attitudes et comportements positifs en retour du soutien de leur employeur, les résultats indiquent qu'il existe davantage d'affinités que de différences entre les deux cohortes.

Le deuxième article étudie l'interaction de facteurs individuel (i.e., les croyances environnementales personnelles) et organisationnels (i.e., le soutien perçu de l'organisation et du superviseur envers l'environnement naturel), sur l'engagement environnemental et les comportements d'éco-citoyenneté organisationnelle des employés. Les résultats valident la plupart de nos hypothèses mais indiquent qu'il n'y a pas d'effet de synergie entre les déterminants individuel et organisationnels. Au contraire, notre étude montre que la politique environnementale d'une entreprise semble plus susceptible d'avoir un écho sur les employés possédant des croyances environnementales personnelles faibles.

Le troisième article examine l'influence d'échanges sociaux multiples au travail (les relations respectives entre le soutien perçu de l'organisation, du superviseur, et des collègues, et l'engagement envers l'organisation, le superviseur, et les collègues) sur les initiatives éco-citoyennes des employés. Les résultats indiquent que les éco-initiatives sont davantage influencées par les relations avec les collègues de travail, tandis que les relations avec l'organisation et le superviseur jouent un rôle indirect.

Les implications théoriques et managériales de chaque article sont discutées.

Table des matières

Résumé.....	iii
Table des matières	v
Dédicace.....	ix
Remerciements.....	xi
Avant-propos	xiii
Introduction.....	1
1.1 La théorie de l'échange social : fondements théoriques	3
Figure 1: Échange sociaux multiples en milieu organisationnel	8
1.2 Les rouages de l'échange social : soutien perçu, engagement et comportements citoyens des employés.....	9
1.2.1 La perception de soutien en milieu organisationnel	9
1.2.2 L'engagement et les comportements citoyens des employés	11
1.3 Questions de recherche et objectifs de la thèse.....	14
1.3.1 Existe-t-il un déclin générationnel des échanges sociaux au travail ?	15
1.3.2 Dans quelle mesure les préceptes de la théorie de l'échange social expliquent-ils les comportements d'éco-citoyenneté organisationnelle des employés?	16
1.4 Méthodologie et cadre opératoire	19
1.4.1 Échantillonnage.....	19
1.4.2 Collecte des données	20
1.4.3 Mesure des comportements de citoyenneté organisationnelle	21
1.4.4 Modélisation par équations structurelles.....	22
Références – Introduction.....	24
Chapitre/Article 1. Organizational citizenship behavior: An intergenerational study.....	33
2.1 Abstract.....	33
2.2 Introduction.....	35
Figure 1: Research model	36
2.3 Theoretical background.....	37

2.3.1 Social exchange theory	37
2.3.2 The generation concept	38
2.4 Research hypotheses	41
2.4.1 Perceived support and employee commitment	41
2.4.2 Organizational citizenship behavior	43
2.5 Method	45
2.5.1 Participants	45
2.5.2 Measurement	45
2.5.3 Data analysis	47
2.6 Results	48
2.6.1 Preliminary analyses	48
Table 1: Reliability and convergent validity of the scales	49
Table 2: Mean, standard deviation and discriminant validity of the scales	50
2.6.2 Multi-sample invariance analysis	50
Table 3: Fit indices and results of invariance tests	52
Figure 2: Standardized path estimates of the research model for both sub-samples	53
2.7 Discussion	54
2.7.1 Contribution of the study	54
2.7.2 Limitations and future research	55
References – Article 1	57
Chapitre/Article 2. Linking corporate policy and supervisory support with environmental citizenship behaviors: The role of employee environmental beliefs and commitment	
3.1 Abstract	65
3.2 Introduction	67
Figure 1: Research model	70
3.3 Background and research hypotheses	70
3.3.1 The mediating role of employee environmental commitment	74
3.3.2 The moderating role of personal environmental beliefs	80
3.4 Method	82
3.4.1 Participants	82
3.4.2 Endogenous variables	83

3.4.3 Exogenous variables.....	84
3.4.4 Control variables	85
3.4.5 Data analysis.....	86
Table 1: Summary statistics and zero-order correlations.....	87
3.5 Results.....	88
3.5.1 Measurement model	88
3.5.2 Hypothesis testing	89
Figure 2: Standardized path estimates of the research model.....	89
Table 2: Standardized parameter estimates with and without control variables.....	90
Table 3: Standardized parameter estimates for both levels of the moderator.....	92
3.6 Discussion.....	93
3.6.1 Contribution of the study.....	93
3.6.2 Limitations and future research.....	98
Appendix – Article 2.....	100
References – Article 2.....	101
Chapitre/Article 3. The influence of workplace social exchanges on employee eco-citizenship initiatives	111
4.1 Abstract.....	111
4.2 Introduction.....	113
4.3 Theoretical background.....	115
4.3.1 Taking eco-initiatives	115
4.3.2 A social exchange view on eco-initiatives in the workplace.....	117
Figure 1: Hypothesized structural model.....	119
4.4 Research hypotheses	119
4.5 Method	124
4.5.1 Participants	124
4.5.2 Measurement	124
4.5.3 Data analysis.....	125
4.6 Results.....	126
4.6.1 Measurement model	126
Table 1: Results of model comparisons.....	127

Table 2: Correlation matrix and psychometric properties.....	128
Table 3: Shared variance, average variance extracted, and Jöreskog' ρ	129
4.6.2 Hypotheses testing	129
Table 4: Bootstrap analysis of the standardized total, direct and indirect effects	131
Figure 2: Standardized path estimates of the research model	132
4.7 Discussion	132
4.7.1 Contribution of the study	132
4.7.2 Limitations and future research	134
Appendix – Article 3	136
References – Article 3	138
Conclusion.....	145
Tableau 1: Récapitulatif et vue d'ensemble des articles de la thèse	148
Références – Conclusion	155

*À Celine,
et à notre fille Elise.*

Remerciements

Le doctorat est une expérience de vie à part entière. Ces cinq dernières années se sont révélées riches d'enseignement, de joie, de doutes, de succès et de quelques revers. Grâce à mon directeur de thèse, ma famille, et toutes les personnes qui m'ont soutenu dans cette aventure, j'ai accompli bien davantage que j'eusse espéré. Je tiens à remercier tous ceux qui m'ont accompagné dans cette entreprise, et qui, je l'espère, continuerons à l'avenir à tenir un rôle important dans ma vie.

Tout d'abord, je souhaite remercier du fond du cœur mon directeur de thèse, Pascal Paillé. Sans Pascal, je pense que je n'aurais pas fait de doctorat et que je serais resté travailler chez Procter & Gamble (ou j'aurais probablement changé pour un concurrent, comme nous le savons, la fidélité ne paie pas!). C'était une position confortable, mais il est clair qu'une carrière académique correspond davantage à mes valeurs personnelles et à mes aspirations. Je souhaite par conséquent remercier Pascal Paillé pour m'avoir accordé sa confiance dès le début de mon cheminement. Par la suite, Pascal m'a formé, guidé, conseillé et soutenu tout au long du doctorat, sans aucune équivoque. Je remercie Pascal pour son temps, son écoute, sa compréhension et sa patience. Pascal fut toujours présent et disponible dans les moments les plus déterminants, il a grandement facilité mon processus en me rappelant les priorités et en m'aidant à me concentrer sur l'essentiel : la recherche. Pascal m'a poussé à me concentrer sur mes forces, il a soutenu mes choix et m'a fait progresser sur le plan théorique et méthodologique. Nous avons de belles contributions en commun, et j'espère que c'est le début d'une longue collaboration. Pascal, pour les succès passés et ceux à venir, je vous exprime toute ma gratitude et ma générosité.

Ensuite, je souhaite évidemment remercier ma famille : mes parents Michel et Christiane, ma sœur Stéphanie, et Celine ma compagne. Vous m'avez toujours soutenu ces cinq dernières années, et n'avez jamais douté de ma capacité à aller au bout du doctorat. Mes pensées se tournent particulièrement vers Celine. Merci pour ton amour, ton affection, ta gentillesse, ton aide et ta patience. Je sais que ce ne fut pas toujours facile, surtout la première année de doctorat, mais nous l'avons fait, et nous le referions si c'était à refaire.

Cette dernière année, notre famille s'est agrandie avec l'arrivée d'Elise, dont la douceur et les sourires sont venus ensoleiller nos vies... et aussi bousculer un peu mon travail de recherche. J'ai vécu de très beaux moments, et je vous remercie toutes les deux du fond du cœur, Celine, Elise, pour la joie et le bonheur que vous m'apportez au quotidien.

Enfin, je tiens à remercier tous ceux grâce à qui j'ai pu mener autant de projets à termes ces cinq dernières années, à travers mes activités de recherche, d'enseignement, et administrative. Emmanuel Renaud, pour avoir cru en moi et pour m'avoir mis en contact avec Pascal Paillé. Denis Morin, pour ses conseils théoriques et méthodologiques toujours pertinents et bienveillants, pour son aide et sa collaboration au premier article de cette thèse, ainsi que son soutien dans ma recherche de poste. Olivier Boiral, pour la confiance qu'il m'a accordé en tant qu'assistant de recherche et d'enseignement, pour les réalisations et les projets que nous avons en commun, ainsi que son soutien moral et concret lors de mes problèmes d'immigration et ma recherche de poste. Jorge Mejía-Morelos pour son aide et sa collaboration au troisième article de cette thèse. David, avec qui j'ai partagé un bureau pendant trois ans, qui est toujours de bon conseil pour le choix d'un titre ou l'écriture d'une introduction, et dont l'expérience parentale fut précieuse lors de l'arrivée d'Elise. Alain et Rachelle, que je vais retrouver en Belgique, et qui furent présents pour nous soutenir avec Celine à la naissance d'Elise. Rachel Lachance, toujours disponible, une mine d'or et d'information constamment prête à aider et à faciliter, avec l'assistance de Catherine Ancely, des processus administratifs parfois un peu lourds. Luc Brès, que je connais depuis peu mais avec qui une très bonne relation de co-enseignement s'est développée. Et pour terminer, j'aimerais aussi remercier la Faculté des sciences de l'administration de l'Université Laval, qui, à travers les bourses d'excellence du Doyen, m'a grandement aidé à progresser sereinement dans mes études de doctorat.

À toutes et à tous, je vous adresse mes plus chaleureux remerciements.

Nicolas Raineri, le 15 janvier 2015.

Avant-propos

Cette thèse porte sur l'échange social dans les relations au travail et prend la forme de trois articles. Chaque chapitre présente un article de recherche original dont le contenu a été soit publié (chapitre 1), soit accepté (chapitre 2), soit soumis (chapitre 3) à une revue à comité de lecture.

L'article 1 étudie certains préceptes de la théorie de l'échange social dans une optique comparative, afin d'explorer l'existence de différences intergénérationnelles. L'article a été accepté et publié dans la Revue internationale de psychologie sociale. Il est reproduit avec l'autorisation de l'éditeur. La référence de l'article est Raineri, N., Paillé, P., & Morin, D. (2013). Organizational citizenship behavior: An intergenerational study. *Revue internationale de psychologie sociale/International Review of Social Psychology*, 25(3/4), 147-177.

L'article 2 explore une application de la théorie de l'échange social sur l'engagement environnemental et les comportements d'éco-citoyenneté organisationnelle des employés. L'article a été présenté à la conférence du Gronen (*Group of Research on Organizations and the Natural Environment*) en juin 2014. Il a également été accepté pour publication dans la revue *Journal of Business Ethics*, et est reproduit avec l'autorisation de l'éditeur sous le numéro de licence 3554980672888. La référence de l'article est Raineri, N., & Paillé, P. (In Press). Linking corporate policy and supervisory support with environmental citizenship behaviors: The role of employee environmental beliefs and commitment. *Journal of Business Ethics*.

L'article 3 examine l'influence d'échanges sociaux multiples au travail sur les initiatives éco-citoyennes des employés. L'article, écrit en collaboration avec Pascal Paillé et Jorge Mejía-Morelos, est en première ronde de révision dans *European Management Journal*.

Affiliation des co-auteurs :

Jorge Humberto Mejía-Morelos, Ph. D., est professeur agrégé en stratégie au département d'administration de l'Institut technologique autonome de Mexique. Il y dirige le programme exécutif en stratégie et en compétitivité organisationnelle. Ses recherches portent sur la gestion des ressources humaines, la gestion du changement, et la responsabilité environnementale des entreprises.

Denis Morin, Ph. D., est professeur agrégé en gestion des ressources humaines à l'École des sciences de gestion de l'Université du Québec à Montréal. Il est spécialiste de la mesure des différences individuelles ainsi que de l'évaluation et de la gestion du rendement. Il enseigne l'évaluation et la gestion du rendement, la psychométrie et les statistiques. Ses recherches actuelles se concentrent sur la gestion du rendement, la gestion des talents, l'intelligence émotionnelle et la dotation du personnel.

Pascal Paillé, docteur en sciences de gestion, est professeur titulaire au département management de la Faculté des sciences de l'administration de l'Université Laval. Il est directeur du groupe de recherche Gestion des ressources humaines & développement durable (GRHDD). Ses recherches portent notamment sur l'application de la théorie de l'échange social à la fidélisation des ressources humaines, sur l'engagement des employés, et les comportements de citoyenneté organisationnelle. Ses travaux les plus récents portent plus particulièrement sur le domaine de la gestion environnementale et sur les comportements pro-environnementaux des employés.

Introduction

En matière d'intégration, la théorie de l'échange doit être classée comme l'une des théories sociales les plus importantes de l'ère. La théorie freudienne, la théorie de l'action de Parsons et la théorie générale des systèmes sont peut-être les seuls concurrents existants à cet égard. La théorie de l'échange a été utilisée comme moyen de compréhension d'une grande variété de problèmes dans presque toutes les branches des sciences sociales. [...] En raison du caractère abstrait de l'orientation d'échange, celle-ci s'est prêtée à une vaste application en sciences sociales, et a été, en conséquence, une puissante force d'intégration.

KENNETH GERGEN, *Social exchange*, 1980, pp 275-276

La théorie de l'échange social est l'un des paradigmes conceptuels les plus éprouvés et les plus influents pour comprendre des conduites individuelles en milieu social (Cropanzano & Mitchell, 2013). La théorie offre un cadre unitaire et intégratif pour analyser les relations mutuelles entre acteurs sociaux, individuels ou collectifs, et possède un fort caractère prédictif dont le fondement repose sur la *réciprocité*, à savoir, « l'acte de donner un bénéfice en échange d'un bénéfice reçu » (Molm, Schaefer, & Collett, 2007, p. 200). De ce point de vue, l'échange social et le principe de réciprocité ont l'avantage d'expliquer les comportements en milieu de travail de façon parcimonieuse, et selon une approche relativement peu normative sur le plan managérial. Selon la théorie, les employés qui se sentent soutenus, respectés et valorisés dans leur travail, ont généralement tendance à rétrocéder volontairement les dispositions bienveillantes dont ils font l'objet, c'est-à-dire « rendre la pareille ». La manifestation tangible de cet échange s'observe notamment à travers des attitudes et comportements positifs et créateurs de valeur, tels la satisfaction au travail, l'engagement, l'assiduité, la performance, ou la fidélité par exemple (Cole, Schaninger, & Harris, 2002; Coyle-Shapiro & Conway, 2004).

Dans une revue de littérature sur l'échange social, Cropanzano et Mitchell (2005) tentent de rendre compte de l'étendue du champ d'application de la théorie, et estiment, étant donné le nombre considérable d'études empruntant ce paradigme en sciences de gestion,

tout inventaire exhaustif de la littérature comme pratiquement impossible. Cropanzano et Mitchell relèvent cependant des similarités dans les modèles de recherche les plus fréquemment utilisés en comportement organisationnel. La théorie est généralement opérationnalisée sous forme de *relations* d'échange social, identifiées par des variables conceptuelles représentant les bénéfices échangés de part et d'autre. En contexte organisationnel, les concepts les plus significatifs sont le soutien perçu, l'engagement, et les comportements citoyens des employés (Cole et al., 2002; Coyle-Shapiro & Conway, 2004; Cropanzano & Mitchell, 2005). De sorte que plus un individu se sent soutenu dans son milieu de travail, plus il a tendance à s'y impliquer sur le plan attitudinal et comportemental (Chiaburu & Harrison, 2008; LePine, Erez, & Johnson, 2002; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002; Rhoades & Eisenberger, 2002).

L'échange social rend compte de l'interprétation qu'un employé se fait des contributions de son organisation et de son entourage au travail, et se développe à travers les relations de mutualité qu'il forme avec chacune des parties en présence (employeur, supérieur immédiat, collègues, clients, fournisseurs, etc.). L'importance d'étudier les relations d'échange social au travail a clairement été démontrée ces vingt dernières années (Cole et al., 2002; Schaninger & Turnipseed, 2005). L'attitude d'engagement et les comportements citoyens des employés, tels l'entraide spontanée ou la participation volontaire à la vie organisationnelle, sont considérés comme des indicateurs critiques de la qualité de la relation d'emploi en particulier, et des relations au travail en général (Coyle-Shapiro & Shore, 2007; Graham, 1991; Lavelle, 2010; Van Dyne, Graham, & Dienesch, 1994). Ce sont les formes de réciprocité les plus désirables, sur le plan de la performance individuelle et collective, en échange du soutien reçu en milieu organisationnel. Les employés démontrant une attitude d'engagement au travail sont généralement plus motivés, plus impliqués et plus performants (Mathieu & Zajac, 1990; Meyer et al., 2002). Ils manifestent des comportements de citoyenneté organisationnelle, synonymes d'efficacité, dont l'impact concret sur la performance économique a été démontré au niveau organisationnel (e.g., Chun, Shin, Choi, & Kim, 2013; Podsakoff & MacKenzie, 1994).

Sur la base de cette littérature riche et abondante, l'objectif de cette thèse par articles est de tester l'étendue du champ d'application de la théorie de l'échange social, en la confrontant à deux domaines de recherche contemporains dans lesquels ses préceptes sont encore relativement inexploités :

- Le premier domaine, dont le premier article de la thèse fait l'objet, est celui des études sur les différences intergénérationnelles, afin d'examiner la revendication selon laquelle il existe un déclin des échanges sociaux au travail en termes d'engagement des employés et de comportements de citoyenneté organisationnelle, véritable défi sur le plan de la gestion des ressources humaines.
- Le deuxième domaine, dont les deux derniers articles font l'objet, est celui des études sur l'écologisation des entreprises (*corporate greening*), afin d'explorer dans quelle mesure les échanges sociaux au travail peuvent influencer les comportements d'éco-citoyenneté organisationnelle des employés, et ultimement contribuer à la performance environnementale des organisations.

Afin de présenter les deux principaux sujets étudiés dans la thèse, le reste de l'introduction est structuré de la façon suivante. La première sous-partie revient sur les fondements historiques de la théorie de l'échange social et met en relief les préceptes théoriques sur laquelle elle se fonde. La deuxième sous-partie développe plus spécifiquement les relations entre variables principales de la théorie de l'échange social, à savoir les concepts de soutien perçu, d'engagement au travail et de comportements de citoyenneté organisationnelle. La troisième sous-partie expose les questions de recherche et objectifs de la thèse; tandis que la quatrième sous-partie présente la méthodologie et le cadre opératoire choisis pour y répondre.

1.1 La théorie de l'échange social : fondements théoriques

La théorie de l'échange social est une théorie centenaire dont les prémises remontent principalement aux travaux d'ethnographes et d'anthropologues tels Malinowski (1922) et

Mauss (1923). Cette théorie a fait l'objet d'un intérêt accru avec l'essor des sciences sociales dans la deuxième moitié du XXème siècle. Elle est notamment utilisée par les sociologues structuralistes (e.g., Lévi-Strauss, 1949) dans un souci de répondre au problème principal des sciences humaines et sociales encore naissantes, à savoir le débat sur leur statut épistémologique. La théorie de l'échange social dérive du « paradigme de l'action rationnelle emprunté à l'économie » (Coleman, 1986, p. 10), et repose sur un principe de *réciprocité* transactionnelle, considéré comme universel, et gouvernant les relations d'échanges entre acteurs sociaux (e.g., Blau, 1964; Emerson, 1962; Foa, 1971; Gouldner, 1960; Homans, 1958; Thibault & Kelley, 1959). Selon la théorie, les échanges de ressources plus ou moins tangibles et expressives entre deux parties, telles par exemple l'entraide, le sentiment d'appartenance ou le prestige, sont au fondement même des processus d'interaction sociale et permettent de révéler des régularités structurelles prédictives des comportements individuels et collectifs (e.g., Lévi-Strauss, 1949; Mauss, 1923).

La théorie de l'échange social, par sa capacité à considérer une grande variété de comportements humains sortant du cadre d'analyse classique des théories économiques, tels les comportements d'altruisme ou de coopération spontanée, a fait l'objet d'un développement théorique et d'un examen empirique sans précédent en sciences sociales. La théorie a colonisé le domaine de la sociologie (e.g., Blau, 1964; Emerson, 1962; Gouldner, 1960; Homans, 1958), de la psychologie sociale et appliquée (e.g., Batson, 1990; Clark & Mills, 1979; Greenberg, 1980; Krebs, 1970), ainsi que l'histoire de la pensée évolutionniste et les sciences cognitives qui s'y rattachent (e.g., Axelrod & Hamilton, 1981; Cosmides, 1989; Trivers, 1971). Forte de son historique et de sa capacité à offrir un paradigme conceptuel éprouvé, influent et prédictif, la théorie de l'échange social a été amplement adoptée par les chercheurs en sciences de gestion ces vingt dernières années (Cropanzano & Mitchell, 2013), et s'est notamment imposée comme cadre théorique dominant dans l'étude des relations au travail (Coyle-Shapiro & Conway, 2004; Coyle-Shapiro & Shore, 2007).

Il existe quatre grands types analytiques de rationalité pour expliquer le principe de réciprocité au fondement de la théorie de l'échange social : une rationalité instrumentale (e.g., Emerson, 1962; Homans, 1958), une rationalité émotiono-affective (e.g., Lawler & Thye, 1999; Thibault & Kelley, 1959), une rationalité normative (e.g., Blau, 1964; Gouldner, 1960), et une rationalité idéologique (e.g., D. W. Hart & Thompson, 2007; Thompson & Bunderson, 2003). La réciprocité de type instrumentale repose sur l'hypothèse que deux ou plusieurs acteurs sociaux entrent dans une relation d'échange social afin de maximiser leur intérêt personnel. Dans cette optique, un partenaire d'échange utilise la relation afin d'avoir accès à un ensemble de ressources auxquelles il n'aurait pu disposer seul. La relation dure tant que chaque partenaire apporte sa contribution, et s'arrête dès lors qu'un des acteurs en présence n'y trouve plus son intérêt (e.g., Coleman, 1986; Emerson, 1976; Homans, 1958). Cette vision de l'échange social a été critiquée pour son réductionnisme et sa rationalité utilitariste empruntée aux sciences du comportement économique (Meglino & Korsgaard, 2004; Zafirovski, 2005). En opposition, il s'est développé une théorie affective de l'échange social (Lawler, 2001) sur la base des travaux de Thibault et Kelley (1959). Dans cette perspective, les émotions sont considérées comme une des caractéristiques centrales de l'échange social qui se développe sur la base de processus d'attribution. Plus une relation d'échange crée des sentiments positifs et gratifiants, plus les parties en présence vont être attentives à leurs besoins respectifs et ressentir une attraction mutuelle renforçant la relation d'échange social. Cette approche est notamment utilisée en sociologie dans l'analyse des réseaux sociaux (Lawler, Thye, & Yoon, 2009).

La troisième rationalité, la plus influente dans la littérature en sciences de gestion, repose sur une réciprocité dite normative. D'après Gouldner (1960), il existe une norme de réciprocité universelle et omniprésente dans les relations sociales, motivée par un sentiment d'obligation morale. Cette norme implique deux principes fondamentaux : « (1) les personnes doivent venir en aide à celles qui les ont précédemment aidées, et (2) elles ne doivent pas porter atteinte à celles qui les ont précédemment aidées » (Gouldner, 1960, p. 171). Si l'on essaie d'intégrer les trois approches présentées jusqu'ici, il est raisonnable de penser qu'un acteur social puisse développer une relation d'échange à des fins

instrumentales (à moins que le premier geste d'échange soit purement le fruit du hasard ou désintéressé), que l'échange prenne forme sur une base d'obligation normative, et qu'il se renforce à la suite de processus d'attribution psycho-émotionnels positifs. Enfin, Thompson et Bunderson (2003) proposent une perspective idéologique de l'échange social. Il s'agit d'un prolongement particulier de la théorie applicable aux créations d'alliances, dyadiques ou collectives, pour défendre une cause instrumentale à valeur affective et axiologique. Cette forme d'échange social est considérée comme la plus intrinsèque et la plus résistante aux aléas relationnels (Hart & Thompson, 2007).

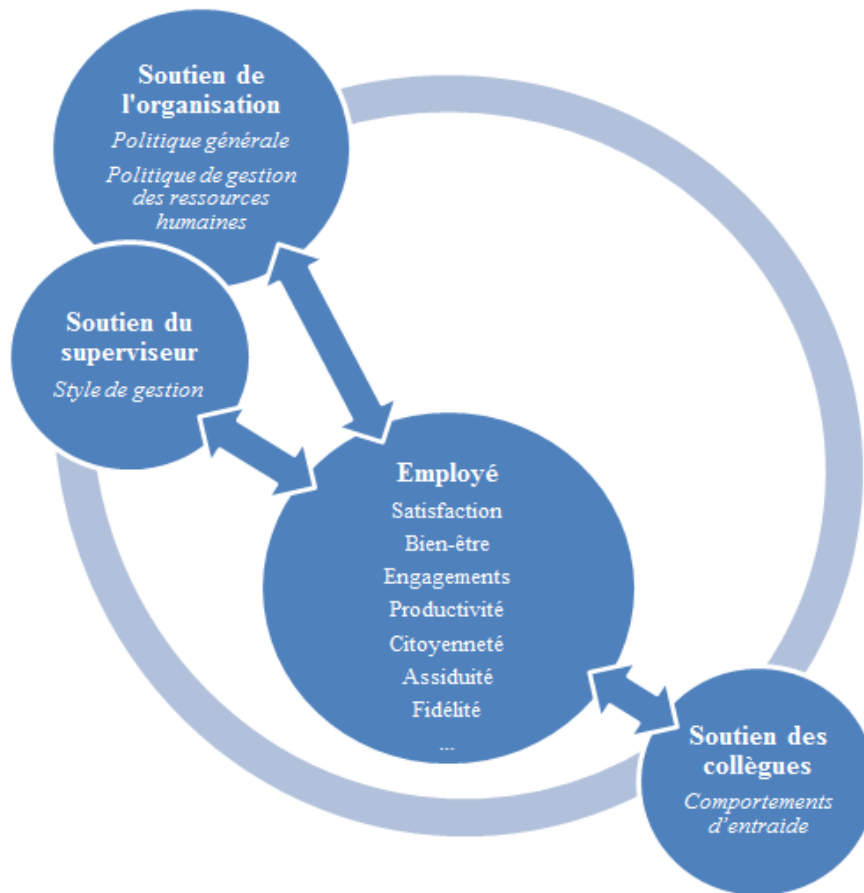
Bien que dans les faits, un acte de réciprocité soit souvent multi-déterminé, c'est l'approche normative qui a trouvé le plus d'écho dans la littérature en comportement organisationnel, donnant la primauté à la *norme* de réciprocité (Cropanzano & Mitchell, 2005; Coyle-Shapiro & Conway, 2004). Basée sur un sentiment d'obligation morale, la norme a l'avantage de combler les limites inhérentes aux préceptes économiques qui sous-tendent la relation d'emploi (Blau, 1964; Coyle-Shapiro & Shore, 2007). En ce sens, échange social et échange économique sont complémentaires dans l'analyse des comportements individuels en milieu organisationnel. L'échange économique donne forme à une obligation contractuelle dont les conditions sont spécifiées par avance, connues par chacune des parties, et formalisées par écrits dans les contrats de travail, conventions collectives et règlements intérieurs. L'échange économique définit la relation d'emploi à minima et pose le cadre normatif dans lequel doivent s'inscrire les comportements de travail. L'échange social, au contraire, permet de dépasser le cadre restreint et prescriptif du contrat de travail en faisant appel à la bonne volonté et aux comportements discrétionnaires des employés (Schaninger & Turnipseed, 2005).

Dans un ouvrage séminal, Blau (1964) indique qu'à l'inverse de l'échange économique, l'échange social repose sur « des faveurs qui créent des obligations futures diffuses, non précisément spécifiées, et dont la nature de la contrepartie ne peut être négociée mais doit être laissée à la discrétion de son auteur ». Autrement dit, l'échange social définit les relations mutuelles, interdépendantes et réciproques entre deux ou plusieurs parties, qui s'inscrivent dans un schéma diachronique de don / contre-don (Mauss, 1923). Il peut s'agir

d'échanges de bénéfices tangibles ou intangibles, et dont la valeur intrinsèque répond aux besoins socio-émotifs (approbation, estime, prestige) des acteurs en présence (Blau, 1964; Foa, 1971; Greenberg, 1980). Bien qu'elles puissent être teintées de réciprocité instrumentale, les relations d'échange social se fondent sur la confiance et sur un sentiment d'obligation morale. Ce faisant, une partie recevant de l'aide ou un bénéfice de la part d'un partenaire d'échange se sentira d'autant plus obligée : (1) que le bénéfice ou l'aide obtenue semble authentique et désintéressé (i.e., dépourvu d'arrière-pensées apparentes), et (2) que le bénéfice ou l'aide reçue réponde à un besoin important et possède une valeur idiosyncratique (Greenberg, 1980; Schaninger & Turnipseed, 2005).

En contexte organisationnel, la théorie de l'échange social édicte que lorsque les employés perçoivent recevoir de l'aide, du soutien, de l'attention ou d'autres dispositions bienveillantes, ils sont davantage susceptibles de rétrocéder en manifestant des attitudes et comportements de travail positifs et créateurs de valeur (Cropanzano & Mitchell, 2005). Au sein de l'organisation, le soutien provient généralement : (1) de l'organisation en tant que telle, à travers sa politique générale et sa politique de gestion des ressources humaines; (2) du supérieur immédiat (le superviseur), à travers son style de gestion; et (3) des collègues de travail à travers leurs comportements d'entraide (voir Figure 1, inspirée de Cole et al., 2002). Bien qu'il soit admis que des échanges sociaux multiples peuvent se créer, se développer et se former en milieu organisationnel, et même le transcender via les relations aux clients et aux fournisseurs par exemple, la plupart des études tendent à analyser les relations d'échange social au travail de manière relativement isolée. Les méta-analyses de Rhoades et Eisenberger (2002) et Chiaburu et Harrison (2008) montrent notamment que chacune des différentes formes de soutien social est séparément et positivement associée à la satisfaction, au bien-être, à l'engagement, à la performance de rôle et aux comportements de citoyenneté organisationnelle, et négativement associée aux comportements de retraits tels les retards, l'absentéisme, l'intention de quitter et les départs involontaires.

Figure 1: Échange sociaux multiples en milieu organisationnel



Note. Les doubles flèches représentent la norme de réciprocité.

Dans cette thèse, afin d'étudier les échanges sociaux au travail d'une manière relativement holistique, chaque article explore au minimum deux relations d'échange simultanément. Le premier article investigate l'existence de différences intergénérationnelles dans les relations entre le soutien perçu de l'organisation et des collègues, l'engagement envers l'organisation et les collègues, et les comportements de citoyenneté organisationnelle. Le deuxième article explore dans quelle mesure le soutien organisationnel et managérial envers l'environnement naturel influence le niveau d'implication d'un employé dans le processus d'écologisation d'une entreprise sur le plan attitudinal et comportemental (i.e., engagement environnemental et comportements d'éco-

citoyenneté organisationnelle). Enfin, le troisième article analyse conjointement les échanges sociaux avec l'organisation, le superviseur, et les collègues, afin d'examiner leur influence sur les initiatives éco-citoyennes des employés. Mais avant d'aller plus en avant et de développer théoriquement nos questions de recherche, il semble pertinent de présenter les principaux concepts à partir desquels la théorie est opérationnalisée sous forme de relations d'échange social.

1.2 Les rouages de l'échange social : soutien perçu, engagement et comportements citoyens des employés

Les premières études testant l'assomption selon laquelle les employés sont disposés à échanger des attitudes et comportements positifs en retour du soutien de leur employeur examinaient l'orientation, ou idéologie d'échange des individus (i.e., leur propension effective à réciproquer), afin de mettre au jour la norme de réciprocité de façon explicite (e.g., Eisenberger, Huntington, Hutchison, & Sowa, 1986; Eisenberger, Cotterell, & Marvel, 1987). Ces travaux de recherche pionniers dans leur domaine ont validés le caractère opérant de la norme sur le plan empirique. De sorte que la plupart des études utilisant l'échange social en tant que cadre théorique font désormais appel à la norme de réciprocité de manière implicite (Coyle-Shapiro & Conway, 2004; Cropanzano & Mitchell, 2005). La théorie de l'échange social est ainsi opérationnalisée sous forme de relations d'échange social où la manifestation de la norme de réciprocité est observée à travers des associations entre variables conceptuelles appartenant à la théorie. Les plus influentes sont le soutien perçu, l'engagement, et les comportements de citoyenneté organisationnelle (Cole et al., 2002; Coyle-Shapiro & Conway, 2004; Cropanzano & Mitchell, 2005).

1.2.1 La perception de soutien en milieu organisationnel

Eisenberger et al. (1986) suggèrent que les employés attribuent des dispositions ou des traits anthropomorphiques aux organisations, positifs ou négatifs, comme la bienveillance ou le cynisme par exemple. Les employés ont tendance à considérer les stratégies, les politiques, les objectifs et les valeurs prônés par les dirigeants comme des actions ou des

prises de positions provenant de l'organisation elle-même. Cette personnification de l'entité morale que représente l'organisation dans son ensemble (en opposition aux entités physiques), conduit les employés à « développer des croyances globales concernant la mesure dans laquelle l'organisation apprécie leurs contributions et se soucie de leur bien-être » (Eisenberger et al., 1986, p. 501).

Les employés portent un intérêt particulier au traitement qu'ils reçoivent au sein de leur organisation. Plus leur travail et leurs actions sont valorisés, plus ils sont soutenus à travers des politiques de gestion perçues comme bienveillantes, et plus ils feront des efforts pour atteindre les objectifs organisationnels. Il se crée ainsi une relation de mutualité à travers laquelle les employés développent un lien émotionnel positif envers l'organisation, dont la conséquence est d'accroître leur engagement affectif, et, en définitive, leur identification aux buts et aux valeurs organisationnels (Eisenberger et al., 1986; Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001; O'Reilly & Chatman, 1986). En d'autres termes, plus l'organisation est perçue comme étant elle-même engagée envers ses employés, et plus ceux-ci auront tendance, en retour, à s'engager envers l'organisation. C'est un cercle considéré comme vertueux, une relation de réciprocité qui tend à concrètement se manifester, chez les employés, par des comportements palpables et tangibles, notamment sous la forme de citoyenneté organisationnelle (Rhoades & Eisenberger, 2002). Notons que ce phénomène repose sur le mécanisme de la perception. Ainsi, pour être effectifs, l'aide et le soutien provenant de l'organisation doivent être perçus comme discrétionnaires et à l'initiative libre des dirigeants, c'est-à-dire volontaires et non imposés ou contraints par les lois et réglementations en vigueur.

Mais au-delà des attributs anthropomorphiques que l'on peut accorder aux personnes morales, il ne faut pas perdre de vue que les employés construisent principalement leur rapport à l'organisation en fonction des différentes coalitions qui la composent, ainsi que des échanges sociaux et des interrelations qu'ils possèdent avec leur supérieur immédiat (le superviseur), et leurs collègues (l'équipe de travail) (Becker, 1992; Becker, Billings, Eveleth, & Gilbert, 1996; Reichers, 1985). En effet, de la même manière que les salariés cultivent des croyances sur les intentions de leur organisation dans son ensemble, ils

« développent des visions globales concernant l'intensité et le degré selon lequel les superviseurs apprécient leurs contributions et se soucient de leur bien-être » (Kottke & Sharafinski, 1988; Rhoades & Eisenberger, 2002, p. 700). Il en va de même pour les collègues de travail, même si cette cible d'échange social est la moins étudiée dans la littérature (Bishop, Scott, & Burroughs, 2000; Chiaburu & Harrison, 2008).

1.2.2 L'engagement et les comportements citoyens des employés

Il existe un caractère relativement symétrique entre le soutien perçu, d'une part, et l'engagement et la citoyenneté des employés, d'autre part. En démontrant une préoccupation sincère pour le bien-être des employés, et en valorisant leurs contributions au travail, l'organisation et ses différents constituants communiquent leur engagement envers le personnel (Cropanzano & Mitchell, 2005; Eisenberger et al., 2001). Réciproquement, les employés qui développent une attitude d'engagement au travail ont tendance à soutenir l'organisation, ses valeurs, ses objectifs, et ses différents constituants (Meyer & Allen, 1997; Meyer & Herscovitch, 2001). Sur le plan conceptuel, l'engagement individuel procède d'un sentiment d'attachement et de responsabilité envers la cible d'engagement, que ce soit l'organisation, le superviseur, les collègues, un concept ou une idée (R. B. Brown, 1996; Cohen, 2003; H. J. Klein, Cooper, Molloy, & Swanson, 2014; H. J. Klein, Molloy, & Brinsfield, 2012).

Le concept d'engagement individuel est l'un des plus étudiés dans la littérature en comportement organisationnel ces quarante dernières années (Cohen, 2007; H. J. Klein et al., 2012; Meyer & Herscovitch, 2001). La littérature a atteint un niveau de sophistication relativement impressionnant, et notre objectif n'est pas de retranscrire ici l'ensemble des subtilités qui alimentent le débat dans ce domaine (voir, par exemple, Bingham, Mitchell, Bishop, & Allen, 2013; R. B. Brown, 1996; Cohen, 2007; H. J. Klein et al., 2012; Meyer, Becker, & Vandenberghe, 2004; Meyer & Herscovitch, 2001; Meyer & Parfyonova, 2010). Dans un souci de parcimonie, notons simplement que l'engagement est un état d'esprit (*a mind-set*) dénotant un sentiment d'attachement et de responsabilité qui « lie » un individu à une ligne de conduite, et joue un rôle dans la détermination des comportements en leur

donnant une direction (H. J. Klein et al., 2012; Meyer & Herscovitch, 2001). L'engagement est un concept attitudinal latent qui est mesurable sur le plan psychométrique, mais non observable en tant que tel. Un des meilleurs indices de l'engagement des employés en milieu organisationnel (autre que la fidélité et la durée du mandat, qui ne reflètent pas nécessairement l'attachement des employés mais peut dénoter une simple inertie professionnelle), se trouve dans les comportements de citoyenneté organisationnelle, de sorte que l'engagement possède un rôle médiateur entre le soutien perçu, d'une part, et les comportements citoyens des employés, d'autre part (voir, par exemple, Eisenberger et al., 2001; Settoon, Bennet, & Liden, 1996; Wayne, Shore, & Liden, 1997).

Les comportements de citoyenneté organisationnelle font référence à toutes les actions spontanées, discrétionnaires et volontaires des employés, qui peuvent paraître secondaires aux premiers abords, mais sans lesquelles l'organisation n'est qu'une structure sociotechnique rigide, sclérosée, et incapable de faire face aux contingences organisationnelles (Katz, 1964; Organ, 1988; Podsakoff & MacKenzie, 1997). Il s'agit par exemple de gestes « d'entraide », qui consistent à assister certains membres de l'organisation à résoudre un problème spécifique sans attendre qu'ils viennent le demander, à prendre en charge un nouvel employé et lui expliquer les arcanes de l'organisation, ou encore à résoudre des différends en réconciliant des points de vues opposés pour obtenir un consensus. Il existe également les actes dits « civiques », qui impliquent de se tenir au courant et de participer activement à la vie interne de l'organisation, ou encore la « sportivité » (*sportsmanship*), qui suppose de ne pas se plaindre des petits inconvénients du travail, de passer outre et d'aller de l'avant. En ce sens, les comportements de citoyenneté organisationnelle ne sont ni requis techniquement, ni contractuellement, et ne réclament a priori aucune compétence particulière, si ce n'est de la bonne volonté. Bien que ces comportements soient désintéressés, ils ne sont pas gratuits et constituent une forme de réciprocité pour la bienveillance, le soutien et le traitement favorable reçus au sein de l'organisation (Organ, Podsakoff, & MacKenzie, 2006; Rhoades & Eisenberger, 2002).

Parce qu'ils caractérisent des relations d'échanges réciproques, les comportements de citoyenneté organisationnelle relèvent clairement de la théorie de l'échange social. Ceci

illustre pourquoi la littérature s'appuie abondamment sur la norme de réciprocité, de façon plus ou moins explicite, pour expliquer ces comportements générateurs de valeur organisationnelle sur le plan tant qualitatif que quantitatif (Organ et al., 2006; Van Dyne & Ellis, 2004). En tant que concept et variable dépendante clé de l'échange social en milieu organisationnel, les comportements citoyens des employés sont généralement considérés comme un indicateur vital de la qualité des relations au travail (Graham, 1991; Lavelle, 2010; Van Dyne et al., 1994). De plus, la définition même des comportements de citoyenneté organisationnelle—« actions individuelles discrétionnaires, non directement ou explicitement reconnues par le système formel de récompenses, et qui une fois agrégées, soutiennent le fonctionnement (efficient et) efficace de l'organisation » (Organ, 1988, p. 4; Organ et al., 2006, p. 3)—implique quasi-systématiquement leur opérationnalisation sous forme de mesure de la performance (LePine et al., 2002). Les comportements citoyens des employés permettent notamment de faire face aux contingences organisationnelles en évitant l'aggravation de certains problèmes et en régulant les flux de travail, comme lorsque des employés s'entraident pour éviter l'apparition de goulots d'étranglement par exemple. Les études empiriques ont depuis longtemps démontré l'impact de ces comportements individuels discrétionnaires sur la performance au niveau des équipes de travail (e.g., Podsakoff, Ahearne, & MacKenzie, 1997) ainsi qu'au niveau organisationnel (e.g., Podsakoff & MacKenzie, 1994).

Tandis que la contribution des comportements citoyens des employés à la performance organisationnelle a amplement été examinée dans la littérature en gestion (Chun et al., 2013; LePine et al., 2002; Podsakoff, MacKenzie, Paine, & Bachrach, 2000), de récentes études ont transposé ce concept au domaine environnemental afin d'avoir une compréhension plus fine des comportements de travail ayant un impact sur la performance environnementale des organisations (Boiral, 2009; Boiral & Paillé, 2012; Daily, Bishop, & Govindarajulu, 2009; Lamm, Tosti-Kharas, & Williams, 2013; Smith & O'Sullivan, 2012). Il s'agit par exemple d'encourager ses collègues à adopter des conduites plus respectueuses de l'environnement, de se tenir au courant des pratiques écologiques de l'entreprise, de partager ses connaissances pour identifier des sources de pollutions, de volontairement participer à des projets environnementaux, de suggérer des améliorations aux processus de

travail, etc. (Boiral, 2009; Boiral & Paillé, 2012). Les recherches dans ce domaine mettent non seulement l'accent sur une lacune importante des études en gestion environnementale qui tendent à négliger le niveau d'analyse individuel (Bansal & Gao, 2006; Ones & Dilchert, 2012), mais permettent aussi de tester l'étendue du champ d'application de la théorie de l'échange social en la confrontant à un territoire dans lequel ses préceptes sont encore relativement inexploités (e.g., Lamm, Tosti-Kharas, & King, 2014; Paillé, Boiral, & Chen, 2013; Paillé & Mejía-Morelos, 2014).

Malgré la maturité des concepts phares à partir desquels les relations d'échange social sont généralement opérationnalisées en comportement organisationnel, et malgré le nombre considérable d'études faisant appel aux préceptes de la théorie, il est possible d'identifier des lacunes dans la littérature, et notamment certains domaines de recherche pour le moins émergents et sous-exploités. Dans cette thèse par articles, deux domaines de recherche contemporains ont été identifiés : celui des études sur les différences intergénérationnelles (dont le premier article fait l'objet), et celui des études sur l'écologisation des entreprises (dont les deux derniers articles font l'objet). Les revues de littérature correspondantes et le développement conceptuel associé sont directement présentés dans les articles formant les chapitres de la thèse. Les questions de recherche et objectifs de la thèse sont exposées ci-dessous.

1.3 Questions de recherche et objectifs de la thèse

La présente thèse pose les questions de recherche suivantes : (1) existe-t-il un déclin générationnel des échanges sociaux au travail observable dans les relations entre le soutien perçu, l'engagement, et les comportements de citoyenneté organisationnelle, et (2) dans quelle mesure les préceptes de la théorie de l'échange social expliquent-ils les comportements d'éco-citoyenneté organisationnelle des employés?

1.3.1 Existe-t-il un déclin générationnel des échanges sociaux au travail ?

Malgré le caractère universel, omniprésent, et d'aucun diront génétiquement sélectionné de la norme de réciprocité qui est au centre de la théorie de l'échange social (voir, par exemple, les travaux de sociobiologie de Alexander, 1987; Boyd & Richerson, 1989; Cosmides, 1989; Trivers, 1971), il existe un discours dissonant remettant en cause la pertinence et l'intensité des relations de mutualité entre acteurs sociaux, dans un monde considéré comme de plus en plus individualisé, fait de liens impersonnels et dématérialisés (Lawler, Thye, & Yoon, 2009). Selon Putnam (2000), les bouleversements économiques, sociétaux et technologiques intervenus dans la deuxième moitié du XX^e siècle ont eu pour conséquence, avec le temps, d'affaiblir la cohésion sociale et de réduire la confiance interpersonnelle ainsi que les échanges mutuels basés sur le principe de réciprocité. Dans cette perspective, la plupart des activités sociales s'inscriraient dans une logique de marché pure, où l'échange économique règne sur l'échange social, et où les relations entre acteurs sociaux ne reposent que sur des bases instrumentales. Au sein de ce type de discours, les relations de travail n'échappent évidemment pas à la règle.

Certaines recherches en gestion semblent en effet noter un relâchement des échanges sociaux en milieu organisationnel et une dilution de la norme de réciprocité (e.g., Atkinson, 2002; de Meuse, Bergmann, & Lester, 2001). Ces recherches s'appuient généralement sur une analyse sociologique des différences intergénérationnelles pour expliquer comment les individus nées à la fin des « trente glorieuses » (i.e., la génération X, qui suit celle des baby-boomers), ayant vécu lors d'une période de changements rapides et de chômage accru, marquées par des phénomènes massifs de restructurations organisationnelles et de rationalisation des effectifs, ont construit un rapport relativement méfiant au monde du travail et de l'entreprise (Cennamo & Gardner, 2008; Twenge, Campbell, Hoffman, & Lance, 2010). Cependant, les résultats des travaux dans ce domaine sont généralement inconsistants et contradictoires. Si certaines études observent une diminution des échanges sociaux au travail (e.g., Brunetto, Farr-Wharton, & Shacklock, 2011; d'Amato & Herzfeldt, 2008; de Meuse et al., 2001), d'autres infirment ce constat (e.g., Benson & M. Brown, 2011; Ferres, Travaglione, & Firms, 2003; Hess & Jepsen, 2009; Lub, Bijvank, Bal,

Blomme, & Schalk, 2012). Il demeure par conséquent relativement difficile de se faire une idée précise sur le déclin potentiel de la norme de réciprocité au cœur de la théorie de l'échange social.

Ce discours générationnel d'individualisation de la société et de perte de sens intrinsèque des relations de travail ne reste pas moins contesté. Lawler et al. (2009) proposent un récit alternatif, relativement fidèle aux écrits classiques sur l'échange social; ils soulignent « la nature fondamentalement sociale de l'espèce humaine et notre remarquable tendance à transformer des liens purement transactionnels en liens relationnels à travers lesquels la *relation* devient un objet de valeur en tant que tel » (p. 19 – emphase ajoutée).

Malgré l'influence de la théorie de l'échange social en tant que cadre général explicatif des comportements au travail, les débats sur le déclin générationnel de la norme de réciprocité soulèvent un certain questionnement et présentent des lacunes qu'il apparaît pertinent d'explorer. Ce faisant, le premier article de cette thèse propose d'examiner la réalité des différences intergénérationnelles dans les relations entre le soutien perçu de l'organisation et des collègues, l'engagement envers l'organisation et les collègues, et les comportements de citoyenneté organisationnelle (voir chapitre 1).

Outre l'investigation du déclin générationnel des échanges sociaux au travail, le deuxième domaine de recherche dans lequel nous allons confronter les préceptes de la théorie de l'échange social est celui des études sur l'écologisation des entreprises afin d'essayer de répondre à la question de recherche suivante.

1.3.2 Dans quelle mesure les préceptes de la théorie de l'échange social expliquent-ils les comportements d'éco-citoyenneté organisationnelle des employés?

Depuis une trentaine d'années, les problématiques environnementales sont en constante progression dans les études en gestion (Bansal & Gao, 2006; Ones & Dilchert, 2012;

Shrivastava, 1995). Les activités organisationnelles ont souvent une incidence négative sur l'environnement, ce qui pousse les organisations, à des fins de légitimité sociale, à faire en sorte de limiter leur impact sur le milieu naturel et, d'une certaine manière, à faire avancer la cause environnementale (Boiral, 2007a). Bien que la plupart des travaux de recherche dans le domaine se concentrent sur les moyens techniques, formels et objectifs permettant aux organisations de mieux protéger l'environnement naturel, une dimension trop souvent négligée dans la littérature concerne la dimension individuelle, informelle et discrète des comportements des employés (Boiral, 2002, 2005, 2007a, 2009; S. L. Hart, 1995). Les politiques de gestion environnementale ne modifient pas systématiquement les comportements au travail, lesquels sont pourtant essentiels pour faire face aux contingences quotidiennes et s'assurer de l'utilisation adéquate des ressources organisationnelles (Jiang & Bansal, 2003; Boiral, 2007b). Parce qu'ils sont en première ligne et au plus près des processus de production, les employés possèdent un rôle majeur à jouer en terme de gestion environnementale. À ce titre, Stringer (2010) souligne très justement qu'en l'absence de participation, d'implication et d'engagement volontaires des employés, « les idées seront gaspillées, les technologies perdront leur effet de levier, les installations seront mal exploitées, et l'activité ne produira ni économies, ni valeur ajoutée » (p. 66).

L'importance des comportements des employés dans le processus d'écologisation des organisations, même si cette thématique sous-développée n'est pas nouvelle dans la littérature, est également palpable à travers le nombre récent d'appels à communication de revues académiques telles que *German Journal of Research in Human Resource Management* (2011), *Human Resource Management* (2012), *Industrial and Organizational Psychology* (2012), *International Journal of Environment and Sustainable Development* (2012), *International Journal of Human Resource Management* (2015), *Journal of Organizational Behavior* (2013), et la publication de livres collectifs sur la question (Barling & Robertson, 2015; Jackson, Ones, & Dilchert, 2012; Huffman & S. R. Klein, 2013).

Comme de nombreux auteurs l'ont fait remarquer, les actions et initiatives pro-environnementales des employés s'insèrent relativement bien dans le cadre conceptuel des

comportements de citoyenneté organisationnelle (Boiral, 2009; Boiral & Paillé, 2012; Daily et al., 2009; Lamm et al., 2013; Lülfs & Hahn, 2013; Ones & Dilchert, 2012; Ramus & Killmer, 2007; Smith & O'Sullivan, 2012). Le caractère volontaire, informel, et décentralisé des comportements citoyens des employés répond à la complexité et à la diversité des problèmes écologiques, compense les limites inhérentes des pratiques formelles de gestion environnementale, et soutient le processus d'écologisation des organisations (Boiral, 2009; Paillé, Chen, Boiral, & Jin, 2014).

Tandis que les déterminants des comportements de citoyenneté organisationnelle ont amplement été examinés dans le cadre de la théorie de l'échange social, comme le montrent les méta-analyses de LePine et al. (2002), Meyer et al. (2002) et Rhoades et Eisenberger (2002), les mécanismes socio-psychologiques conduisant les employés à adopter des comportements d'éco-citoyenneté organisationnelle sont encore relativement peu étudiés. Bien qu'un nombre croissant d'études sur la question ont vu le jour pendant ces deux dernières années (e.g., Lamm et al., 2013, 2014; Paillé et al., 2013; Paillé & Mejía-Morelos, 2014; Temminck, Mearns, & Fruhen, 2013), confirmant l'intérêt grandissant pour le domaine, seuls les travaux conceptuels de Ramus et Killmer (2007) et Daily et al. (2009) étaient disponibles au moment où la thèse a débuté. Ces derniers proposent des modèles théoriques relativement similaires l'un de l'autre, avec pour déterminants des comportements d'éco-citoyenneté organisationnelle : (1) le soutien perçu du superviseur pour les initiatives pro-environnementales; (2) le soutien perçu de l'organisation envers l'environnement naturel à travers ses politiques et pratiques de gestion environnementale; (3) les prédispositions personnelles des employés (leurs croyances et préoccupations écologiques); et (4) leur sentiment de compétence personnelle (ce dernier antécédent étant unique à l'article de Ramus et Killmer). Bien que Ramus et Killmer (2007) et Daily et al. (2009) ne mentionnent pas explicitement la théorie de l'échange social, ils proposent des relations entre variables appartenant à ce paradigme, et soulèvent implicitement la question suivante : dans quelle mesure les préceptes de la théorie de l'échange social expliquent-ils les comportements d'éco-citoyenneté organisationnelle des employés?

Ce sera l'objectif des deux derniers articles de la thèse que d'étudier les mécanismes socio-psychologiques, en lien avec la théorie de l'échange social, conduisant les employés à volontairement adopter des comportements pro-environnementaux au travail. Plus précisément, le deuxième article propose d'examiner de quelle façon le soutien de l'organisation et du superviseur envers l'environnement naturel interagit avec les croyances écologiques des employés pour influencer leur engagement environnemental au travail et, par la suite, leurs comportements d'éco-citoyenneté organisationnelle (voir chapitre 2). Quant au troisième article, il appréhende la configuration et l'ampleur avec laquelle les échanges sociaux multiples au travail sont susceptibles d'influencer les initiatives éco-citoyennes des employées (voir chapitre 3).

Avant de présenter les articles de la thèse, nous concluons cette introduction en explicitant la méthodologie et le cadre opératoire utilisés.

1.4 Méthodologie et cadre opératoire

1.4.1 Échantillonnage

Chacun des articles formant un chapitre de la thèse formulent un certain nombre d'hypothèses prédisant ce qui devrait généralement se produire sur le terrain empirique selon les préceptes de la théorie de l'échange social. Il a été décidé d'utiliser des échantillons indépendants pour chacun des trois articles. Étant donné la thématique de la thèse, la population de référence à laquelle s'adressent nos questions de recherche englobe typiquement les travailleurs au sein de pays dans lesquels les conditions de travail sont réglementées. Les pays où les conditions de travail sont peu réglementées sont moins propices à l'étude des comportements de citoyenneté organisationnelle. Les employés possèdent généralement moins de liberté ou de pouvoir discrétionnaire dans leur emploi (Turnipseed & Murkison, 2000).

La méthode de sélection des répondants au sein de la population de référence n'a pas été effectuée selon une approche probabiliste. La méthode probabiliste consiste à sélectionner un échantillon représentatif de la population de référence à des fins d'inférence statistique et de validité externe. Cette approche est la plus robuste car elle permet de généraliser les résultats de l'échantillon à la population de référence dans son ensemble (Thiétard et al., 2007). Cependant, cette méthode d'échantillonnage est très difficile à mettre en œuvre et nécessite souvent de faire appel à un service de marketing spécialisé dispendieux qui s'occupe de cibler les répondants pour s'assurer que la segmentation de l'échantillon soit conforme à celle de la population de référence. Une alternative est de sélectionner de manière aléatoire un nombre extrêmement grand de répondants pour que la répartition des cas au sein de l'échantillon soit relativement fidèle à la population d'origine, mais cela nécessite d'avoir accès à une base de données excessivement large. Par conséquent, les trois échantillons utilisés séparément pour chacun des articles ont été sélectionnés par convenance. Cette méthode facilite le recueil de données et n'est pas dispendieuse même si elle a l'inconvénient de réduire la validité externe des résultats.

1.4.2 Collecte des données

Le premier article utilise des données secondaires anonymes recueillies auprès de 704 employés du secteur public d'une agence gouvernementale du Québec. Les employés ont rempli un questionnaire de façon volontaire, pendant leurs heures de travail, avec le soutien de l'agence. Étant donné que le questionnaire a été administré directement par l'employeur sur le lieu de travail, Monsieur Paillé qui dirige cette thèse et avec qui l'article a été écrit, a bien insisté auprès de l'agence afin qu'elle communique de manière claire, évidente et explicite auprès des employés que leurs réponses étaient anonymes et confidentielles, et qu'il serait impossible de les identifier en fonction de leurs réponses.

Les deuxième et troisième articles utilisent des données anonymes et confidentielles recueillies respectivement auprès de 665 anciens élèves d'une école de commerce française, et auprès de 535 anciens élèves d'une école de commerce mexicaine. Les questionnaires ont été administrés en ligne, par courriel, via un lien hypertexte. Conformément aux normes

d'éthique de la recherche avec des sujets humains, les questionnaires étaient précédés d'une présentation des objectifs de l'étude et d'un formulaire de consentement. La participation à l'étude était entièrement volontaire, et les répondants pouvaient décider de ne pas répondre à certaines questions et cesser leur participation à tout moment.

Le projet de recherche a été approuvé par le Comité d'éthique de l'Université Laval : numéro d'approbation 2010-268 R-1 / 15-06-2012.

1.4.3 Mesure des comportements de citoyenneté organisationnelle

Les données collectées pour les trois articles formant la thèse ont été recueillies à l'aide de questionnaires auto-rapportés afin d'assurer l'anonymat des répondants. Cependant, les études dans lesquelles les employés évaluent eux-mêmes leurs comportements de citoyenneté organisationnelle ont fait preuve de critiques. Il est possible de confondre des artéfacts de mesure, et notamment la variance de méthode commune, pour des relations substantielles entre variables. Le biais de variance commune provient notamment du fait que les individus ont tendance à répondre aux questions qui leurs sont posées en suivant des motifs de réponses relativement constants afin de ne pas paraître incohérents, ou en voulant se présenter sous un jour plus favorable qu'ils ne le sont vraiment (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). De plus, quand les individus s'évaluent eux-mêmes, ils risquent de rapporter leurs intentions comportementales davantage que leurs comportements réels.

Selon Organ et Ryan (1995), les comportements de citoyenneté organisationnelle devraient par conséquent être mesurés par le superviseur afin d'avoir une mesure moins biaisée de la réalité. Bien que cette procédure permette de résoudre les problèmes d'artéfacts de mesure liés au biais de variance commune, l'évaluation par le superviseur est également subjective et imprécise. Les superviseurs ont une connaissance incomplète des comportements citoyens de leurs subordonnés, car ces gestes sont par définition discrétionnaires, et peuvent donc ne pas être remarqués (Cropanzano, Howes, Grandey, & Toth, 1997; Van Dyne & Ellis, 2004). Comme le mentionnent Organ et al. (2006), par ailleurs partisans d'une évaluation externe des comportements de citoyenneté

organisationnelle, « le décompte de chacune de ces actions exigerait une armée de scribe et un système d'intelligence oppressif » (p. 10). Les superviseurs ont peut-être une bonne connaissance des initiatives discrétionnaires de leurs subordonnés quand ils en bénéficient eux-mêmes directement, mais ils peuvent ignorer celles dont ils ne font pas l'objet. De fait, une évaluation par le superviseur n'est pas systématiquement moins biaisée ou plus objective qu'une évaluation auto-rapportée.

Selon Vandenberg, Lance, et Taylor (2005), la décision de faire appel au superviseur pour évaluer les comportements de citoyenneté organisationnelle dépend du but de la recherche. Lorsque l'objectif est d'examiner des relations entre superviseur et subordonnés, il semble plus approprié de faire évaluer le superviseur, mais lorsque l'objectif est d'examiner les comportements des employés dans un cadre plus général, l'évaluation auto-rapportée apparaît plus justifiée (Boiral & Paillé, 2012).

L'utilisation de questionnaires auto-rapportés reste néanmoins problématique à cause du biais de variance commune. Suivant les conseils de Podsakoff et al. (2003), des techniques statistiques et non statistiques ont été utilisées afin de limiter et de contrôler le biais de variance commune. En amont, l'anonymat et la confidentialité ont été garantis. Les répondants ont eu la certitude que personne ne serait en mesure de les identifier ou de savoir s'ils avaient participé à l'étude. Nous leur avons aussi clairement précisé qu'il n'y avait ni bonnes ni mauvaises réponses, et que seule leur opinion nous intéressait. En aval, nous avons utilisé un test statistique permettant de partitionner la variance entre traits, méthode, et erreur de mesure afin de nous assurer que la variance liée à la méthode commune ne fournissait pas une explication alternative aux relations observées entre les variables.

1.4.4 Modélisation par équations structurelles

Les articles de la thèse formulent un certain nombre d'hypothèses mettant en lien des variables au sein de modèles causaux ou structurels, qui nécessitent d'effectuer des analyses de cheminements. Ce type d'analyse se conduit typiquement à l'aide de méthodes

statistiques, et notamment la modélisation par équations structurelles. Les équations structurelles possèdent un certain nombre d'avantages par rapport aux analyses de régression multiples. Elle permet : (1) de tester des relations entre variables en tenant compte de la configuration du modèle dans son ensemble; (2) de relier des mesures latentes à leurs indicateurs de mesure; (3) de calculer l'erreur de mesure et ainsi corriger les corrélations entre variables; et (4) de partitionner la variance liée à la méthode (Bentler, 2006).

De plus, la modélisation par équations structurelles est la méthode la plus appropriée pour réaliser des comparaisons multi-groupes à partir de variables catégorielles, grâce aux tests d'invariance (Vandenberg & Lance, 2000; Wegener & Fabrigar, 2000; Williams, Edwards, & Vandenberg, 2003). Les tests d'invariance permettent de déterminer statistiquement si la force des relations entre variables au sein d'un modèle structurel peut être considérée comme significativement différente entre deux ou plusieurs groupes. Cette méthode est notamment utilisée dans le premier chapitre et article de cette thèse dont l'objectif est d'appréhender s'il existe un déclin générationnel des relations d'échange social au travail, en comparant les comportements de citoyenneté organisationnelle des deux cohortes les plus représentés de nos jours dans le monde du travail, à savoir les baby-boomers et la génération X.

Références – Introduction

- Alexander, R. D. (1987). *The biology of moral systems*. Hawthorne, NY: Aldine de Gruyter.
- Atkinson, C. (2002). Career management and the changing psychological contract. *Career Development International*, 7(1)14-23.
- Axelrod, R., & Hamilton, W. D. (1981). The evolution of cooperation. *Science*, 211(4489), 1390-1396.
- Bansal, P., & Gao, J. (2006). Building the future by looking to the past: Examining research published on organizations and environment. *Organization & Environment*, 19(4), 458-478.
- Barling, J., & Robertson, J. L. (2014). *The psychology of green organization*. Oxford, England: Oxford University Press.
- Batson, C. D. (1990). How social an animal? The human capacity for caring. *American Psychologist*, 45(3), 336-346.
- Becker, T. E. (1992). Foci and bases of commitment: Are they distinctions worth making? *Academy of Management Review*, 35(1), 232-244.
- Becker, T. E., Billings, R. S., Eveleth, D. M., & Gilbert, N. L. (1996). Foci and bases of employee commitment: Implications for job performance. *Academy of Management Journal*, 39(2), 464-482.
- Benson, J., & Brown, M. (2011). Generations at work: Are there differences and do they matter? *International Journal of Human Resource Management*, 22(9), 1843-1865.
- Bentler, P. M. (2006). *EQS 6 structural equations program manual*. Encino, CA: Multivariate Software.
- Bingham, J. B., Mitchell, B. W., Bishop, D. G., & Allen, N. J. (2013). Working for a higher purpose: A theoretical framework for commitment to organization-sponsored causes. *Human Resource Management Review*, 23(2), 174-189.
- Bishop, J. W., Scott, K. D., & Burroughs, S. M. (2000). Support, commitment, and employee outcomes in a team environment. *Journal of Management*, 26(6), 1113-1132.
- Blau, P. M. (1964). *Exchange and power in social life*. New York, NY: Wiley.
- Boiral, O. (2002). Tacit knowledge and environmental management. *Long Range Planning*, 35(3), 291-317.

- Boiral, O. (2005). The impact of operator involvement in pollution reduction: Case studies in Canadian chemical companies. *Business Strategy and the Environment*, 14(6), 339-360.
- Boiral, O. (2007a). *Environnement et gestion: De la prévention à la mobilisation*. Québec, QC: Presses de l'Université Laval.
- Boiral, O. (2007b). Corporate greening through ISO 14001: A rational myth?. *Organization Science*, 18(1), 127-146.
- Boiral, O. (2009). Greening the corporation through organizational citizenship behaviors. *Journal of Business Ethics*, 87(2), 221-236.
- Boiral, O., & Paillé, P. (2012). Organizational citizenship behaviour for the environment: Measurement and validation. *Journal of Business Ethics*, 109(4), 431-445.
- Boyd, R., & Richerson, P. J. (1989). The evolution of indirect reciprocity. *Social Networks*, 11(3), 213-236.
- Brunetto, Y., Farr-Wharton, R., & Shacklock, K. (2011). Communication, training, well-being, and commitment across nurse generations. *Nursing Outlook*, 60(1), 7-15.
- Brown, R. B. (1996). Organizational commitment: Clarifying the concept and simplifying the existing construct typology. *Journal of Vocational Behavior*, 49(3), 230-251.
- Cennamo, L., & Gardner, D. (2008). Generational differences in work values, outcomes and person-organisation values fit. *Journal of Managerial Psychology*, 23(8), 891-906.
- Chiaburu, D. S., & Harrison, D. A. (2008). Do peers make the place? Conceptual synthesis and meta-analysis of coworker effects on perceptions, attitudes, OCBs, and performance. *Journal of Applied Psychology*, 93(5), 1082-1103.
- Chun, J. S., Shin, Y., Choi, J. N., & Kim, M. S. (2013). How does corporate ethics contribute to firm financial performance? The mediating role of collective organizational commitment and organizational citizenship behavior. *Journal of Management*, 39(4), 853-877.
- Clark, M. S., & Mills, J. (1979). Interpersonal attraction in exchange and communal relationships. *Journal of Personality and Social Psychology*, 37(1), 12-24.
- Cohen, A. (2003). *Multiple commitments in the workplace: An integrative approach*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Cohen, A. (2007). Commitment before and after: An evaluation and reconceptualization of organizational commitment. *Human Resource Management Review*, 17(3), 336-354.

- Cole, M. S., Schaninger, W. S., & Harris, S. G. (2002). The workplace social exchange network a multilevel, conceptual examination. *Group & Organization Management*, 27(1), 142-167.
- Coleman, J. (1986). *Individual interests and collective action*. Cambridge, UK: Cambridge University Press.
- Cosmides, L. (1989). The logic of social exchange: Has natural selection shaped how humans reason? Studies with the Wason selection task. *Cognition*, 31(3), 187-276.
- Coyle-Shapiro, J. A-M., & Conway, N. (2004). The employment relationship through the lens of social exchange theory. In J. A-M. Coyle-Shapiro, L. M. Shore, M. S. Taylor, & L. E. Tetrick (Eds.), *The employment relationship: Examining psychological and contextual perspectives* (pp. 5-28). Oxford, UK: Oxford University Press.
- Coyle-Shapiro, J. A-M., & Shore, L. M. (2007). The employee-organization relationship: Where do we go from here?. *Human Resource Management Review*, 17(2), 166-179.
- Cropanzano, R., Howes, J. C., Grandey, A. A., & Toth, P. (1997). The relationship of organizational politics and support to work behaviors, attitudes, and stress. *Journal of Organizational Behavior*, 18(2), 159-180.
- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, 31(6), 874-900.
- Cropanzano, R., & Mitchell, M. S. (2013). Social exchange theory. In E. H. Kessler (Ed.), *Encyclopedia of management theory* (pp. 722-727). Thousand Oaks, CA: Sage.
- Daily, B. F., Bishop, J. W., & Govindarajulu, N. (2009). A conceptual model for organizational citizenship behavior directed toward the environment. *Business & Society*, 48(2), 243-256.
- d'Amato, A., & Herzfeldt, R. (2008). Learning orientation, organizational commitment and talent retention across generations: A study of European managers. *Journal of Managerial Psychology*, 23(8), 929-953.
- de Meuse, K. P., Bergmann, T. J., & Lester, S. W. (2001). An investigation of the relational component of the psychological contract across time, generation, and employment status. *Journal of Managerial Issues*, 13(1), 102-118.
- Eisenberger, R., Armeli, S., Rexwinkel, B., Lynch, P. D., & Rhoades, L. (2001). Reciprocation of perceived organizational support. *Journal of Applied Psychology*, 86(1), 42-51.
- Eisenberger, R., Cotterell, N., & Marvel, J. (1987). Reciprocation ideology. *Journal of Personality and Social Psychology*, 53(4), 743-750.

- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology, 71*(3), 500-507.
- Emerson, R. M. (1962). Power-dependence relations. *American Sociological Review, 27*(1), 31-41.
- Emerson, R. M. (1976). Social exchange theory. *Annual Review of Sociology, 2*, 335-362.
- Ferres, N., Travaglione, A., & Firms, I. (2003). Attitudinal differences between Generation-X and older employees. *International Journal of Organisational Behaviour, 6*(3), 320-333.
- Foa, U. G. (1971). Interpersonal and economic resources. *Science, 171*(3969), 345-351.
- Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American Sociological Review, 25*(2), 161-178.
- Graham, J. W. (1991). An essay on organizational citizenship behavior. *Employee Responsibilities and Rights Journal, 4*(4), 249-270.
- Greenberg, M. S. (1980). A theory of indebtedness. In K. J. Gergen, M. S. Greenberg, & R. H. Willis (Eds.), *Social Exchange: Advances in Theory and Research* (pp. 3-26). New York, NY: Plenum Press.
- Hart, D. W., & Thompson, J. A. (2007). Untangling employee loyalty: A psychological contract perspective. *Business Ethics Quarterly, 17*(2), 297-323.
- Hart, S. L. (1995). A natural-resource-based view of the firm. *Academy of Management Review, 20*(4), 986-1014.
- Hess, N., & Jepsen, D. M. (2009). Career stage and generational differences in psychological contracts. *Career Development International, 14*(3), 261-283.
- Homans, G. C. (1958). Social behavior as exchange. *American Journal of Sociology, 63*(6), 597-606.
- Huffman, A. H., & Klein, S. R. (2013). *Green organizations: Driving change with I-O psychology*. New York, NY: Routledge.
- Jackson, S. E., Ones, D. S., & Dilchert, S. (2012). *Managing human resources for environmental sustainability*. San Francisco, CA: Jossey-Bass.
- Jiang, R. J., & Bansal, P. (2003). Seeing the need for ISO 14001. *Journal of Management Studies, 40*(4), 1047-1067.
- Katz, D. (1964). The motivational basis of organizational behavior. *Behavioral Science, 9*(2), 131-146.

- Klein, H. J., Cooper, J. T., Molloy, J. C., & Swanson, J. A. (2014). The assessment of commitment: Advantages of a unidimensional, target-free approach. *Journal of Applied Psychology, 99*(2), 222-238.
- Klein, H. J., Molloy, J. C., & Brinsfield, C. T. (2012). Reconceptualizing workplace commitment to redress a stretched construct: Revisiting assumptions and removing confounds. *Academy of Management Review, 37*(1), 130-151.
- Kottke, J. L., & Sharafinski, C. E. (1988). Measuring perceived supervisory and organizational support. *Educational and Psychological Measurement, 48*(4), 1075-1079.
- Krebs, D. L. (1970). Altruism: An examination of the concept and a review of the literature. *Psychological Bulletin, 73*(4), 258-302.
- Lamm, E., Tosti-Kharas, J., & King, C. E. (2014). Empowering employee sustainability: Perceived organizational support toward the environment. *Journal of Business Ethics*. (In press).
- Lamm, E., Tosti-Kharas, J., & Williams, E. G. (2013). Read this article, but don't print it: Organizational citizenship behavior toward the environment. *Group & Organization Management, 38*(2), 163-197.
- Lavelle, J. J. (2010). What motivates OCB? Insights from the volunteerism literature. *Journal of Organizational Behavior, 31*(6), 918-923.
- Lawler, E. J. (2001). An affect theory of social exchange. *American Journal of Sociology, 107*(2), 321-352.
- Lawler, E. J., & Thye, S. R. (1999). Bringing emotions into social exchange theory. *Annual Review of Sociology, 25*, 217-244.
- Lawler, E. J., Thye, S. R., & Yoon, J. (2009). *Social commitments in a depersonalized world*. New York, NY: Russell Sage Foundation.
- LePine, J. A., Erez, A., & Johnson, D. E. (2002). The nature and dimensionality of organizational citizenship behavior: A critical review and meta-analysis. *The Journal of Applied Psychology, 87*(1), 52-65.
- Levi Strauss, C. (1949). *Les structures élémentaires de la parenté*. Paris, France: Presses Universitaires.
- Lub, X. D., Bijvank, M. N., Bal, P. M., Blomme, R. J., & Schalk, R. (2012) Different or alike? Exploring the psychological contract and commitment of different generations of hospitality workers. *International Journal of Contemporary Hospitality Management, 24*(4), 553-573.

- Lülf, R., & Hahn, R. (2013). Corporate greening beyond formal programs, initiatives, and systems: A conceptual model for voluntary pro-environmental behavior of employees. *European Management Review*, *10*(2), 83-98.
- Malinowski, B. (1922). *Argonauts of the western Pacific: An account of native enterprise and adventure in the archipelagoes of Melanesian New Guinea*. London, UK: Routledge.
- Mathieu, J. E., & Zajac, D. M. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological Bulletin*, *108*(2), 171-194.
- Mauss, M. (1923-4). Essai sur le don: Forme et raison de l'échange dans les sociétés archaïques, *L'Année Sociologique*, *1*(2), 30-186.
- Meglino, B. M., & Korsgaard, A. (2004). Considering rational self-interest as a disposition: organizational implications of other orientation. *Journal of Applied Psychology*, *89*(6), 946.
- Meyer, J. P., & Allen, N. J. (1997). *Commitment in the workplace: Theory, research, and application*. Thousand Oaks, CA: Sage.
- Meyer, J. P., Becker, T. E., & Vandenberghe, C. (2004). Employee commitment and motivation: a conceptual analysis and integrative model. *Journal of Applied Psychology*, *89*(6), 991.
- Meyer, J. P., & Herscovitch, L. (2001). Commitment in the workplace: Toward a general model. *Human Resource Management Review*, *11*(3), 299-326.
- Meyer, J. P., & Parfyonova, N. M. (2010). Normative commitment in the workplace: A theoretical analysis and re-conceptualization. *Human Resource Management Review*, *20*(4), 283-294.
- Meyer, J. P., Stanley, D. J, Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates and consequences. *Journal of Vocational Behavior*, *61*(1), 20-52.
- Molm, L. D., Schaefer, D. R., & Collett, J. L. (2007). The value of reciprocity. *Social Psychology Quarterly*, *70*(2), 199-217.
- Ones, D. S., & Dilchert, S. (2012). Environmental sustainability at work: A call to action. *Industrial and Organizational Psychology*, *5*(4), 444-466.
- O'Reilly, C. A., & Chatman, J. (1986). Organizational commitment and psychological attachment: The effects of compliance, identification, and internalization on prosocial behavior. *Journal of Applied Psychology*, *71*(3), 492-499.

- Organ, D. W. (1988). *Organizational citizenship behavior: The good soldier syndrome*. Lexington, MA: Lexington Books.
- Organ, D. W., Podsakoff, P. M., & MacKenzie, S. B. (2006). *Organizational citizenship behavior: Its nature, antecedents, and consequences*. Thousand Oaks, CA: Sage.
- Organ, D. W., & Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. *Personnel Psychology, 48*(4), 776-801.
- Paillé, P., Boiral, O., & Chen, Y. (2013). Linking environmental management practices and organizational citizenship behaviour for the environment: A social exchange perspective. *The International Journal of Human Resource Management, 24*(18), 3552-3575.
- Paillé, P., Chen, Y., Boiral, O., & Jin, J. (2014). The impact of human resource management on environmental performance: An employee-level study. *Journal of Business Ethics, 121*(3), 451-466.
- Paillé, P., & Mejía-Morelos, J. H. (2014). Antecedents of pro-environmental behaviours at work: The moderating influence of psychological contract breach. *Journal of Environmental Psychology, 38*, 124-131.
- Podsakoff, P. M., Ahearne, M., & MacKenzie, S. B. (1997). Organizational citizenship behavior and the quantity and quality of workgroup performance. *The Journal of Applied Psychology, 82*(2), 262-270.
- Podsakoff, P. M., & MacKenzie, S. B. (1994). Organizational citizenship behaviors and sales unit effectiveness. *Journal of Marketing Research, 31*(3), 351-363.
- Podsakoff, P.M., & MacKenzie, S. B. (1997). The impact of organizational citizenship behavior on organizational performance: A review and suggestion for future research. *Human Performance, 10*(2), 133-151.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879-903.
- Podsakoff, P. M., MacKenzie, S. B., Paine, J. B., & Bachrach, D. G. (2000). Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of Management, 26*(3), 513-563.
- Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. New York, NY: Simon and Schuster.
- Ramus, C. A., & Killmer, A. B. C. (2007). Corporate greening through prosocial extrarole behaviours—A conceptual framework for employee motivation. *Business Strategy and the Environment, 16*(8), 554-570.

- Reichers, A. E. (1985). A review and reconceptualization of organizational commitment. *Academy of Management Review*, 10(3), 465-476.
- Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology*, 87(4), 698-714.
- Schaninger, W. S., & Turnipseed, D. L. (2005). The workplace social exchange network: Its effect on organizational citizenship behavior, contextual performance, job satisfaction, and intention to leave. In D. L. Turnipseed (Ed.), *Handbook of organizational citizenship behavior: A review of 'good soldier' activity in organizations* (pp. 209-242). New York, NY: Nova Science.
- Settoon, R. P., Bennett, N., & Liden, R. C. (1996). Social exchange in organizations: Perceived organizational support, leader-member exchange, and employee reciprocity. *Journal of Applied Psychology*, 81(3), 219-227.
- Shrivastava, P. (1995). The role of corporations in achieving ecological sustainability. *Academy of Management Review*, 20(4), 936-960.
- Smith, A. M., & O'Sullivan, T. (2012). Environmentally responsible behaviour in the workplace: An internal social marketing approach. *Journal of Marketing Management*, 28(3/4), 469-493.
- Stringer, L. (2010). *The green workplace: Sustainable strategies that benefit employees, the environment, and the bottom line*. New York, NY: Palgrave Macmillan.
- Temminck, E., Mearns, K., & Fruhen, L. (2013). Motivating employees towards sustainable behaviour. *Business Strategy and the Environment*. (In press).
- Thibault, J. W., & Kelley, H. H. (1959). *The social psychology of groups*. New York: NY: Wiley.
- Thiétart, R-A., et al. (2007). *Méthodes de recherche en management*. Paris, France: Dunod.
- Thompson, J. A., & Bunderson, J. S. (2003). Violations of principle: Ideological currency in the psychological contract. *Academy of Management Review*, 28(4), 571-586.
- Trivers, R. L. (1971). The evolution of reciprocal altruism. *Quarterly review of biology*, 46(1), 35-57.
- Turnipseed, D. L., & Murkison, E. (2000). A bi-cultural comparison of organization citizenship behavior: Does the OCB phenomenon transcend national culture?. *International Journal of Organizational Analysis*, 8(2), 200-222.
- Twenge, J. M., Campbell, S. M., Hoffman, B. J., & Lance, C. E. (2010). Generational differences in work values: Leisure and extrinsic values increasing, social and intrinsic values decreasing. *Journal of Management*, 36(5), 1117-1142.

- Vandenberg, R. J., & Lance, C. E. (2000). A review and synthesis of the measurement invariance literature: Suggestions, practices, and recommendations for organizational research. *Organizational Research Methods*, 3(1), 4-69.
- Vandenberg, R., Lance, C., & Taylor, S. (2005). A latent variable approach to rating source of equivalence: Who should provide ratings on organizational citizenship behavior dimensions? In D. L. Turnipseed (Ed.), *Handbook of Organizational Citizenship Behavior: A Review of 'Good Soldier' Activity in Organizations* (pp. 109-141). New York, NY: Nova Science Publishers.
- Van Dyne, L., & Ellis, J. B. (2004). Job creep: A reactance theory perspective on organizational citizenship behavior as over-fulfillment of obligations. In J. A-M. Coyle-Shapiro, L. M. Shore, M. S. Taylor, & L. E. Tetrick (Eds.), *The Employment Relationship: Examining Psychological and Contextual Perspectives* (pp. 181-205). Oxford, UK: Oxford University Press.
- Van Dyne, L., Graham, J. W., & Dienesch, R. M. (1994). Organizational citizenship behavior: Construct redefinition, measurement, and validation. *Academy of management Journal*, 37(4), 765-802.
- Wayne, S. J., Shore, L. M., & Liden, R. C. 1997. Perceived organizational support and leader-member exchange: A social exchange perspective. *Academy of Management Journal*, 40(1), 82-111.
- Wegener, D. T., & Fabrigar, L. R. (2000). Analysis and design for nonexperimental data: Addressing causal and noncausal hypotheses. In H. T. Reis and C. M. Judd (eds.), *Handbook of research methods in social and personality psychology* (pp. 412-450). New York, NY: Cambridge University Press.
- Williams, L. J., Edwards, J. R., & Vandenberg, R. J. (2003). Recent advances in causal modeling methods for organizational and management research. *Journal of Management*, 29(6), 903-936.
- Zafirovski, M. (2005). Social exchange theory under scrutiny: A positive critique of its economic-behaviorist formulations. *Electronic Journal of Sociology*, 2, 1-40.

Chapitre/Article 1. Organizational citizenship behavior: An intergenerational study

2.1 Abstract

While the colloquial literature on generations has become a quilt of clichés, attempts to systematically examine generational differences in the workplace have been scarce and the results inconsistent. In this study, we use social exchange theory to investigate whether membership in the Baby Boomers versus the Generation X group influences the relationships of organization- and colleague-directed support and commitment with organizational citizenship behavior. By means of a multisample analysis, we show that both cohorts ultimately share more resemblances than dissimilarities. However, our findings support the popular belief that Generation X is less willing to exchange desirable work outcomes for employer support. Implications are discussed.

Keywords: Organizational citizenship behavior, Commitment, Generation, Social exchange, Support, Baby Boomers, Generation X

Article 1. Les comportements de citoyenneté organisationnelle: une étude intergénérationnelle

Résumé

Alors que les clichés générationnels sont devenus monnaie courante dans la littérature populaire, peu d'études examinent d'une manière systématique la réalité des différences intergénérationnelles en milieu de travail. De plus, les résultats sont généralement inconsistants et contradictoires. Dans cet article, nous faisons appel à la théorie de l'échange social pour déterminer si l'appartenance à un groupe générationnel, celui des baby-boomers versus celui de la génération X, influence les relations entre le soutien perçu de l'organisation et des collègues, l'engagement envers l'organisation et les collègues, et les comportements de citoyenneté organisationnelle. Dans le cadre du modèle proposé, le test d'invariance indique qu'il existe davantage d'affinités que de différences entre les deux cohortes. Cependant, nos résultats soutiennent l'idée communément admise selon laquelle les membres de la génération X seraient moins disposés à échanger des attitudes et comportements positifs en retour du soutien de leur employeur. Les implications sont discutées.

Mots-clés: Comportements de citoyenneté organisationnelle, Engagement, Génération, Échange social, Soutien perçu, Baby-boomers, Génération X

2.2 Introduction

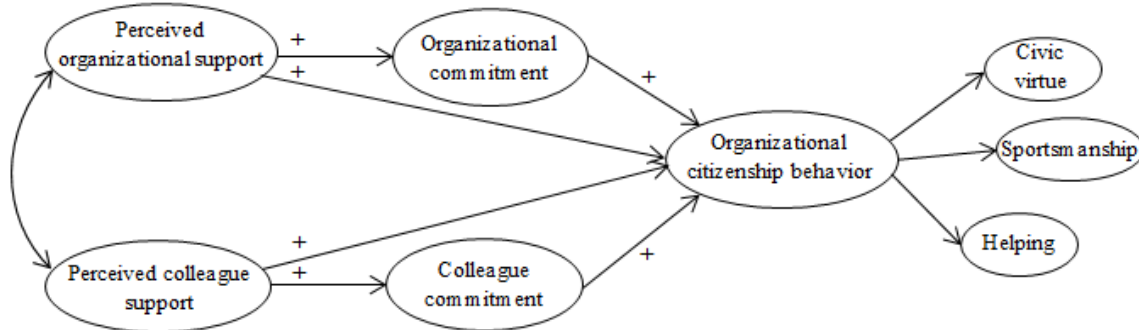
In recent years, general media, popular press and work seminars have led employees and managers to believe in the existence of legitimate intergenerational differences that need to be addressed in the workplace. Business practitioners, especially those within human resources departments, have become increasingly concerned with the so-called challenges of multigenerational management and its potential impact on organizational performance (Benson & Brown, 2011). Built on the idea that different generations possess different mind-sets, ways of thinking, acting and behaving, companies have been attempting to adapt and tailor their policies to draw out the best from each generational group (Campbell, Hoffman, Campbell, & Marchisio, 2011). However, comprehension of generational characteristics and their effects on work outcomes is based on disputed and limited data. Indeed, the assumptions reflected in popular literature are often anchored in stereotypes derived from idiosyncratic examples, while research examining generational differences from the human resources perspective has been scarce, in addition to reporting mixed results (e.g., Benson & Brown, 2011; Brunetto, Farr-Wharton, & Shacklock, 2011; Cennamo & Gardner, 2008; d'Amato & Herzfeldt, 2008; Hess & Jepsen, 2009; Wallace, 2006). In this respect, only a handful of studies (Klammer, Skarlicki, & Barclay, 2002; Lamm & Meeks, 2009; Lub, Blomme, & Bal, 2011; Shragay & Tziner, 2011) have focused on employee extra-role performance and its antecedents. Clearly, more research is needed to assess the reality of generational differences and the extent to which they influence individual orientations in the workplace.

The purpose of this paper is to address the aforementioned limitations by examining the generational effect on the relationships of organization- and colleague-directed support and commitment with organizational citizenship behavior (OCB) (see Figure 1). Social exchange theory is used as a basis for understanding attitudes toward reciprocity of the two prominent generational groups in today's workforce, the Baby Boomers and Generation X (Smola & Sutton, 2002). In so doing, this study contributes to the generational, social exchange and OCB literature by extending recent research (e.g., Bishop, Scott, & Burroughs, 2000; Benson & Brown, 2011). Our findings support the idea that Baby

Boomers are generally more inclined to exchange commitment and citizenship behavior for employer support than members of Generation X. However, the data indicate no significant differences across cohorts in their exchange relationships with colleagues.

The paper begins with an introduction to the social exchange theory, followed by an overview of the literature on generations and their relevant differences. Next, the research hypotheses are developed, albeit with caution, regarding somewhat disputed generational characteristics. The research method, analytical sequence and results are then presented. Finally, the implications of the paper are discussed in the context of the generational, social exchange and OCB literature.

Figure 1: Research model



Note. Parameters for the measurement portion and disturbance terms are not presented for the sake of parsimony.

2.3 Theoretical background

2.3.1 Social exchange theory

According to Cropanzano and Mitchell (2005, p. 874), “social exchange theory (SET) is among the most influential conceptual paradigms for understanding workplace behavior.” SET explains the regulation of social relations based on a powerful and general premise: the norm of reciprocity (Gouldner, 1960). While the reciprocation ideology seems to be widely shared among individuals, levels of mutuality, however, differ, depending on individual orientation (Eisenberger, Cotterell, & Marvel, 1987; Eisenberger, Huntington, Hutchison, & Sowa, 1986). Indeed, contrary to economic trade, social exchange is discretionary, and the form, degree or time of reciprocation are neither specified nor enforceable (Blau, 1964). Although the norm suggests equivalence in terms of help received and returned, the value placed on the exchange relationship is idiosyncratic. This means that a person will feel obligated to a donor (e.g., an organization, supervisor or colleague) only when he or she is freely provided with something he/she cares about (Schaninger & Turnipseed, 2005). In short, people tend to reward volitional and positive dispositions toward themselves, by returning the benefits they perceive having received.

Given these considerations, work experiences fostering employee perceptions of support, trust and justice have been found to contribute to the social exchange dynamic (Aryee, Budhwar, & Chen, 2002; Moorman, Blakely, & Niehoff, 1998; Stinglhamber, de Cremer, & Mercken, 2006). Of most importance is perceived organizational support (POS): through reciprocity, it promotes desirable work outcomes such as commitment or citizenship behavior. In other words, the greater the POS, the more likely are employees to identify with, and make voluntary extra efforts on behalf of the organization (cf. Rhoades & Eisenberger, 2002). Support has also been examined at the supervisory (e.g., Eisenberger, Stinglhamber, Vandenberghe, Sucharski, & Rhoades, 2002) and colleague level (e.g., Bishop et al., 2000; Pearce & Herbik, 2004; Paillé, 2012), providing similar results. Although a considerable amount of research has been conducted on organizational and supervisor foci of support, the colleague entity is in need of greater attention (Bishop, Scott,

Goldsby, & Cropanzano, 2005; Howes, Cropanzano, Grandey, & Mohler, 2000). Similarly, studies on social exchange theory have been limited in the generational context (e.g., Benson & Brown, 2011; Brunetto et al., 2011; Hess & Jepsen, 2009) and the present paper fills a gap in this respect. With the core ideas that comprise SET succinctly introduced, we can now turn to a review of the generational literature.

2.3.2 The generation concept

A generation is usually viewed as a group of people that share years of birth and unique socio-political life events during their formative years which, in turn, generate and structure relatively stable, albeit not immutable, individual practices and worldviews (Eyerman & Turner, 1998; Mannheim, 1952; Schuman & Scott, 1989), including ways of thinking, acting and behaving in the workplace (Arsenault, 2004; Kupperschmidt, 2000; Smola & Sutton, 2002). However, arguments have been raised regarding the reality and meaning of birth cohorts. While some scholars tend to support the historical, sociological and cultural foundations underlying the generational principles (e.g., Campbell et al., 2011; Dencker, Joshi, & Martocchio, 2008; McMullin, Comeau, & Jovic, 2007), others are more skeptical and argue that differences based on age location are chiefly attributable to experience or to the maturation process (e.g., de Meuse, Bergmann, & Lester, 2001; Jorgensen, 2003). Nonetheless, in the absence of longitudinal studies, the small number of research using data collected across time (Smola & Sutton, 2002; Twenge, Campbell, Hoffman, & Lance, 2010) suggest that work values are influenced more by generation than by experience and maturation effects.

While the literature identifies as many as six generational groups, the most prevalent in today's workforce are the Baby Boomers (Boomers) and Generation X (GenX). Despite some discrepancies concerning the birth years that encompass both groups, it is generally accepted that Boomers were born in the mid-1940s to the mid-1960s, and that GenX is comprised of individuals born from the mid-1960s to the early 1980s (Scott-Ladd, Travaglione, Perryer, & Pick, 2010; Shragay & Tziner, 2011; Twenge et al., 2010). The presumed solidarity and affinities among each 20-year-span cohort are thought to be

formed through social upheaval, such as wars or recessions, as well as the surrounding political and cultural background experienced in youth, when people are coming of age and constructing the self, the effects of which serve to distinguish one generation from another (Jurkiewicz & Brown, 1998; Kupperschmidt, 2000; McMullin et al., 2007).

Baby Boomers grew up in times of economic prosperity and full employment in the wake of World War II, when most companies tended to offer well-defined lifetime career structures (Schuman & Scott, 1989; d'Amato & Herzfeldt, 2008). Hence, they are often described as optimistic, valuing job security and stable work environments. They also seem to believe that one should pay membership dues to the organization through hard work and long-term commitment (Kupperschmidt, 2000; Smola & Sutton, 2002). In contrast, the formative years of Generation X were influenced by mass media and technological breakthroughs in a world marked by a series of economic downturns and the end of the Cold War (Schuman & Scott, 1989; Park & Gursoy, 2012). Its members witnessed their parents' occupational insecurity in a period of rapid change and high unemployment, which resulted in increased family instability. As a result, members of GenX are assumed to be independent and adaptable workers who developed a suspicious and cynical view toward the employee-organization relationship (Jurkiewicz & Brown, 1998; Kupperschmidt, 2000; Smola & Sutton, 2002), leading them to commit to their careers and the people they work with rather than their employer as a whole (Neil, 2010; Shragay & Tziner, 2011). In short, the Boomers and GenX are presumed to possess differentiated work orientations and values, thus distinct patterns of organizational behavior.

Although the lack of strong empirical evidence makes it difficult to fully appreciate the extent to which these characterizations are based on representative (as opposed to anecdotal) differences (Benson & Brown, 2011; Park & Gursoy, 2012), they provide generational ideal-types that can be confronted with reality (Lub, Bijvank, Bal, Blomme, & Schalk, 2012; McMullin et al., 2007). Accordingly, it would not be unreasonable to think that in a social exchange relationship, members from GenX (in comparison with the Boomers) would exhibit reciprocation wariness toward positive appreciation and support received from their employer. Their perception of company benevolence could be

influenced by their supposed skepticism regarding the organizational and managerial context. Indeed, people who suspect being taken advantage of and are doubtful of the motives underlying others' favorable treatment appear to exercise greater caution in reciprocating help and tend not to contribute much to a social relationship (Eisenberger et al., 1987). However, it has also been reported that workers from GenX tend to be more responsive to colleague recognition and encouragement (Wallace, 2006; Benson & Brown, 2011). In other words, considering several foci is of critical interest when examining intergenerational differences toward support and reciprocity, the expression of which is generally found in employee commitment and organizational citizenship behavior (Cropanzano & Mitchell, 2005; Rhoades & Eisenberger, 2002).

While organization theory has explored support, commitment and OCB extensively, attempts to compare these variables across generations have been scarce, and the results inconsistent. For instance, Brunetto et al. (2011) and d'Amato and Herzfeldt (2008) maintain that the Baby Boomers are more committed to their organization as a whole than Generation X, whereas the data of Benson and Brown (2011), Ferres, Travaglione, and Firms (2003) and Lub et al. (2012) indicate no significant difference in the level of organizational commitment between these generations. It is also worth noting that where differences have been suggested, support contributed to explain commitment for both cohorts (Brunetto et al., 2011; James, McKechnie, & Swanberg, 2011). Namely, results based on mean differences predominant in the literature do not clarify the generational effect on the relationships of work attitudes and behaviors. Although some studies have used regression models and provided substantial contributions in this respect (e.g., Benson & Brown, 2011; Cennamo & Gardner, 2008; Hess & Jepsen, 2009; Lamm & Meeks, 2009; Park & Gursoy, 2012; Shragay & Tziner, 2011; Wallace, 2006), this method of analysis (as opposed to the structural equation modeling used here) does not allow simultaneous estimates of direct and indirect relationships between latent variables by considering the structural model as a whole. Consequently, this paper aims to bridge the gap in the research by answering the following two questions. First, does the influence of perceived support on commitment, and in turn, commitment on OCB, differ between the Boomers and GenX?

Second, do different foci of support and commitment, i.e., the organization and the colleague, contribute to explaining these differences?

2.4 Research hypotheses

2.4.1 Perceived support and employee commitment

As mentioned, the norm of reciprocity forms the basis of social exchange relationships and perceived organizational support is crucial to this dynamic in the workplace. Indeed, many studies have found that employees are prone to exchange desirable work outcomes for employer support, not least their commitment to the organization as a whole (cf. Cropanzano & Mitchell, 2005; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002; Rhoades & Eisenberger, 2002). Commitment is defined as the relative strength of an individual's affective bond to a particular organization, reflecting his or her state of psychological attachment (Allen & Meyer, 1990; O'Reilly & Chatman, 1986). This attitude is of value, because it expresses adherence to company objectives as well as the desire to exert great effort on behalf of, and to maintain employment in, the organization (Mowday, Steers, & Porter, 1979; Porter, Steers, Mowday, & Boulian, 1974). The more employees feel that they are being esteemed and cared about, the more inclined they are to return the favor through equivalence in mutuality. That is, the greater the POS, the greater the organizational commitment. In this respect, the meta-analyses conducted by Meyer et al. (2002) and Rhoades and Eisenberger (2002) report strong positive relationships between POS and affective commitment: $r_c = .63$ ($k = 18, N = 7,128$) and $.73$ ($k = 42, N = 11,706$), respectively.

Following the development by Reichers (1985) and Becker (1992), it is now widely accepted that employees can commit to several foci other than the organization, such as the supervisor or colleagues (Becker, Billings, Eveleth, & Gilbert, 1996; Cohen, 2003; Meyer & Allen, 1997). Although supervisory and organizational foci of support are conceptually distinct, Eisenberger et al. (2002) argue that perceived supervisor support is an antecedent of POS, suggesting that employees tend to identify supervisors with the organization rather

than construing their actions as chiefly idiosyncratic. Given this consideration, it was decided not to include the supervisor target in this research. Colleagues, however, generally have the same status as the focal employee, i.e., they share the same condition of subordination, which makes their actions less likely to be confounded with those of the organization (Chiaburu & Harrison, 2008). Indeed, perceived colleague support (PCS), defined as the extent to which employees believe their peers value their contribution and are concerned about their well-being (Bishop et al., 2000), and colleague commitment, which refers to the psychological state that binds two or more colleagues (Pearce & Herbig, 2004), have been empirically distinguished from POS and organizational commitment (Bishop et al., 2005). The extent to which coworkers have benevolent dispositions toward each other and experience positive interpersonal relationships was also found critical to explain attachment to colleagues (Vandenberghe, Bentein, & Stinglhamber, 2004). In other words, employees seem to engage in social exchange relationships with their peers whereby PCS is positively related to colleague commitment (Bishop et al., 2000; Howes et al., 2000; Pearce & Herbig; 2004; Paillé, 2009, 2012).

Last, despite the interest shown by Benson and Brown (2011) and Wallace (2006) in PCS, no research has explored the generational differences in the relationships between organization- and colleague-directed support and commitment. Nonetheless, the literature on generations suggests that Boomers are more engaged toward their employer as a whole, whereas members of GenX (GenXers) are more responsive to rewarding relationships with colleagues (Neil, 2010; Park & Gursoy, 2012; Shragay & Tziner, 2011). Therefore, it would be conceivable that:

Hypothesis 1a: Boomers will show a significantly stronger positive relationship between POS and commitment to the organization than GenXers.

Hypothesis 1b: GenXers will show a significantly stronger positive relationship between PCS and commitment to colleagues than Boomers.

2.4.2 *Organizational citizenship behavior*

OCB is typically defined as “individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the (efficient and) effective functioning of the organization” (Organ, 1988, p. 4; Organ, Podsakoff, & MacKenzie, 2006, p. 3). In other words, OCB concerns employees’ most voluntary and spontaneous contributions, which manifest the willingness to make extra efforts on behalf of the organization beyond prescriptions. The major forms of OCB derived from the dimensions developed by Organ (1988) are helping behaviors (e.g., assisting others with work-related problems or defusing interpersonal disagreements), civic virtue (e.g., keeping abreast of, and participating in, the life of the company) and sportsmanship (e.g., not complaining about trivial matters) (Podsakoff & MacKenzie, 1994). These individual actions, albeit mundane, contribute to smoothing the workflow and, ultimately, enhancing performance at both the group (Podsakoff, Ahearne, & MacKenzie, 1997) and organizational levels (Podsakoff & MacKenzie, 1994). Research also indicates that employee commitment to the organization is one of the key variables in the development of OCB, meaning the greater the organizational commitment, the higher the level of citizenship behavior. In this respect, the meta-analyses conducted by LePine, Erez, and Johnson (2002) and Meyer et al. (2002) report positive relationships between (affective) commitment and OCB: $r_c = .20$ ($k = 17, N = 5,133$) and $.32$ ($k = 22, N = 6,227$), respectively.

Although some scholars (e.g., Williams & Anderson, 1991) have broken down OCB into actions directed toward individuals (e.g., helping behaviors) and actions directed toward the employer (e.g., civic virtue, sportsmanship), the findings of LePine and colleagues (2002, p. 61) support consideration of Organ’s (1988) OCB as a latent concept with dimensions that “should be thought of as somewhat imperfect indicators of the same underlying construct.” Thus, consistent with the substantive definition of OCB and the contribution of LePine et al.’s systematic review, this paper does not distinguish in the development of research hypotheses between dimensionalities of OCB (OCB is operationalized as a second-order latent construct, in line with the mainstream). With respect to attitudinal

antecedents of citizenship behavior, colleague commitment has been found, over and above organizational commitment, to account for unique variance in overall OCB (Bishop et al., 2000). Hence, identification with peers is thought to increase the propensity of the focal employee to make contributions that go beyond the strict job description.

Further, OCB clearly falls within social exchange theory; it is based on choice and volition, and it constitutes a form of reciprocation for the benevolent dispositions and favorable treatments received (Organ et al., 2006). This means that support provided by the organization (Rhoades & Eisenberger, 2002) and colleagues (Deckop, Cirka, & Andersson, 2003) is expected, separately, to directly influence the level of employees' discretionary efforts. In the generational context however, little research (Klammer et al., 2002; Lamm & Meeks, 2009; Lub et al., 2011; Shragay & Tziner, 2011) has been conducted on OCB, and neither organizational nor colleague support or commitment have been tested in relation to citizenship behavior. Nonetheless, given that GenXers (in comparison with the Boomers) appear less tempted to return favors from, or to identify with, the company and prefer instead to develop interpersonal bonds and reciprocal relationships with coworkers (Benson & Brown, 2011; Neil, 2010; Park & Gursoy, 2012; Shragay & Tziner, 2011; Wallace, 2006), it would seem reasonable to surmise that:

Hypothesis 2a: Boomers will show a significantly stronger positive relationship between commitment to the organization and OCB than GenXers.

Hypothesis 2b: GenXers will show a significantly stronger positive relationship between commitment to colleagues and OCB than Boomers.

Hypothesis 3a: Boomers will show a significantly stronger positive relationship between POS and OCB than GenXers.

Hypothesis 3b: GenXers will show a significantly stronger positive relationship between PCS and OCB than Boomers.

2.5 Method

2.5.1 Participants

Data were collected from 943 public employees of a Quebec government agency. They voluntarily completed a survey distributed during work hours with the support of the agency. Participants were informed that their answers would remain strictly confidential. A total of 704 completed and usable questionnaires were returned, for an overall response rate of 74.7%. Although such a response rate is excellent (Babbie, 2007), we controlled for non-response bias by comparing early and late (10%) respondents in terms of selected variables (Armstrong & Overton, 1977). Since no significant difference was observed, non-response bias did not appear to be a threat to external validity.

With 444 Baby Boomers (born between 1944 and 1963) and 238 members of Generation X, (born between 1964 and 1983), the final sample consisted of 682 public sector employees. Some 75% of the respondents were females (in the same proportion between Boomers and GenXers), 59% had tenure, i.e., permanent status (Boomers: 66%; GenXers: 46%), and 25% possessed a postgraduate degree (Boomers: 24%; GenXers: 28%). Nearly half of the Boomers (49%) had a minimum of twenty years of professional experience, while almost the same proportion of GenXers (44%) had been working in the public sector for less than five years. Although the gender distribution is skewed, this is consistent with the data from the government of Quebec, which employs a majority of women (Secretary of the Conseil du Trésor, 2010).

2.5.2 Measurement

As the study was conducted in a French-language context, English versions of the measures included in the survey were translated into French following a standard translation-backtranslation procedure (Brislin, 1980). Based on a Likert-type scale, all items were

measured on a 10-point scale ranging from 1 = *completely disagree* to 10 = *completely agree*.

Perceived organizational support and perceived colleague support. For practical reasons, POS was measured with three high-loading items from the short version of the Survey of Perceived Organizational Support (items 1, 4 and 9, with factor loadings of .71, .74 and .83, respectively; Eisenberger et al., 1986). According to Rhoades and Eisenberger (2002), this is a common practice that does not appear problematic, since the original scale is unidimensional and has high internal reliability (Cronbach's $\alpha = .97$; Eisenberger et al., 1986). Both facets of the definition of POS were represented, that is, valuation of employee contributions and care about employee well-being. To measure PCS, the same items were adapted by substituting the term colleagues for organization. This is consistent with most studies measuring perceived support of foci other than the organization, for instance, the supervisor (Eisenberger et al., 2002; Stinglhamber et al., 2006) or colleagues (Bishop et al., 2000; Howes et al., 2000). PCS scales have demonstrated good levels of internal reliability in previous research ($\alpha = .90$; Bishop et al., 2000).

Organizational commitment and colleague commitment. Affective commitment to the organization was measured with three items from the scale developed by Vandenberghe, Stinglhamber, Bentein, and Delhaise (2001; $\alpha = .82$). The measure was validated in its full six-item version (Vandenberghe et al., 2004) as well as in a shortened four-item form (Bentein, Stinglhamber, & Vandenberghe, 2002). Based on the same literature, affective commitment to colleagues was measured using a three-item short form (Bentein et al., 2002) of the scale developed by Vandenberghe et al. (2001; $\alpha = .89$).

Organizational citizenship behavior. OCB was measured with nine items from the scale developed by Podsakoff and MacKenzie (1994; $\alpha = .92$). Helping, civic virtue and sportsmanship ($\alpha = .89$, .82 and .84, respectively; Podsakoff & MacKenzie, 1994) were each represented by three items. Descriptive statistics appear in Tables 1 and 2 (the correlation matrix is available upon request from the authors).

2.5.3 Data analysis

We examined the hypothesized differences across generations (the Boomers and GenX) with the EQS 6.1 structural equation modeling (SEM) program (Bentler, 2006), by means of a multi-sample invariance analysis. SEM provides a strong statistical framework for testing hypotheses concerning multiple populations as well as complex causal relationships. First, SEM allows simultaneous cross-group comparisons of the measurement scales; and second, estimations of direct and indirect relationships between latent variables are made by considering the structural model as a whole. We performed our analyses using the robust covariance matrix by the Satorra-Bentler maximum likelihood procedure to deal with multivariate non-normality of the data (Satorra & Bentler, 1986, 1988). This method of estimation accepts the standard normal theory, but scales the test statistics in relation to non-normality of observations (Bentler, 2006).

Before testing our hypotheses, preliminary analyses were conducted in order to assess the measurement model and the common method variance using confirmatory factor analysis (CFA). Consistent with the multi-sample invariance method, we then considered the hypothesized model for each population and analyzed the equivalence of sets of parameters in a nested sequence of configural, metric and structural invariance tests (Hair, Black, Babin, & Anderson, 2010; Vandenberg & Lance, 2000). This procedure evaluates how the successive imposition of equality constraints affects model fit and identifies any untenable inter-group restriction.

Estimations were based on the Satorra-Bentler chi-square ($SB\chi^2$), the non-normed fit index (NNFI), the comparative fit index (CFI) and the root mean square error of approximation (RMSEA) robust statistics (Bentler, 2006). Concurrent values lower than .05 or .08 for the RMSEA and greater than .95 or .90 for both the NNFI and CFI are reflective of good and acceptable fit to the data, respectively (Marsh, Hau, & Wen, 2004; Medsker, Williams, & Holahan, 1994). Non-invariance between groups was accepted when the difference in $SB\chi^2$ showed a significant decrement in model fit, and when the probability

level of the equality constraints as determined by the Lagrange Multiplier Test (Silvey, 1959) was below .05 (Byrne, 1994; Chou & Bentler, 1990).

2.6 Results

2.6.1 Preliminary analyses

CFA was used to estimate the full measurement model with the seven scales and twenty-one items. The results indicate that the model fits the data well ($SB\chi^2_{(168)} = 419.65$; NNFI = .95; CFI = .96; RMSEA = .05). As Table 1 shows, the measures demonstrated satisfactory levels of composite reliability (CR) with values higher than .70 (Hair et al., 2010; Nunnally & Bernstein, 1994). Following Fornell and Larcker (1981), all scales verified convergent validity at both the item and construct level, with the exception of sportsmanship. Although its factor loadings are above the .50 threshold, the average variance extracted (AVE) by the factor is a little below the recommended cutoff (.46 versus .50), showing that the variance due to measurement error is larger than the variance captured by the construct. However, while the validity of the sportsmanship instrument *per se* is questionable, the AVE from the second-order measure of organizational citizenship behavior (.56) is acceptable.

The scales also ratified discriminant validity as each construct shared more variance with its items than it did with other constructs in the model (Fornell & Larcker, 1981). Namely, the AVE by a construct was greater than the squared correlations between the factors (see Table 2, the square root of the AVE for each factor appears in the diagonal of the correlation matrix). Overall, the psychometric properties of the measurement model in terms of reliability, convergent validity and discriminant validity were thus satisfactory.

Table 1: Reliability and convergent validity of the scales

Scales	Factor Loading	CR	AVE
Perceived organizational support (Cronbach's $\alpha = .95$)		.95	.86
My employer really cares about my well-being	.94		
My employer considers my aspirations and values	.94		
My employer appreciates my contribution	.90		
Perceived colleague support ($\alpha = .87$)		.88	.71
My colleagues consider my aspirations and values	.89		
My colleagues really care about my well-being	.82		
My colleagues appreciate my contribution	.81		
Affective commitment to the organization ($\alpha = .93$)		.93	.81
I am proud to belong to (name of agency)	.94		
(Name of agency) has a great deal of personal meaning for me	.93		
I really feel that I belong in (name of agency)	.84		
Affective commitment to colleagues ($\alpha = .93$)		.93	.82
My work group means a lot to me	.93		
I feel proud to be a member of my work group	.92		
I really feel that I belong in my work group	.86		
Helping ($\alpha = .85$)		.86	.66
I act as a "peacemaker" when others in the agency have disagreements	.86		
I take steps to try to prevent problems with other personnel in the agency	.85		
I am a stabilizing influence in the agency when dissention occurs	.73		
Civic virtue ($\alpha = .76$)		.78	.56
I attend and actively participate in agency meetings	.85		
I attend information sessions that agents are encouraged but not required to attend	.85		
I attend functions that are not required but help the agency image	.50		
Sportsmanship ($\alpha = .71$)		.72	.46
I focus on what is wrong with the agency rather than the positive side of it (R)	.70		
I tend to make problems bigger than they are at work (R)	.67		
I always find fault with what the agency is doing (R)	.67		
% Variance explained	69.56		

Note. Measurement model. $N = 682$ for all variables. Satorra-Bentler $\chi^2_{(168)} = 419.65$; robust non-normed fit index (NNFI) = .95; robust comparative fit index (CFI) = .96; robust root mean square error of approximation (RMSEA) = .05. (R) indicates item is reverse scored; CR, composite reliability; AVE, average variance extracted.

Table 2: Mean, standard deviation and discriminant validity of the scales

Latent variables	Factor	SD	1	2	3	4	5	6	7
	Mean								
1. Perceived organizational support	6.30	2.69	.93						
2. Perceived colleague support	7.70	1.85	.46**	.84					
3. Affective commitment to the organization	7.03	2.49	.55**	.44**	.90				
4. Affective commitment to colleagues	7.69	2.13	.54**	.59**	.63**	.91			
5. Helping	5.76	2.36	.14**	.22**	.23**	.26**	.81		
6. Civic virtue	6.94	2.28	.35**	.49**	.46**	.46**	.43**	.75	
7. Sportsmanship	7.60	1.82	.21**	.34**	.37**	.30**	.05	.22**	.68

Note. $N = 682$ for all variables. The diagonal entries are the square roots of the AVE (average variance extracted); sub-diagonal entries are the correlations among the latent factors.

** $p < .01$.

As the study was cross-sectional and used self-report measures, we controlled for common method bias to ensure that systematic error variance did not account for the observed relationships between the constructs. Following Podsakoff, MacKenzie, Lee, and Podsakoff (2003), we re-estimated the measurement model with a common latent method factor added to the constructs' indicators to partition the variance between trait, method and random error. For identification purposes, the method factor loadings were constrained to be equal. The results indicated no improvement in fit indices ($SB\chi^2_{(167)} = 416.73$, $\Delta SB\chi^2_{(1)} = 2.67$, $p > .05$; NNFI = .95; CFI = .96; RMSEA = .05). Further, the method factor represented only a small portion (11%) of the total variance, suggesting that common method variance was not a serious threat to the validity of our findings.

2.6.2 Multi-sample invariance analysis

Using the steps recommended by Bentler (2006), we conducted a multi-sample analysis to compare the strengths of the relationships between the latent variables under study. First of all, the hypothesized model (see Figure 1) was considered individually for each group. The relations found to be statistically non-significant, one for the Baby Boomers and two for Generation X, were excluded and the modified models re-estimated. As Table 3 shows, the

fit was acceptable, separately, in the two samples (Boomers, $SB\chi^2_{(178)} = 380.75$; NNFI = .94; CFI = .95; RMSEA = .05; GenX, $SB\chi^2_{(179)} = 349.45$; NNFI = .91; CFI = .92; RMSEA = .06). Although it is tempting to draw inferences based on the observed differences (see Figure 2), the ratification of measurement invariance is a prerequisite to meaningful comparisons (Vandenberg & Lance, 2000).

Therefore, the second step consisted of verifying the invariance of the instrument of measurement. This refers to a nested sequence of tests on the equivalence of the conceptual framework (configural invariance), and factor-loading calibration (metric invariance) across samples. Because one relationship between the factors was found non-invariant in the previous stage, we performed a partial configural invariance analysis (Steenkamp & Baumgartner, 1998). Both individual models, the Boomers ($N = 444$) and GenXers ($N = 238$), were estimated simultaneously with no inter-group restrictions. The results yielded an adequate fit to the data ($SB\chi^2_{(357)} = 734.08$; NNFI = .93; CFI = .94; RMSEA = .06), demonstrating that the respondents of both generations shared the same frame of reference in defining the latent constructs. After constraining the factor loadings to be equal across samples, the $\Delta SB\chi^2$ test suggested no significant change in model fit ($\Delta SB\chi^2_{(14)} = 15.43$, $p > .05$), thus ratifying the metric and measurement invariance. Then, from Figure 2 it became clear that hypothesis 2a was in part supported, as members of GenX exhibited strictly no relationship (as opposed to a lower relationship than Boomers) between commitment to the organization and OCB. However, hypothesis 3a was rejected, since neither group presented a direct link between organizational support and OCB.

Thereafter, we assessed the structural invariance by adding inter-group equality constraints to freely estimated factor relationships. Because the decrement in model fit was significant in comparison to the metric model (see Table 3, $\Delta SB\chi^2_{(7)} = 18.22$, $p < .05$), we released the constraint relative to the regression path between organizational support and organizational commitment, as suggested by the Lagrange Multiplier Test ($p < .05$, Bentler, 2006; Byrne, 1994; Chou & Bentler, 1990). Hypothesis 1a was thus supported. Finally, the results suggested no significant change in model fit compared to the metric model ($\Delta SB\chi^2_{(6)} = 9.65$, $p > .05$), indicating partial structural equivalence. In other words,

hypotheses 1b, 2b and 3b were rejected, i.e., the relationships between colleague support, colleague commitment and OCB were not statistically different across generations.

Mediation tests also indicated that the indirect effects of POS on OCB in the Boomers sample and PCS on OCB in both populations were significant at $p < .05$. Following Sobel (1987), we used the maximum likelihood and standard errors of direct path coefficients to construct a 95% confidence interval for the indirect effect. For the Boomers, the full indirect effect of POS on OCB was 0.12 ± 0.05 and the partial indirect effect of PCS on OCB was 0.09 ± 0.07 . With respect to GenXers, the partial indirect effect of PCS on OCB was 0.14 ± 0.08 .

Table 3: Fit indices and results of invariance tests

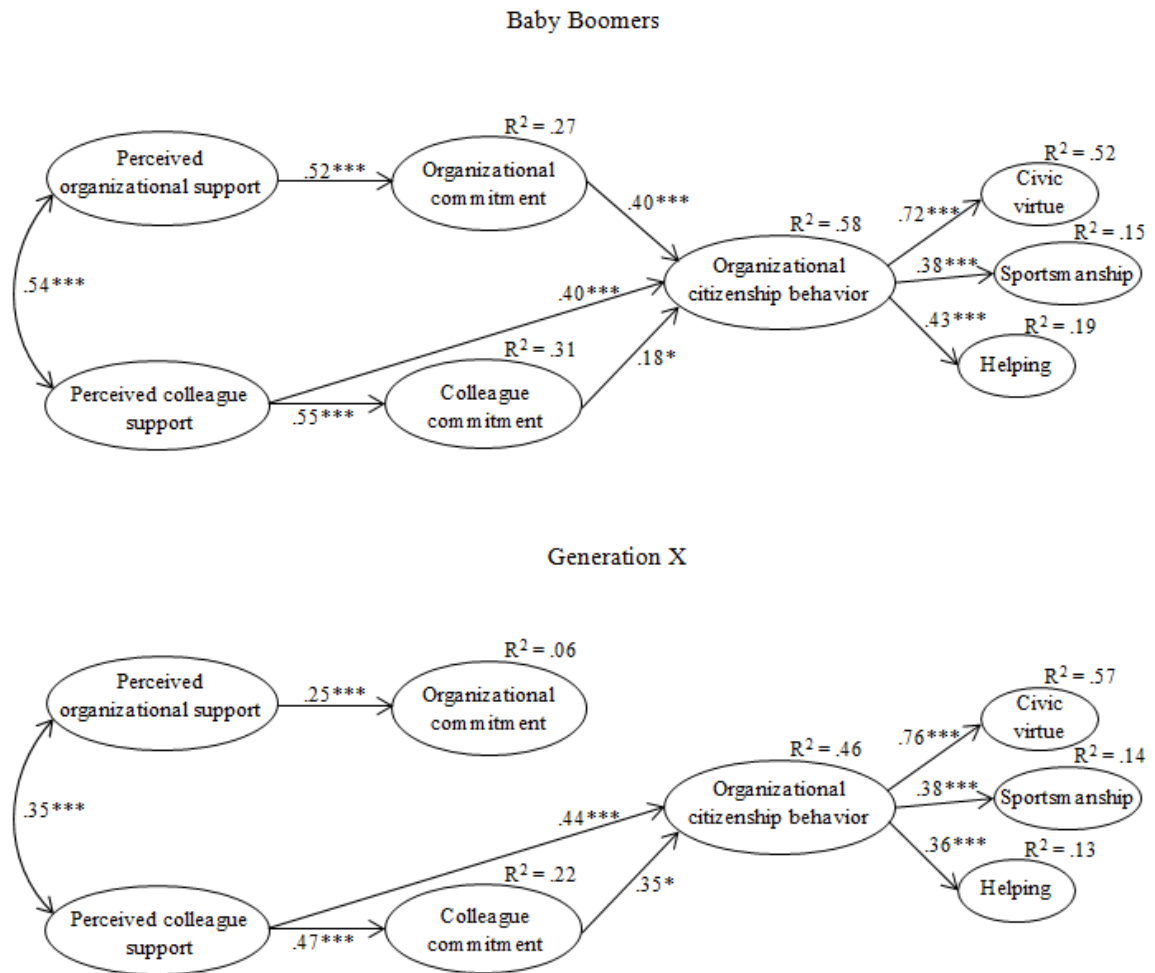
Model	SB χ^2	df	NNFI	CFI	RMSEA	Model comparison	Δ SB χ^2 (Δ df)	Decision
Boomers ($N = 444$)	380.75	178	.94	.95	.05			
GenX ($N = 238$)	349.45	179	.91	.92	.06			
1. Partial configural invariance	734.08	357	.93	.94	.06	—	—	Accepted
2. Metric invariance	745.56	371	.94	.94	.05	1 versus 2	15.43(14)	Accepted
3. Structural invariance	763.34	378	.93	.94	.06	2 versus 3	18.22(7)*	Rejected
3'. Partial structural invariance	755.55	377	.94	.94	.05	2 versus 3'	9.65(6)	Accepted

Note. Models are nested within each other: partial configural invariance (simultaneous model with no constraints), metric invariance (factor loadings equal), structural invariance (freed factor relationships equal), partial structural invariance (constraint released between organizational support and organizational commitment).

SB χ^2 , Satorra-Bentler chi-square; *df*, degree of freedom; NNFI, robust non-normed fit index; CFI, robust comparative fit index; RMSEA, robust root mean square error of approximation.

* $p < .05$

Figure 2: Standardized path estimates of the research model for both sub-samples



Note. All freely estimated factor relationships were found statistically invariant across samples, except for the path between perceived organizational support and organizational commitment.

Parameters for the measurement portion and disturbance terms are not presented for the sake of parsimony.

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

2.7 Discussion

2.7.1 Contribution of the study

The purpose of this paper was to examine the generational differences in the relationships of organization- and colleague-directed support and commitment with organizational citizenship behavior. We cautiously suggested, through the lens of social exchange theory, that the two prevailing generations in today's workforce, the Baby Boomers and Generation X, would exhibit differentiated work attitudes and behaviors toward organizational and colleague foci of support. Structural equation modeling results supported the idea that Boomers are generally more inclined to exchange commitment and citizenship behavior for employer support than members of GenX. However, the data indicated no significant differences across cohorts in their exchange relationships with coworkers.

This study contributes to the generational, social exchange and OCB literature in several ways. First, it extends recent research on generations by proposing and testing a model where comparisons are made by considering a number of structural relationships simultaneously. We found that affective commitment to the organization completely mediated the effect of perceived organizational support on OCB for the Boomers. Conversely, GenXers did not appear to make voluntary extra efforts on behalf of their employer as a consequence of their adherence to the company's goals and values (for this group, organizational commitment did not account for OCB). This could be explained by the weaker relationship between POS and organizational commitment in the GenX sample. However, it is also possible that workers from this cohort manifest their attachment to the company through alternative outcomes such as work satisfaction, intention to stay or job performance, for instance.

Second, our results also suggest that the relationships between perceived colleague support, colleague commitment and OCB were comparable across generations. This is a valuable contribution, as it demonstrates that workers from GenX are not more receptive than Boomers, in the absolute, to rewarding relationships with colleagues. They merely

favor reciprocal exchanges with peers rather than the organization as a whole. In relation to OCB, this could reflect a decoupling in the viewpoint of GenXers, between what is strictly enforceable by job requirements, i.e., fulfilling one's end of the bargain (which is the least the company expects), and discrete behaviors that are subsumed in daily interaction with coworkers.

Third, the direct relationship between PCS and OCB offers additional insight into employee motives to reciprocate in the workplace. Indeed, it would seem conceivable that proximity among coworkers creates a social exchange dynamic based on pragmatic considerations that need not necessarily be mediated by a strong affective bond between colleagues. Thus, in the presence of supportive peer relationships in the course of work activities, a lack of colleague commitment (one cannot possibly identify with all of his or her fellow coworkers) would not be a sufficient obstacle for reciprocating in the form of OCB.

2.7.2 Limitations and future research

Notwithstanding its contributions, this study has a number of limitations that warrant consideration in future research. First, the data came from a single female-dominated sample of public sector employees, thus limiting the generalizability of the results. Although women were equally distributed in both the Boomers and GenX sub-samples (thereby controlling for gender differences across cohorts), prospective research would be required in a range of private sector organizations more representative of today's workforce. Secondly, despite previous findings that work values are influenced more by generation than by experience and maturation effects (Smola & Sutton, 2002; Twenge et al., 2010), the cross-sectional design used in this study may confound differences based on age location with socio-psychological developments due to career or life stages. In this respect, future research using time-lag methodologies might further the advancement of knowledge by controlling for age beyond mean difference analysis. Indeed, great insight would be gained by examining the generation effect across time in the pattern of relationships between key work attitudes and behaviors.

Thirdly, we speculated theoretically that members of GenX would reasonably exhibit reciprocation wariness toward favorable treatment from their employing company, given their alleged skepticism toward the organizational context. Although the results show that workers from this generation tend to exercise less effort than Boomers in returning the organization's help, they do not actually teach us about the underlying process. Additional research endeavors could be conducted to learn whether these differences derive from distinct exchange ideology (Eisenberger et al., 1986; Eisenberger et al., 1987) with respect to organizational foci. Fourthly, we tested a parsimonious model involving employee attitudes toward the employer and colleagues. This leaves the supervisor level of analysis and other key work-related variables such as psychological contract fulfillment, trust, satisfaction, willingness to stay or job performance (among others) relatively unexplored. As such, the contributions of this developing literature (e.g., Benson & Brown, 2011; Brunetto et al., 2011; Hess & Jepsen, 2009; Lamm & Meeks, 2009; Park & Gursoy 2012; Shragay & Tziner, 2011; Wallace, 2006) need to be pursued further by considering more complex explanatory models in order to increase our overall understanding of generational characteristics as they relate to the employment condition.

Finally, in terms of organizational citizenship behavior, we contend that promising avenues of research are expected to be found at the colleague level of analysis. In line with previous advancements (e.g., Deckop et al., 2003), the results suggest that the extent to which coworkers help each other is critical to influence, not only the level of discretionary efforts directed at peers, but also toward the entire organization. Social relationships between colleagues are subsumed in daily organizational life, and pragmatic considerations may well bypass the benevolent intent of the exchange without having a significant impact on the link between perceived support and OCB. Albeit speculative, this possibility should be examined through theoretically informed perspectives alternatives to SET. This outlook appears all the more relevant, given that workers of the younger generation tend to show greater mutual relationships with colleagues than with the employer, eventually beneficial, however, to the organization as a whole.

References – Article 1

- Allen, N. J., & Meyer J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology*, 63(1), 1-18.
- Armstrong, J. S., & Overton, T. S. (1977). Estimating nonresponse bias in mail surveys. *Journal of marketing research*, 14(3), 396-402.
- Arsenault, P. (2004). Validating generational differences: A legitimate diversity and leadership issue. *Leadership and Organization Development Journal*, 25(2), 124-141.
- Aryee, S., Budhwar, P. S., & Chen, Z. X. (2002). Trust as a mediator of the relationship between organizational justice and work outcomes: Test of a social exchange model. *Journal of Organizational Behavior*, 23(3), 267-286.
- Babbie, E. (2007). *The Practice of Social Research* (11th ed.). Belmont, CA: Wadsworth.
- Becker, T. E. (1992). Foci and bases of commitment: Are they distinctions worth making? *Academy of Management Review*, 35(1), 232-244.
- Becker, T. E., Billings, R. S., Eveleth, D. M., & Gilbert, N. L. (1996). Foci and bases of employee commitment: Implications for job performance. *Academy of Management Journal*, 39(2), 464-482.
- Benson, J., & Brown, M. (2011). Generations at work: Are there differences and do they matter? *International Journal of Human Resource Management*, 22(9), 1843-1865.
- Bentein, K., Stinglhamber, F., & Vandenberghe, C. (2002). Organization-, supervisor-, and workgroup-directed commitments and citizenship behaviours: A comparison of models. *European Journal of Work and Organizational Psychology*, 11(3), 341-362.
- Bentler, P. M. (2006). *EQS 6 structural equations program manual*. Encino, CA: Multivariate Software.
- Bishop, J. W., Scott, K. D., & Burroughs, S. M. (2000). Support, commitment, and employee outcomes in a team environment. *Journal of Management*, 26(6), 1113-1132.
- Bishop, J. W., Scott, K. D., Goldsby, M. G., & Cropanzano, R. (2005). A construct validity study of commitment and perceived support variables: A multi-foci approach across different team environments. *Group & Organization Management*, 30(2), 153-180.
- Blau, P. M. (1964). *Exchange and power in social life*. New York, NY: Wiley.

- Brislin, R. W. (1980). Translation and content analysis of oral and written material. In H. C. Triandis & J. W. Berry (Eds.), *Handbook of Cross-Cultural Psychology* (pp. 398-444). Boston, MA: Allyn & Bacon.
- Brunetto, Y., Farr-Wharton, R., & Shacklock, K. (2011). Communication, training, well-being, and commitment across nurse generations. *Nursing Outlook, 60*(1), 7-15.
- Byrne, B. M. (1994). Testing for the factorial validity, replication, and invariance of a measuring instrument: A paradigmatic application based on the Maslach Burnout Inventory. *Multivariate Behavioral Research, 29*(3), 289-311.
- Campbell, W. K., Hoffman, B. J., Campbell, S. M., & Marchisio, G. (2011). Narcissism in organizational contexts. *Human Resource Management Review, 21*(4), 268-284.
- Cennamo, L., & Gardner, D. (2008). Generational differences in work values, outcomes and person-organisation values fit. *Journal of Managerial Psychology, 23*(8), 891-906.
- Chiaburu, D. S., & Harrison, D. A. (2008). Do peers make the place? Conceptual synthesis and meta-analysis of coworker effects on perceptions, attitudes, OCBs, and performance. *Journal of Applied Psychology, 93*(5), 1082-1103.
- Chou, C.-P., & Bentler, P. M. (1990). Model modification in covariance structure modeling: A comparison among likelihood ratio, Lagrange multiplier, and Wald tests. *Multivariate Behavioral Research, 25*(1), 115-136.
- Cohen, A. (2003). *Multiple commitments in the workplace: An integrative approach*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management, 31*(6), 874-900.
- d'Amato, A., & Herzfeldt, R. (2008). Learning orientation, organizational commitment and talent retention across generations: A study of European managers. *Journal of Managerial Psychology, 23*(8), 929-953.
- Deckop, J. R., Cirka, C. C., & Andersson, L. M. (2003). Doing unto others: The reciprocity of helping behavior in organizations. *Journal of Business Ethics, 47*(2), 101-113.
- de Meuse, K. P., Bergmann, T. J., & Lester, S. W. (2001). An investigation of the relational component of the psychological contract across time, generation, and employment status. *Journal of Managerial Issues, 13*(1), 102-118.
- Dencker, J. C., Joshi, A., & Martocchio, J. J. (2008). Towards a theoretical framework linking generational memories to workplace attitudes and behaviors. *Human Resource Management Review, 18*(3), 180-187.

- Eisenberger, R., Cotterell, N., & Marvel, J. (1987). Reciprocation ideology. *Journal of Personality and Social Psychology*, 53(4), 743-750.
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*, 71(3), 500-507.
- Eisenberger, R., Stinglhamber, F., Vandenberghe, C., Sucharski, I. L., & Rhoades, L. (2002). Perceived supervisor support: Contributions to perceived organizational support and employee retention. *Journal of Applied Psychology*, 87(3), 565-573.
- Eyerman, R., & Turner, B. (1998). Outline of a theory of generations. *European Journal of Social Theory*, 1(1), 91-106.
- Ferres, N., Travaglione, A., & Firms, I. (2003). Attitudinal differences between Generation-X and older employees. *International Journal of Organisational Behaviour*, 6(3), 320-333.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equations models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.
- Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American Sociological Review*, 25(2), 161-178.
- Hair, J. F., Jr., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Upper Saddle River, NJ: Prentice Hall.
- Hess, N., & Jepsen, D. M. (2009). Career stage and generational differences in psychological contracts. *Career Development International*, 14(3), 261-283.
- Howes, J. C., Cropanzano, R., Grandey, A. A., & Mohler, C. J. (2000). Who is supporting whom? Quality team effectiveness and perceived organizational support. *Journal of Quality Management*, 5(2), 207-223.
- James, J. B., McKechnie, S., & Swanberg, J. (2011). Predicting employee engagement in an age-diverse retail workforce. *Journal of Organizational Behavior*, 32(2), 173-196.
- Jorgensen, B. (2003). Baby Boomers, Generation X and Generation Y: Policy implications for defence forces in the modern Era. *Foresight*, 5(4), 41-49.
- Jurkiewicz, C. L., & Brown, R. G. (1998). Generational comparisons of public employee motivation. *Review of Public Personnel Administration*, 18(4), 18-37.
- Klammer, J., Skarlicki, D. P., & Barclay, L. (2002). Speaking up in the Canadian military: The roles of voice, being heard, and generation in predicting civic virtue. *Canadian Journal of Behavioural Science*, 34(2), 122-130.

- Kupperschmidt, B. (2000). Multigeneration employees: Strategies for effective management. *Health Care Manager, 19*(1), 65-76.
- Lamm, E., & Meeks, M. D. (2009). Workplace fun: The moderating effects of generational differences. *Employee Relations, 31*(6), 613-631.
- LePine, J. A., Erez, A., & Johnson, D. E. (2002). The nature and dimensionality of organizational citizenship behavior: A critical review and meta-analysis. *The Journal of Applied Psychology, 87*(1), 52-65.
- Lub, X. D., Bijvank, M. N., Bal, P. M., Blomme, R. J., & Schalk, R. (2012) Different or alike? Exploring the psychological contract and commitment of different generations of hospitality workers. *International Journal of Contemporary Hospitality Management, 24*(4), 553-573.
- Lub, X. D., Blomme, R. J., & Bal, P. M. (2011). Psychological contract and organizational citizenship behavior: A new deal for new generations? In J. S. Chen (Ed.), *Advances in Hospitality and Leisure* (Vol. 7, pp.109-130). Bingley, UK: Emerald.
- Mannheim, K. (1928/1952). The problem of generations. In K. Mannheim (Ed.), *Essays on the Sociology of Knowledge* (pp. 276-322). London, UK: Routledge.
- Marsh, H. W., Hau, K. T., & Wen, Z. (2004). In search of golden rules: Comment on hypothesis testing approaches to setting cutoff values for fit indexes and dangers in overgeneralizing Hu & Bentler's (1999) findings. *Structural Equation Modeling, 11*(3), 320-341.
- McMullin, J., Comeau, T., & Jovic, W. (2007). Generational affinities and discourses of difference: A case study of highly skilled information technology workers. *British Journal of Sociology, 58*(2), 297-316.
- Medsker, G., Williams, L., & Holahan, P. A. (1994). Review of current practices for evaluating causal models in organizational behavior and human resources management research. *Journal of Management, 20*(2), 439-64.
- Meyer, J. P., & Allen, N. J. (1997). *Commitment in the workplace: Theory, research, and application*. Thousand Oaks, CA: Sage.
- Meyer, J. P., Stanley, D. J, Herscovitch, L., & Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates and consequences. *Journal of Vocational Behavior, 61*(1), 20-52.
- Moorman, R. H., Blakely, G. L., & Niehoff, B. P. (1998). Does perceived organizational support mediate the relationship between procedural justice and organizational citizenship behavior? *Academy of Management Journal, 41*(3), 351-357.

- Mowday, R. T., Steers, R. M., & Porter, L. W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior*, 14(2), 224-247.
- Neil, S. (2010). Leveraging generational work styles to meet business objectives. *Information Management Journal*, 44(1), 28-33.
- Nunnally, J. C., & Bernstein, I. (1994). *Psychometric Theory* (3rd ed.). New York, NY: McGraw-Hill.
- O'Reilly, C. A., & Chatman, J. (1986). Organizational commitment and psychological attachment: The effects of compliance, identification, and internalization on prosocial behavior. *Journal of Applied Psychology*, 71(3), 492-499.
- Organ, D. W. (1988). *Organizational citizenship behavior: The good soldier syndrome*. Lexington, MA: Lexington Books.
- Organ, D. W., Podsakoff, P. M., & MacKenzie, S. B. (2006). *Organizational citizenship behavior: Its nature, antecedents, and consequences*. Thousand Oaks, CA: Sage.
- Paillé, P. (2009). The relationship between support, commitment and intent to leave team: A social exchange perspective. *Team Performance Management*, 15(1-2), 49-62.
- Paillé, P. (2012). Do coworkers make the service customer? A field study in the public sector. *Review of Public Personnel Administration*, 32(4), 1-30.
- Park, J., & Gursoy, D. (2012). Generation effects on work engagement among U.S. hotel employees. *International Journal of Hospitality Management*, 31(4), 1195-1202.
- Pearce, C. G., & Herbik, P. A. (2004). Citizenship behavior at the team level of analysis: The effects of team leadership, team commitment, perceived team support, and team size. *Journal of Social Psychology*, 144(3), 293-310.
- Podsakoff, P. M., Ahearne, M., & MacKenzie, S. B. (1997). Organizational citizenship behavior and the quantity and quality of workgroup performance. *The Journal of Applied Psychology*, 82(2), 262-270.
- Podsakoff, P. M., & MacKenzie, S. B. (1994). Organizational citizenship behaviors and sales unit effectiveness. *Journal of Marketing Research*, 31(3), 351-363.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903.
- Porter, L. W., Steers, R. M., Mowday, R. T., & Boulian, P. V. (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology*, 59(5), 603-609.

- Reichers, A. E. (1985). A review and reconceptualization of organizational commitment. *Academy of Management Review*, 10(3), 465-476.
- Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology*, 87(4), 698-714.
- Satorra, A., & Bentler, P. M. (1986). Some robustness properties of goodness of fit statistics in covariance structure analysis. *1986 ASA Proceedings of the Business and Economic Statistics Section* (pp. 549-554). Alexandria, VA: American Statistical Association.
- Satorra, A., & Bentler, P. M. (1988). Scaling corrections for chi-square statistics in covariance structure analysis. *1988 ASA Proceedings of the Business and Economic Statistics Section* (pp. 308-313). Alexandria, VA: American Statistical Association.
- Schaninger, W. S., & Turnipseed, D. L. (2005). The workplace social exchange network: Its effect on organizational citizenship behavior, contextual performance, job satisfaction, and intention to leave. In D. L. Turnipseed (Ed.), *Handbook of organizational citizenship behavior: A review of 'good soldier' activity in organizations* (pp. 209-242). New York, NY: Nova Science.
- Schuman, H., & Scott, J. (1989). Generations and collective memories. *American Sociological Review* 54 (3), 359-381.
- Scott-Ladd, B., Travaglione, A., Perryer, C., & Pick, D. (2010). Attracting and retaining talent: Social organisational support as an emergent concept. *Research and Practice in Human Resource Management*, 18(2), 1-14.
- Secretary of the Conseil du Trésor. (2010). *The Workforce of the Quebec Public Administration*. [L'effectif de la fonction publique du Québec]. Retrieved from <http://www.tresor.gouv.qc.ca>.
- Shragay, D., & Tziner, A. (2011). The generational effect on the relationship between job involvement, work satisfaction, and organizational citizenship behavior. *Journal of Work and Organizational Psychology*, 27(2), 143-157.
- Silvey, S. D. (1959). The Lagrange multiplier test. *The Annals of Mathematical Statistics*, 30(2), 389-407.
- Smola, K., & Sutton, C. (2002). Generational differences: Revisiting generational work values for the new millennium. *Journal of Organizational Behaviour*, 23(4), 363-382.
- Sobel, M. E. (1987). Direct and indirect effects in linear structural equation models. *Sociological Methods & Research*, 16(1), 155-176.
- Steenkamp, J.-B. E. M., & Baumgartner, H. (1998). Assessing measurement invariance in crossnational consumer research. *Journal of Consumer Research*, 25(1), 78-90.

- Stinglhamber, F., de Cremer, D., & Mercken, L. (2006). Perceived support as a mediator of the relationship between justice and trust. *Group & Organization Management, 31*(4), 442-468.
- Twenge, J. M., Campbell, S. M., Hoffman, B. J., & Lance, C. E. (2010). Generational differences in work values: Leisure and extrinsic values increasing, social and intrinsic values decreasing. *Journal of Management, 36*(5), 1117-1142.
- Vandenberg, R. J., & Lance, C. E. (2000). A review and synthesis of the measurement invariance literature: Suggestions, practices, and recommendations for organizational research. *Organizational Research Methods, 3*(1), 4-69.
- Vandenberghe, C., Bentein, K., & Stinglhamber, F. (2004). Affective commitment to the organization, supervisor, and work group: Antecedents and outcomes. *Journal of Vocational Behavior, 64*(1), 47-71.
- Vandenberghe, C., Stinglhamber, F., Bentein, K., & Delhaise, T. (2001). An examination of the cross-cultural validity of a multidimensional model of commitment in Europe. *Journal of Cross-Cultural Psychology, 32*(3), 322-347.
- Wallace, J. E. (2006). Work commitment in the legal profession: A study of Baby Boomers and Generation Xers. *International Journal of the Legal Profession, 13*(2), 137-151.
- Williams, L. J., & Anderson, S. E. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management, 17*(3), 601-617.

Chapitre/Article 2. Linking corporate policy and supervisory support with environmental citizenship behaviors: The role of employee environmental beliefs and commitment

3.1 Abstract

This study investigate the social-psychological mechanisms leading individuals in organizations to engage in environmental citizenship behaviors, which entail keeping abreast of, and participating in, the environmental affairs of a company. Informed by the corporate greening and organizational behavior literature, we suggested that an employee's level of involvement in the management of a company's environmental impact was the overt manifestation of his or her discretionary sense of commitment to environmental concerns in the work context, and that such commitment developed through the interplay of individual, organizational, and supervisory factors. Our general findings support the idea that when environmental protection is valued and encouraged by the company and line managers, organization members are more likely to experience a volitional sense of attachment and responsibility to corporate environmental goals and values, which is enacted through citizenship behaviors. We also expected that individual ecological beliefs would strengthen the environmental commitment of employees via identification with, and adherence to, the socially responsible cause embodied by the organization and its managerial staff. But it did not. On the contrary, the data indicated that corporate environmental policy is more likely to influence an employee's level of environmental commitment when he or she holds weak versus strong personal ecological beliefs. Theoretical and managerial implications of our findings are discussed.

Keywords: Corporate greening, Environmental commitment, Organizational citizenship behavior (OCB), Pro-environmental behavior, Supervisory support, New Ecological Paradigm (NEP), Environmental attitudes

Relier les politiques d'entreprises et le soutien du superviseur aux comportements de citoyenneté environnementale: Le rôle des croyances et de l'engagement environnementaux des employés

Résumé

Cet article étudie les mécanismes socio-psychologiques conduisant les employés à adopter des comportements d'éco-citoyenneté organisationnelle, qui impliquent de se tenir au courant, et de participer aux affaires environnementales d'une entreprise. En lien avec la littérature, nous suggérons que le niveau d'implication d'un employé dans le processus d'écologisation d'une entreprise dépend de son engagement moral envers les préoccupations environnementales au travail, et que cet engagement se développe à l'interaction de facteurs individuel (i.e., les croyances environnementales personnelles), organisationnel (i.e., la politique environnementale de l'entreprise) et managérial (i.e., le soutien du superviseur). Nos résultats soutiennent l'idée que lorsque la protection de l'environnement est valorisée et encouragée par l'entreprise et les superviseurs, les employés sont plus susceptibles d'éprouver un sentiment d'attachement et de responsabilité envers l'écologie organisationnelle, et de manifester des comportements d'éco-citoyenneté organisationnelle. Nos données montrent également qu'il n'y a pas d'effet de synergie entre les déterminants individuel et organisationnel. Au contraire, la politique environnementale d'une entreprise semble plus susceptible d'avoir un écho sur les employés possédant des croyances environnementales personnelles faibles. Les implications théoriques et managériales sont discutées.

Mots-clés: Écologisation des entreprises, Engagement environnemental, Comportements de citoyenneté organisationnelle, Comportements pro-environnementaux, Soutien du superviseur, Nouveau paradigme écologique, Attitudes environnementales

3.2 Introduction

Over the last several decades, corporate greening has become an important organizational issue (McKinsey & Company, 2011; Ones & Dilchert, 2012). Ecological concerns are increasingly construed in a moralized fashion in the public arena, pressing companies to advance the environmental cause in a more responsive and holistic manner (Bansal & Roth, 2000; Pandey, Rupp, & Thornton, 2013; Starik & Rands, 1995). Accompanying this trend, research on corporate greening has emphasized the need to consider the natural environment as a stakeholder in its own right (e.g., Driscoll & Starik, 2004; Starik, 1995) and to build on the civic attitudes and citizenship behaviors of individuals in organizations (e.g., Boiral, 2009; Daily, Bishop, & Govindarajulu, 2009). There is indeed a growing sense that “the moral actions of the firm interact with the moral concerns of employees in influencing their behaviors within the organizational context” (Aguilera, Rupp, Williams, & Ganapathi, 2007, p. 842; Grant, Dutton, & Rosso, 2008; C. P. Lin, Lyau, Tsai, Chen, & Chiu, 2010). On this basis, a developing body of research has explored how both individual and organizational determinants influence the discretionary involvement of employees in the management of a company’s environmental impact (e.g., Andersson & Bateman, 2000; Chou, 2014; Lamm, Tosti-Kharas, & Williams, 2013; Smith & O’Sullivan, 2012; Temminck, Mearns, & Fruhen, 2013). Although these studies have advanced our knowledge in this area, this line of research is still relatively underdeveloped, and the social-psychological processes leading individuals to engage in informal environmental initiatives in the work context are not fully comprehended (Andersson, Shivarajan, & Blau, 2005; Lo, Peters, & Kok, 2012; Lülfs & Hahn, 2013; Ones & Dilchert, 2012).

The importance of understanding how employees go about initiating innovative and spontaneous behaviors directed at environmental improvement has been highlighted in the literature. Organizationally functional change that is attributable to corporate greening activities need not be reduced to formal management practices, systems, and technologies (Gattiker & Carter, 2010; S. L. Hart, 1995; Ramus & Killmer, 2007; Walley & Stubbs, 2000). More often than not, the success or failure of environmental management programs inheres in the willingness (or lack thereof) of employees to support continuous change and

take responsibility, on a discretionary basis and at their own level, for the environmental impact of the company (Daily et al., 2009; Smith & O’Sullivan, 2012). Subordination and other structural aspects of organizations do not simply create by fiat widespread employee commitment in environmental affairs. As organizations increase their corporate greening efforts, the ongoing challenge, therefore, is to translate official organizational policies into decentralized and emergent individual initiatives (Lamm, Tosti-Kharas, & King, 2014; Norton, Zacher, & Ashkanasy, 2014; Paillé, Chen, Boiral, & Jin, 2014). Otherwise, programs will be poorly integrated, innovations will be lost, the technology underutilized, and problems will not be resolved timely and effectively. Through their discretionary actions, employees are thus instrumental in contributing to corporate environmental performance. They help address the diversity and complexity of environmental issues, and compensate for the inherent limitations of formal management practices, systems, and technologies (Boiral, 2009; Stringer, 2010). Said differently, the many small-scale, voluntary behaviors of employees also determine, in aggregate and over time, the shape and trajectory of the organizational greening process that develops from the mutual relationship between action and structure (Gattiker & Carter, 2010; Walley & Stubbs, 2000).

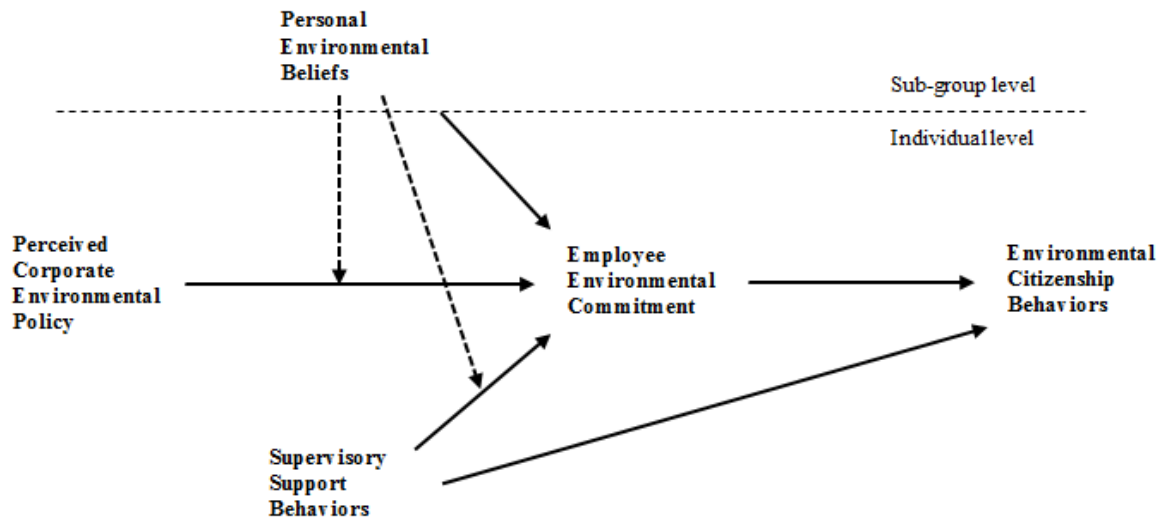
For that reason, the purpose of this study was to gain a better understanding of the social-psychological mechanisms underlying innovative and spontaneous employee acts directed at environmental improvement in the work context—otherwise known as “environmental citizenship behaviors” (Boiral, 2009; Daily et al., 2009). To examine employee willingness to engage in citizenship behaviors toward the environment, we developed a structural equation model that integrated people’s discretionary sense of commitment to environmental concerns in the workplace. The model involved hypotheses at the individual and sub-group levels of analysis (see Figure 1), and was tested in two steps (Wegener & Fabrigar, 2000; Williams et al., 2003). First, we investigated the mediating role of employee environmental commitment on the relationships of personal environmental beliefs, perceived corporate environmental policy, and supervisory support with environmental citizenship behaviors. Second, we analyzed the moderating (strengthening) effect of personal environmental beliefs on the relationships of perceived corporate environmental policy and supervisory support with employee environmental

commitment. The results supported the idea that individual, organizational, and managerial factors influence the behaviors of employees through their sense of commitment to environmental concerns in a work context. However, our moderation hypotheses were rejected, leading to some interesting unexpected findings that appear to run counterintuitive to the current theoretical knowledge in the literature. Indeed, the relationship between environmental policy and employee environmental commitment only held for individuals with weak (versus strong) personal environmental beliefs. Paradoxically, perceived supportiveness for environmental behaviors seemed to appeal less to employees who were “green believers.” It may be that these employees need less formal and informal assistance because they feel greater self-efficacy or behavioral control to act individually with regard to environmental issues.

By exploring a model of workplace environmental citizenship that examines how individual environmental commitment arises or is sustained in organizations, this study contributes to the corporate greening and organizational behavior literature by extending recent theoretical (Mesmer-Magnus, Viswesvaran, & Wiernik, 2012) and empirical research (Cantor et al., 2012; Perez, Amichai-Hamburger, & Shterental, 2009). Considering, defining, and developing the concept of employee environmental commitment is an important endeavor. Indeed, although this theme has been a long-standing, recurring leitmotif in the corporate greening literature (Keogh & Polonsky, 1998), most research tends to speak of it in an implicit, general and elusive way. Similarly, while it has long been recognized in the organizational behavior literature that employees can develop workplace commitments that transcend organizational boundaries (Morrow, 1993; Reichers, 1985), research on commitments to socially responsible practices is still in its infancy and deserves greater attention (Bingham, Mitchell, Bishop, & Allen, 2013; Collier & Esteban, 2007; Grant et al., 2008).

The remainder of the paper is organized as follows. In the next section, the background is presented and the research hypotheses are developed. The research method, analytical procedure and results are then reported. Last, the study findings and their implications are discussed in light of the corporate greening and organizational behavior literature.

Figure 1: Research model



Note. All relationships in the model are hypothesized to be positive. Dashed arrows represent moderated relationships.

3.3 Background and research hypotheses

Recent research makes a convincing case to include employee pro-environmental behaviors as part of the “organizational citizenship behaviors” domain (Boiral, 2009; Daily et al., 2009; Lülfs & Hahn, 2013; Ones & Dilchert, 2012; Ramus & Killmer, 2007). This term, not to be confounded with corporate citizenship¹, refers to the discretionary, pro-social actions of individuals in the work context and sometimes beyond it—as when people represent their company positively to outsiders (Organ, Podsakoff, & MacKenzie, 2006; Van Dyne, Graham, & Dienesch, 1994). These behaviors are said to involve a “sense of citizenship” in that they are a matter of personal choice and entail responsible involvement, investment of time and energy, in the social life of the organization outside of formal requirements. They reflect a cooperative pattern of conduct that is optional or supererogatory, and denote employee willingness to make extra efforts that benefit, and contribute to the welfare of, the organization and its constituents.

¹ Corporate citizenship reflects “the concern that a firm has for its social obligations and values” and entails the advancement of activities that contribute to the social agenda over and above legal requirements (Bansal & Roth, 2000, p. 728; C. P. Lin et al, 2010).

To be sure, not all employee pro-environmental behaviors are volitional and beyond the call of duty. A wide literature has explored formal job and work designs meant to promote employee participation in key environmental management activities, such as pollution prevention, waste management or resource minimization (e.g., Hanna, Newman, & Johnson, 2000; Kitazawa & Sarkis, 2000; May & Flannery, 1995; Remmen & Lorentzen, 2000; Rothenberg, 2003; Ruiz-Quintanilla, Bunge, Freeman-Gallant, & Cohen-Rosenthal, 1996). Nevertheless, no organizational planning can cover or foresee all contingencies in its operations (Katz & Kahn, 1978), not least corporate greening (S. L. Hart, 1995). In their extensive analysis of more than 3,000 critical environmental activities obtained from a large spectrum of jobs, organizations and industries in the United States and Europe, Ones and Dilchert (2012) found that only 13 to 29 percent of employee “green” behaviors were mandated by work assignments. Similarly, in their study of the North American environmental sector, Egri and Herman (2000) revealed that only 16 percent of companies “depended primarily on bureaucratic means (formal authority and rules) to control employee behaviors” (p. 596). That is, because of the diversity, complexity and contingent nature of environmental issues, corporate greening relies on a multitude of inconspicuous and unrecognized behaviors and therefore cannot solely be achieved through dependable role performance. It requires the informal and tacit resources of people in spontaneous cooperation as well as innovative and volunteering behaviors, which begin at the individual level and gradually accumulate (Boiral, 2002, 2009; Daily et al., 2009; Ramus & Killmer, 2007; Smith & O’Sullivan, 2012).

Clearly, the formal or official design of an organization never completely accounts for what members do. It is always supplemented by an informal structure that arises from and through the multiple assumptions and combined endeavors of individuals (Crozier & Friedberg, 1980; Selznick, 1957). For example, cleaner technology, environmental management systems, eco-innovations, or environmental training are important factors that promote corporate greening and for which technical and human changes are inextricably intertwined (S. L. Hart, 1995). Noteworthy, Boiral (2007) has shown in a case study among facilities applying the ISO 14001 environmental management system that the substantial, as opposed to the ceremonial integration of the standard was dependent on a supportive

number of employee actions of a discretionary and spontaneous sort. Similarly, employee engagement in voluntary pro-environmental behaviors can become the main thrust behind a company's sustained environmental efforts (e.g., Egri & Herman, 2000; Gattiker & Carter, 2010). That is to say, corporate greening can be construed as a mutually reinforcing process between action and structure, where each contributes to the other (Walley & Stubbs, 2000).

Drawing on Organ's (1988) classic definition, organizational citizenship behaviors directed toward the environment have thus typically been defined as individual actions that are discretionary, not explicitly required by the organization, and in aggregate contribute to corporate greening. Several operational measures have been developed to date (see Boiral & Paillé, 2012; Lamm et al., 2013; Temminck et al., 2013), including conceptually close constructs reflecting voluntary or pro-active workplace environmental behaviors (see Bissing-Olson, Iyer, Fielding, & Zacher, 2013; Cantor et al., 2012; Robertson & Barling, 2013). However, authors somewhat differ in their view of what environmental citizenship concretely represents, or encompasses, in the organizational context.

For example, Lamm et al. (2013) chose to extend domestic conservation behaviors to the workplace, such as reusing, recycling or reducing use. Following the classification by Smith and O'Sullivan (2012), these behaviors are, for the most part, "direct," or non-relational, and have a "local" impact in the organization. In contrast, Boiral and Paillé (2012) and Temminck et al. (2013) focused on "wider" work practice improvement initiatives and "indirect" behaviors of a social nature that are, interestingly, more in harmony with the "active citizenship syndrome" described by Inkeles (1969) in modern political theory and translated to the organizational context by Graham (1991) and her colleagues (Van Dyne et al., 1994). Namely, in the same way that responsible citizens in society show concern for, and participate in, civic affairs, good citizens in the workplace take an interest in and contribute to the life of the organization, not least through voluntary involvement and spontaneous cooperation. In other words, workplace environmental citizenship entails more than manifesting discretionary conservation behaviors. It suggests a broader pattern of conduct that includes actions such as keeping abreast of the environmental affairs of the company, expressing one's opinion about environmental issues

and policies, and making innovative environmental suggestions (Lülfes & Hahn, 2013; Temminck et al., 2013), as well as promoting ecological concerns to colleagues, volunteering in environmentally related activities, and encouraging others to do the same (Boiral & Paillé, 2012; Daily et al., 2009; Ramus & Killmer, 2007; Smith & O'Sullivan, 2012).

Although the environmental citizenship behaviors of employees may appear mundane or secondary when taken individually, they tend to have a multiplier effect on environmental performance when accumulated over time and individuals (Paillé et al., 2014). This is not to suggest that expressions of citizenship can replace environmental policies, management systems, or technologies, but that they have a non-trivial social functionality and bear on the shape and trajectory of the corporate greening process (Gattiker & Carter, 2010; Walley & Stubbs, 2000). The main challenge for organizations, therefore, is to nurture and support the willingness of people that exists outside of a purely contractual exchange to contribute to their social milieu.

Because of the pressures of their jobs, people have little time to take interest and get involved in environmental affairs (that is, without formal inducements and outside of functional responsibilities) (Cordano & Frieze, 2000; Crane, 2000; Tudor, Barr, & Gilg, 2008). However, as in other social domains such as the civic or political spheres, individuals are likely to spontaneously engage in citizenship behaviors when they feel a sense of attachment and responsibility to a belief or a principle of a transcendental sort (Cohen & Vigoda, 2000; Graham, 1991). The quality of such feeling generally reflects and fuels an internal motivation, a discretionary sense of commitment that can certainly be directed at environmental concerns in the workplace (Cantor et al., 2012; Keogh & Polonsky, 1998; Mesmer-Magnus et al., 2012; Perez et al., 2009). It is indeed increasingly recognized in the literature that employees can experience commitments to the socially responsible practices of organizations (Aguilera et al., 2007; Bingham et al., 2013; Collier & Esteban, 2007; Grant et al., 2008). Unfortunately, most research in this area remains theoretical and the environmental commitment of employees has been underexplored.

Given the importance of individual commitment for corporate greening, there is a need to gain a better understanding of “what commitment actually means in this context ... and how such commitment arises or is sustained in organizations” (Keogh & Polonsky, 1998, p. 38). In this study, we attempted to respond to the unanswered call of Keogh and Polonsky by developing the concept of employee environmental commitment and by investigating its mediating role in the relationships of personal environmental beliefs, perceived corporate environmental policy, and supervisory support with environmental citizenship behaviors. The theoretical underpinnings that led us to these hypotheses are developed in the next subsection.

3.3.1 The mediating role of employee environmental commitment

The notion of commitment is a recurring theme in the corporate greening literature (Keogh & Polonsky, 1998). However, with a few recent exceptions (Cantor et al., 2012; Mesmer-Magnus et al., 2012; Perez et al., 2009), most research tends to speak of it in implicit, general, and elusive terms. Commitments are noteworthy in that they give direction to people’s behaviors and notably facilitate the attainment of overarching goals by transcending individual self-interests (Meyer & Herscovitch, 2001; Lawler, Thye, & Yoon, 2009). As a consequence, the concept of commitment has attracted considerable attention in the social sciences for its potential capacity to solve collective problems or dilemmas of a social and economic nature (Nesse, 2001). Similarly, an extensive body of research on workplace commitments has developed in the organizational behavior domain (Cohen, 2003; Morrow, 1993; Meyer & Allen, 1997). The literature has reached an impressive level of sophistication and we do not mean to capture all the subtleties that fuel the ongoing debate in this area (see, e.g., Bingham et al., 2013; Brown, 1996; Cohen, 2007; Klein, Molloy, & Brinsfield, 2012; Meyer, Becker, & Vandenberghe, 2004; Meyer & Parfyonova, 2010).

According to Meyer and Herscovitch (2001), there appears to be consensus that commitment is experienced as a “mind-set,” a frame of mind or psychological state that can be expressed intuitively and gives behavioral direction toward a target (e.g., an entity, an

individual, a goal, an idea, or a cause) with more or less recourse to cognitive appraisal. A sense of commitment to a cause or a socially relevant target, such as the natural environment, is seen as developing on both affective and normative grounds (Bingham et al., 2013; Meyer & Parfyonova, 2010). It is “based on psychological attachment and the internalization of the goals and values of the organization” (Cohen’s, 2007, p. 344) and entails a spontaneous feeling of responsibility for the target (Klein, Cooper, Molloy, & Swanson, 2014).

Interestingly, we can recognize this conceptual influence in the work of Perez et al. (2009) and Cantor et al. (2012) who, respectively, defined employee environmental commitment as “an internal, obligation-based motivation” (p. 599) and as “emotional attachment, identification, and involvement with environmental behaviors” (p. 36). In this study, we took an integrative approach in line with the literature and defined commitment as a frame of mind denoting both a sense of attachment and responsibility to environmental concerns in the workplace.

We believe that the commitment concept has added value for the study of employee behaviors compared to broad-based environmental beliefs, or attitudes, as commonly measured by the New Ecological Paradigm scale (Dunlap, Van Liere, Mertig, & Jones, 2000). General attitudes toward the environment, such as the New Ecological Paradigm, typically reflect a person’s beliefs about humanity’s relationship with nature and do not necessarily translate into action both outside (see, e.g., Kollmuss & Agyeman, 2002; Nooney, Woodrum, Hoban, & Clifford, 2003; Scott & Willits, 1994) and within the workplace (see, e.g., Andersson et al., 2005; Chou, 2014; Gadenne, Kennedy, & McKeiver, 2009). That is, people may develop pro-environmental worldviews with an affiliative logic regardless of personal involvement. As suggested by the theory of reasoned action (Ajzen & Fishbein, 1980) and the value-belief-norm theory (Stern, Dietz, & Guagnano, 1995), specific attitudes that are context-dependent and/or have behavioral direction are more likely (as opposed to generalized attitudes) to become enacted and reified. Further, it is worth noting that, in contrast to attitudinal stances, which assess people’s favorability of opinion (Ajzen, 2001), commitments reflect a psychological state, an internal disposition

that implicitly entails “an understanding of what must be done ... to uphold the commitment” (Brown, 1996, p. 233; Klein et al., 2012; Meyer & Herscovitch, 2001). As a consequence, although personal environmental beliefs have been found to influence voluntary pro-environmental behaviors in the workplace (e.g., Bissing-Olson et al., 2013; Lamm et al., 2013; Temminck et al., 2013), we would expect their influence to be indirect—distal instead of proximal—and mediated by the environmental commitment of employees. Therefore, we hypothesized the following:

Hypothesis 1: Employee environmental commitment mediates the positive relationship between personal environmental beliefs and environmental citizenship behaviors.

So far, we have essentially argued that environmental citizenship behaviors have an internal locus of causality. However, the organizational context provides a system of actions and constraints (Crozier & Friedberg, 1980) that either facilitates or hinders the personal and voluntary involvement of employees in the management of a company’s environmental impact (Lo et al., 2012; Perez et al., 2009; Tudor et al., 2008). In daily organizational life, individuals may perceive little opportunity for promoting ecological issues outside of formal assignments, especially in the absence of internal environmental concern (Boiral, 2005; Paillé et al., 2014; Ramus & Steger, 2000). That is, employees are more likely to show interest for, and participate in, environmental affairs when the company sends a clear signal regarding protection of the natural environment (Cantor et al., 2012).

For example, Ramus and Steger (2000) have shown that corporate environmental policy, as conveyed by a firm’s environmental strategy, management systems, and practices, can create a supportive atmosphere that denotes organizational encouragement and ultimately results in innovative environmental behaviors. Similarly, Perez et al. (2009) found that by giving ecological concerns a significant presence in the workplace, technical programs and procedures that are elaborated into an official “philosophy,” such as the ISO 14001 environmental management system, tend to build a sense of commitment in employees via increased awareness and appropriation of related issues. In the same order of idea, Walley

and Stubbs (2000) also note how the reporting of an organization can be used, through exemplar imagery, to draw attention to environmental success stories and thereby affect the way that employees make sense of the organization. In brief, environmental policies and activities are important drivers that shape the organizational context and influence employee green behaviors, both mandatory and volitional (Chou, 2014; Norton et al., 2014).

In addition, by promoting standards that organization members can relate to and by embodying values institutionalized in society, a company can derive “added meaning from the psychological and social functions it performs” (Selznick, 1957, p. 20). When employers support socially responsible practices that transcend organizational boundaries, and when they demonstrate respect and concern for the environment, they are more likely to be perceived as benevolent and caring, and have its actions reciprocated by employees (Aguilera et al., 2007; Bingham et al., 2013; Cantor et al., 2012). Indeed, research has shown that companies that embody a valued cause (i.e., a social good external to the organization) are more apt to create internal processes of sense making and thereby foster in its employees feelings of shared commitment and responsibility (Collier & Esteban, 2007; Grant et al., 2008; D. W. Hart & Thompson, 2007). In other words, by defining ecological concern as a salient corporate value, organizational policy is likely to inspire employee environmental commitment and, in turn, environmental citizenship behaviors. Therefore, we hypothesized as follows:

Hypothesis 2: Employee environmental commitment mediates the positive relationship between perceived corporate environmental policy and environmental citizenship behaviors.

Because line managers serve and act as representatives of the organization, they are the ones responsible for relaying environmental practices to employees at each organizational level. Managers, however, are in an equivocal position in that they are accountable for promoting both the formal and the informal structure of the organization. On one hand, they need to consolidate the official design of the organization by enforcing authority; on the

other hand, they need to mobilize the resources of people in spontaneous cooperation (Katz & Kahn, 1978). Subordination and contractual exchanges cannot simply enforce employee willingness to contribute individual efforts to the whole array of corporate greening activities (Boiral, 2009; S. L. Hart, 1995). Fortunately, some aspects of the supervisory position help encourage organizationally functional change in the environmental domain such that the strictly formal roles of employees can evolve into and be supplemented by less formal activities (Lülfes & Hahn, 2013; Ramus & Killmer, 2007).

The resources and responsibilities of managers are not only greater than those of employees, they are also more diffuse. Managers are more knowledgeable of the environmental issues of their organization and possess more control or discretionary power to act accordingly (Robertson & Barling, 2013). As such, their level of supervisory support, through resources or behavior, can be decisive in overcoming difficulties related to the complexity and diversity of environmental problems. For example, Ramus and Steger (2000) show that by allocating time for training and competence building, adopting an open communication style, or sharing information, supervisors provide employees with the conditions of possibility for greater emancipation and change. Furthermore, it is worth noting that managers' behaviors can be modeled and emulated by employees, resulting in a multiplier effect that bears on the shape and trajectory of the organizational greening process (Boiral, Talbot, & Paillé, 2013).

In this light, studies have shown that because of the managers' positions in the hierarchical structure, the discretion with which they decide whether or not to encourage protection of the natural environment is significant in stimulating, or, in the contrary, inhibiting, employee environmental initiatives (e.g., Cantor, Morrow, & Montabon, 2012; Ramus, 2001; Ramus & Steger, 2000; Robertson & Barling, 2013). Although a corporate environmental policy is an important driver that shapes the organizational context, employees are less likely to become involved in, and contribute to, the management of a company's environmental impact when the policy is discarded or poorly communicated by line managers. A study of environmentally proactive firms by Ramus (2001) presents a strong case in this regard by indicating that lack of supervisory encouragement through

open communication can have counterproductive consequences by locally short-circuiting, undermining, or annihilating organizational environmental efforts.

Conversely, however, even in the absence of a clear direction from corporate leadership, managers can motivate employee engagement in voluntary green behaviors, not least through employee empowerment and quality relationships (Ramus & Steger, 2000). Indeed, as highlighted by Cantor et al. (2012), because they are more actively involved with each other, “employees attend more to the words and actions of immediate supervisors [as opposed to those of top management]” (pp. 37-38). That is, in leading by example, such as by voluntarily sharing information regarding ecological issues, enhancing employee knowledge and understanding, valuing feedback, and involving people in problem solving by encouraging environmental suggestions, supervisors are likely to develop employee potentials and skills. Therefore, by helping individuals in organizations to look at environmental issues with a new perspective, it is reasonable to think that supervisory support behaviors will influence the employee discretionary sense of attachment and responsibility to environmental concerns in the workplace. In addition, because in daily organizational life individuals make spontaneous inferences about the desirability of citizenship behaviors (Daily et al., 2009; Paillé et al., 2013), and because the relationship between supervisory support and environmental initiatives is one of the best known in the literature, we posited the following two hypotheses:

Hypothesis 3: Supervisory support is positively related to environmental citizenship behaviors.

Hypothesis 4: Employee environmental commitment also mediates the positive relationship between supervisory support and environmental citizenship behaviors.

Until now, we have suggested that an employee’s level of involvement in environmental affairs was the expression of his or her sense of commitment to environmental concerns in the work context, and that such commitment was separately influenced by individual, organizational, and supervisory factors. However, the picture cannot be complete without

considering the interactive dynamic between person and context (Chou, 2014; Collier & Esteban, 2007; Tudor et al., 2008). Most psychological research on employee pro-environmental behaviors tends to overlook relationships between individual-level and organizational-level determinants (Lo et al., 2012; Lülfs & Hahn, 2014). In the next subsection, we attempt to address this shortcoming by contemplating how individual values may interact with those of the organization and its management to shape the environmental commitment of employees.

3.3.2 The moderating role of personal environmental beliefs

Despite theoretical claims, there is a lack of understanding in the corporate greening and organizational behavior literature of the mechanisms underlying employee attitudinal and behavioral responses to corporate environmental citizenship. Although Tudor et al. (2008) established in a case study of environmental behaviors within a large public organization that individual beliefs, corporate values, and managerial support combine in a holistic and interrelated conceptual framework, the social-psychological processes at work have not been empirically examined (for an exception, see Chou, 2014). In a review of the literature on corporate social responsibility and employee commitment, Collier and Esteban (2007) reflected on the mutually reinforcing relationship between individual values and organizational attributes. The authors argued that the translation of companies' socially responsible practices into personal commitment is dependent on people's senses of self and belief systems. When employees perceive that their ethics align with those of the organization, they derive greater meaning from their work and look for opportunities for value expression, which, in turn, contributes to negotiating and fashioning organizational practices.

Corporate policies and managerial behaviors that embody a social objective provide salient cues that help shape the context in which employees are immersed (e.g., Grant et al., 2008; C. P. Lin et al., 2010). Theoretical research on corporate citizenship stresses that when an organization promotes a valued cause, employees are likely to demonstrate, following an ideological exchange, endorsement of the cause in support of the organization

(Aguilera et al., 2007; D. W. Hart & Thompson, 2007). Socially responsible practices are unique targets of commitment because of their ability to transcend organizational boundaries. However, the personal feelings and sense of responsibility associated with contributing to a particular cause depend on evaluations employees make about the issue at hand (Bingham et al., 2013). Employee commitment is volitional and adaptive, and is affected by motivational and regulatory processes. Although external influences exert socialization pressures and may limit individual autonomy without people realizing it (e.g., Y. C. Lin & Chang, 2012), commitment is deeper when the objective is valued and the source of regulation experienced as internal (Meyer et al., 2004). Assuming that employees adhere to the behaviors, norms, and standards promoted by the organization, the alignment of individual and organizational values is likely to increase and sustain employee commitment to the targets they perceive as most meaningful. This is consistent with the person-organization fit literature (see, e.g., Kristof, 1996) the theoretical underpinnings of which notably imply that “commitment toward an organization-sponsored cause ... might be based on the degree to which the cause aligns with the employee’s values or beliefs” (Bingham et al., 2013, p. 178).

With respect to corporate greening, Chou (2014) interestingly found that when environmental policies are strongly held and perceived, individuals rely less on their personal dispositions. Yet the employees who are most likely to rally around and share the environmental concern expressed by organizational and managerial actions are those who see importance and significance in the greening process by virtue of their own pro-environmental beliefs (Collier & Esteban, 2007; Hoffman, 1993). According to Daily et al. (2009), employees who envision nature as a fragile resource that is severely abused by human activities should be more responsive to policies and behaviors supportive of the environment and feel more drawn toward environmental protection on the job. By perceiving that their affective and normative preferences can be realized in the workplace, green believers are likely to reciprocate what they construe as benevolent and caring dispositions of the organization, not least by making a higher level of environmental commitment. Similarly, because commitments build on people’s evaluation regarding the desirability of a behavior, it is reasonable to think that employees with a strong ecological

worldview would experience an increased sense of attachment and responsibility to environmental concerns as a result of supervisory encouragement (Daily et al., 2009). Therefore, we hypothesized the following:

Hypothesis 5a: The positive relationship between perceived corporate environmental policy and employee environmental commitment is stronger for individuals with high (versus low) levels of personal environmental beliefs.

Hypothesis 5b: The positive relationship between supervisory support behaviors and employee environmental commitment is stronger for individuals with high (versus low) levels of personal environmental beliefs.

3.4 Method

3.4.1 Participants

An online survey assuring respondents of anonymity was sent in 2013 to 3,233 employees previously enrolled in the bachelor's and master's programs of a French business school. Of the 665 questionnaires that were returned (21% response rate), 134 were discarded either because relevant data was missing or because the respondent was upper management and did not fit the target population, reducing the final sample to 531 individuals. Sixty-three percent of the participants were female, 61% were 30 years of age or under (93% were 40 years of age or under), 83% had five years or less of organizational tenure, 82% had a master's degree (which is the standard diploma in France to access the white-collar job market), and 71% worked in the service industry (67% in men and 74% in women). Twenty-two percent of the participants were non-management employees, 37% were in lower management position and 41% were middle management. Finally, seven percent worked for organizations with 10 employees or less, 15% for organizations with 11 to 50 employees, 22% for organizations with 51 to 250 employees, 14% for organizations with 251 to 500 employees and 42% for organizations that employed more than 500 employees.

3.4.2 Endogenous variables

Environmental commitment. Employee commitment to environmental concerns in the workplace was assessed using seven items that we derived from Meyer and colleagues' measures of organizational commitment (Allen & Meyer, 1990) and commitment to change (Herscovitch & Meyer, 2002). Items assessed respondents' psychological state (and not an attitude or a behavioral intention) on a 6-point scale ranging from 1 = *strongly disagree* to 6 = *strongly agree*. Examples include "The environmental concern of my company means a lot to me," "I feel a sense of duty to support the environmental efforts of my company" and "I really feel as if my company's environmental problems are my own." The scale demonstrated good internal consistency, yielding a coefficient alpha of .90, with corrected item-total correlations ranging from .53 to .82. The factor loadings were all statistically significant ($p < .01$) and greater than .50 (ranging from .53 to .89), supporting the convergent validity of the scale items. Further evidence of adequate psychometric properties (Jöreskog's rho index of composite reliability and the average variance extracted) is also presented in the Results section and summarized in Table 1.

Citizenship behaviors. Seven items developed by Boiral and Paillé (2012) were used to measure how employees go about initiating innovative and spontaneous behaviors directed at environmental improvement. The items developed by Boiral and Paillé (2012) were chosen for this study because they are relatively general and unspecific, and can therefore apply to various "organizations, activity sectors, occupations or circumstances" (p. 435). Indeed, the more specific the behaviors are, the less they tend to generalize to different types of organizations, industries, and occupational activities. Examples of items are "I encourage my colleagues to adopt more environmentally conscious behaviors," "I stay informed of my company's environmental efforts," "I make suggestions about ways to protect the environment more effectively" and "I volunteer for projects or activities that address environmental issues in my company." Respondents were asked to rate each item from 0 to 10 with 0 = *no, absolutely not* and 10 = *yes, absolutely*. Cronbach's alpha for this measure was .94.

The items used to assess employee environmental commitment and environmental citizenship behaviors appear in Appendix.

3.4.3 Exogenous variables

Environmental beliefs. Following Andersson et al. (2005), ecological worldviews were assessed with the five items from the New Ecological Paradigm scale (Dunlap, Van Liere, Mertig, Catton, & Howell, 1992) used by Stern, Dietz, Abel, Guagnano, and Kalof (1999). Sample items included “The balance of nature is strong enough to cope with the impacts of modern industrial nations” (as a reverse item) and “Humans are severely abusing the environment.” Scale anchors ranged from 1 = *strongly disagree* to 6 = *strongly agree*. The reliability coefficient was acceptable ($\alpha = .72$).

Environmental policy. Following Ramus and Steger (2000), we used perceived environmental policy as indication of an organization’s internal support and encouragement for environmental protection. Five items were used to assess respondents’ knowledge of the existence in their company of a global environmental policy, of specific targets for environmental performance, of the use of an environmental management system, of environmental considerations in purchasing decisions, and of environmental training programs. Each item was rated on a 5-point scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. Cronbach’s alpha for this measure was .89.

Supervisory support. Perception of line manager support for environmental improvement was assessed using five supervisory behaviors identified by Ramus (2001) as being of value to employees. The items are “My immediate superior, ...Encourages environmental initiatives,” “...Makes sure that employees develop environmental skills,” “...Listens carefully to and values inputs on environmental topics,” “...Gives complete and accurate information regarding environmental issues,” and “...Involves employees in environmental problem solving.” The scale ranged from 1 = *strongly disagree* to 5 = *strongly agree*. The coefficient alpha was .94.

Because respondents completed multiple scales at the same point in time, we varied the number of anchor points across measures in order to reduce the possibility that some of the covariation among the constructs examined could be “the result of the consistency in the scale properties rather than the content of the items” (P. M. Podsakoff, MacKenzie, Lee, & Podsakoff, 2003, p. 884). According to N. P. Podsakoff, Whiting, Welsh, and Mai (2013), this is a reasonable strategy that has little effect on scale psychometrics and tends to significantly decrease systematic bias (in comparison to the same number of anchor points across measures) in self-rating, cross-sectional studies.

3.4.4 Control variables

Demographic variables. Previous research suggests potential associations between demographic characteristics and workplace pro-environmental behaviors (Andersson & Bateman, 2000, Lamm et al., 2013). As such, we controlled for gender (1 = male, 2 = female), age (1 = 30 years or under, 2 = 31–40 years, 3 = 41–50 years, 4 = 51–60 years, 5 = 61 years or over), education (1 = high school graduate, 2 = two year degree, 3 = bachelor’s degree, 4 = master’s degree, 5 = doctorate or equivalent), organizational tenure (1 = five years or less, 2 = 6–10 years, 3 = 11–15 years, 4 = 16–20 years, 5 = 21–25 years, 6 = 26 years or more), job level (1 = non-management, 2 = lower management, 3 = middle management), industry (1 = service sector, 2 = manufacturing sector), and organizational size (1 = 10 employees or less, 2 = 11–50 employees, 3 = 51–250 employees, 4 = 251–500 employees, 5 = over 500 employees).

Social desirability. Because individuals might try to present themselves in a more favorable light when asked about topics such as environmental ethics, we controlled for social desirability. A short, six-statement form of the scale by Crowne and Marlowe (1960) validated by Fischer and Fick (1993) with sample items “I sometimes feel resentful when I don’t get my way” (as a reverse item) and “I am always courteous, even to people who are disagreeable,” was included in the questionnaire. Scale anchors ranged from 1 = *strongly disagree* to 6 = *strongly agree*. The reliability coefficient for this measure ($\alpha = .60$) was below the .70 standard.

3.4.5 Data analysis

The research model involved hypotheses at the individual and sub-group levels of analysis, and was tested in two steps (Williams, Edwards, & Vandenberg, 2003). First, Hypotheses 1 to 4 were tested using the full data sample ($N = 531$). The model was estimated with no control variables, and then estimated again controlling for demographics (i.e., gender, age, education, tenure, job level, industry, and organizational size) and for social desirability. We used a composite variable for social desirability in order to limit the number of parameters to estimate. Control variables were allowed to correlate freely with the exogenous variables and with each other. Second, Hypotheses 5a and 5b were analyzed using the multi-sample invariance technique, with low and high levels of the moderator treated as different groups (Wegener & Fabrigar, 2000). A dichotomous, composite variable was computed to represent subgroups of individuals with weak ($n = 278$) and strong ($n = 253$) personal environmental beliefs. Values equal to the median were equally split between the two groups as it provides a more conservative test of moderation effect. Table 1 presents the summary statistics for both groups as well as for the full sample.

Model estimations were conducted with the EQS 6.2 structural equation modeling program (Bentler, 2006), using the robust covariance matrix by the Satorra-Bentler maximum likelihood procedure to deal with multivariate non-normality of the data (Byrne, 2008; Satorra & Bentler, 1994). This method of estimation accepts the standard normal theory, but scales the test statistics in relation to non-normality of observations.

Table 1: Summary statistics and zero-order correlations

Variable	Min-	Grp 1	Grp 1	Grp 2	Grp 2	Total	Total													
	Max	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Environmental beliefs (Weak = 1, Strong = 2)	1-2	—	—	—	—	1.48	0.50	—												
2. Gender (Male = 1, Female = 2)	1-2	1.62	0.49	1.66	0.48	1.63	0.48	.04	—											
3. Age	1-4	1.46	0.66	1.50	0.69	1.48	0.67	.03	-.15	—										
4. Level of education	1-5	3.77	0.61	3.79	0.55	3.78	0.58	.02	.03	-.17	—									
5. Organizational tenure	1-6	1.23	0.65	1.28	0.70	1.25	0.67	.04	-.08	.59	-.14	—								
6. Job level	1-3	2.20	0.77	2.18	0.78	2.19	0.77	-.01	-.19	.33	.24	.25	—							
7. Social desirability	1-6	3.94	0.65	3.96	0.74	3.95	0.69	.01	.12	.00	-.09	-.02	-.04	—						
8. Industry (Serv = 1, Mfg = 2)	1-2	1.31	0.46	1.26	0.44	1.29	0.45	-.06	-.07	.04	.19	.01	.26	.02	—					
9. Organization size	1-5	3.78	1.30	3.64	1.34	3.71	1.32	-.05	-.10	.05	.01	.12	.22	.08	.24	—				
10. Environmental policy	1-5	3.12	1.11	3.01	1.19	3.06	1.15	-.06	-.10	.01	.08	.11	.07	.12	.24	.41	(.90/.64)			
11. Supervisory support	1-5	2.48	1.11	2.51	1.21	2.49	1.16	.02	-.05	-.05	.06	.06	-.03	.09	.09	.02	.62	(.94/.75)		
12. Environmental commitment	1-6	4.20*	0.96	4.78*	0.83	4.48	0.95	.31	.10	-.06	.08	.08	-.02	.03	.01	.06	.35	.48	(.91/.58)	
13. Citizenship behaviors	0-10	4.05*	2.29	4.93*	2.67	4.47	2.51	.18	-.04	.08	.01	.08	.02	.03	-.05	-.17	.19	.49	.62	(.94/.67)

Note. Group 1 = individuals with weak environmental beliefs ($n = 278$); group 2 = individuals with strong environmental beliefs ($n = 253$). Mean differences significant at $p < .05$ are indicated by an asterisk (*). $N = 531$ for all variables. Correlations larger than $|.12|$ are significant at $p < .01$ and those larger than $|.09|$, at $p < .05$. The first entry on the diagonal is Jöreskog's rho index of composite reliability (ρ) and the second is the average variance extracted by the construct ($\rho_{vc(\eta)}$). Where latent factor variables are involved (i.e., environmental policy, supervisory support, environmental commitment, and citizenship behaviors), the correlations have been corrected for attenuation due to measurement error.

3.5 Results

3.5.1 Measurement model

Confirmatory factor analysis. The test of the measurement model indicated an adequate fit to the data (Bentler, 2006; Marsh, Hau, & Wen, 2004), a Satorra-Bentler chi-square ($SB\chi^2$) of 680.44 ($df = 245$, $N = 531$), a robust comparative fit index (CFI) of .95, a robust root mean square error of approximation (RMSEA) of .06, and an RMSEA confidence interval of .05, .06. The hypothesized factor loadings were all statistically significant ($p < .01$) and greater than .50, and Jöreskog's rho index of composite reliability (ρ) and the average variance extracted ($\rho_{vc(\eta)}$) from the constructs were, respectively, above the .70 and .50 threshold values (see Table 1), thus verifying the convergent validity of the scales at both the item and construct level (Fornell & Larcker, 1981; Hair, Black, Babin, & Anderson, 2010). Additionally, because each construct shared more variance with its items than it did with other constructs in the model (i.e., all factor correlations were less than .70), the scales ratified discriminant validity. In brief, the psychometric properties of the measurement model were satisfactory.

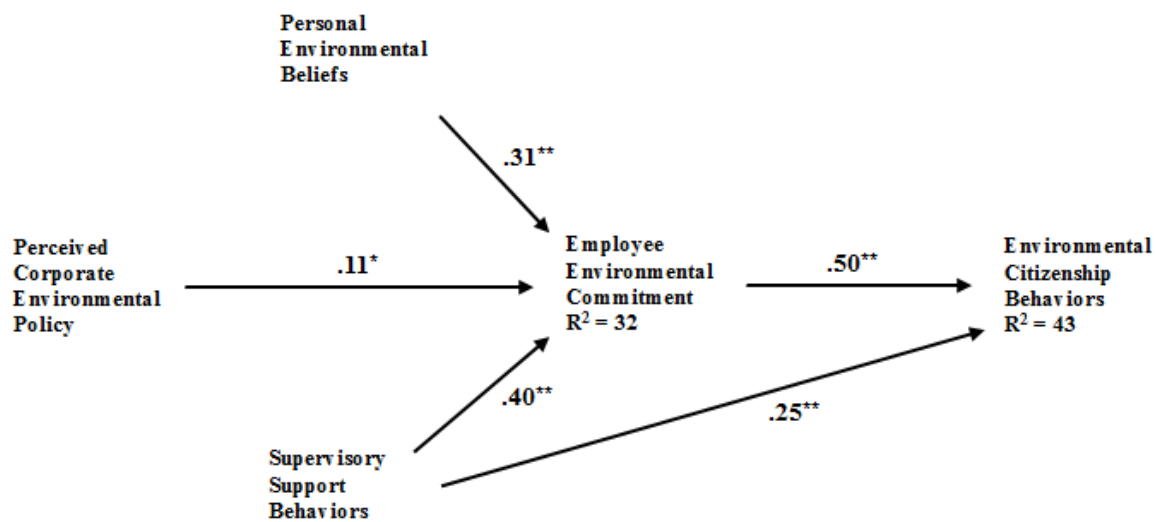
Common method variance. Because the study was cross-sectional and used self-report measures, we controlled for common method bias to ensure that systematic error variance did not account for the observed relationships between the constructs. Given the potentially sensitive nature of environmental topics, we re-estimated the measurement model with social desirability as a latent method factor to partition the variance between trait, method, and uniqueness (see P. M. Podsakoff et al., 2003, 2012). Of the method factor loadings, only one was found to be statistically significant, thereby minimizing concerns about social desirability. However, because other possible causes of method variance may contaminate the data (e.g., consistency motifs, acquiescence, implicit theories), we also re-estimated the model using the single unmeasured latent method factor technique, which indiscriminately controls “for all systematic sources of bias” (P. M. Podsakoff, MacKenzie, & Podsakoff, 2012, p. 553). For identification purposes, the method factor loadings were constrained to be equal. Although these were found to be statistically significant, the results indicated

neither improvement in fit indices ($SB\chi^2 = 679.91$ with 244 *df*, CFI = .95, RMSEA = .06, RMSEA confidence interval = .05, .06) nor substantive differences in parameter estimates (the method factor represented only a small portion, less than 10%, of the total variance), suggesting that common method bias was not a serious threat to the validity of our findings.

3.5.2 Hypothesis testing

Individual level. The fit indices for the proposed structural model were $SB\chi^2 = 748.61$ with 269 *df* ($N = 531$), CFI = .95, RMSEA = .06, and RMSEA confidence interval = .05, .06. As observed in Figure 2, the proposed relationships between the variables were all positive and significant. Additionally, the strength of the coefficients remained consistent when controlling for demographic variables (i.e., gender, age, education, tenure, job level, industry, and organizational size) and for social desirability. Of the eight control variables, only the paths from gender, age, and organizational size were significant (see Table 2), meaning that an employee’s level of environmental citizenship behaviors was independent, in our study, of education, tenure, job level, industry, and social desirability.

Figure 2: Standardized path estimates of the research model



Note. Parameters for the measurement portion and disturbance terms are not presented for the sake of parsimony.
 $* p < .05$; $** p < .01$.

Table 2: Standardized parameter estimates with and without control variables

Description of parameter	Full Model	Full model with control variables
Environmental beliefs → Environmental commitment	.31**	.31**
Environmental policy → Environmental commitment	.11*	.12*
Supervisory support → Environmental commitment	.40**	.40**
Environmental commitment → Citizenship behaviors	.50**	.53**
Supervisory support → Citizenship behaviors	.25**	.25**
Gender → Citizenship behaviors	—	-.08*
Age → Citizenship behaviors	—	.12**
Education → Citizenship behaviors	—	-.03
Tenure → Citizenship behaviors	—	-.05
Job level → Citizenship behaviors	—	.07
Industry → Citizenship behaviors	—	-.06
Organization size → Citizenship behaviors	—	-.21**
Social desirability → Citizenship behaviors	—	-.01
SB χ^2 (df)	680.44 (245)	1107.67 (437)
CFI	.95	.93
RMSEA with confidence interval 90%	.06 [.05, .06]	.05 [.05, .06]

Note. $N = 531$ for all variables. SB χ^2 , Satorra-Bentler chi-square; CFI, robust comparative fit index; RMSEA, robust root mean square error of approximation. Control variables were allowed to correlate freely with the exogenous variables and with each other.

* $p < .05$; ** $p < .01$.

Hypotheses 1, 2 and 4 predicted that employee environmental commitment would mediate the positive effects of personal environmental beliefs, corporate environmental policy and supervisory support, respectively, on environmental citizenship behaviors. To test these hypotheses, mediation analyses were performed using bootstrap simulation with replacement from the full sample (Shrout & Bolger, 2002). Following the recommendation by Preacher and Hayes (2008), we constructed a 95% bias-corrected confidence interval (Efron, 1987) for the size of each indirect effect, using the estimates from 5,000 random replicates. The results indicated that all indirect effects were significant at the 5% level, supporting Hypotheses 1, 2 and 4.

More specifically, the mediation coefficient of personal environmental beliefs on environmental citizenship behaviors was .15, and the 95% confidence interval excluded zero (.12, .21), thereby supporting Hypothesis 1. The mediation effect of corporate environmental policy on environmental citizenship behaviors was .06, and the 95% confidence interval did not include zero (.01, .11), thereby supporting Hypothesis 2. Finally, the indirect effect of supervisory support on environmental citizenship behaviors was .20, with the 95% confidence interval excluding zero (.16, .26), thereby supporting Hypothesis 4.

In addition, Hypothesis 3 predicted a direct link between supervisory support and environmental citizenship behaviors. The standardized parameter estimates of the structural model indicated that the path coefficient for this relationship was positive and significant ($\beta = .25, p < .01$), thereby supporting Hypothesis 3 along with Hypothesis 4.

Sub-group level. Turning now to Hypotheses 5a and 5b, moderation was examined by means of a multi-sample invariance analysis between subgroups of individuals exhibiting weak versus strong personal environmental beliefs. The results of the median split analysis indicated that both samples were homogeneous and shared the same characteristics. As can be seen in Table 1, there was no significant difference between the two groups in terms of gender, age, education, tenure, job level, industry, and organizational size, nor in terms of social desirability, perceived corporate environmental policy, and supervisory support behaviors. Therefore, it allowed us to compare both groups controlling for demographics as well as for workplace perceptions of support for the environmental commitment of employees, thereby singling out the effect of personal environmental beliefs.

We started the multi-sample invariance analysis with a test of measurement equivalence in order to verify that both subgroups also shared a common frame of reference in defining the latent constructs (see Vandenberg & Lance, 2000). As such, the structural model presented in Figure 2, less the link between personal environmental beliefs and environmental commitment, was simultaneously estimated for the two samples (i) with no inter-group restrictions (test of configural equivalence) and (ii) with all factor loadings

constrained to be equal across samples (test of metric equivalence). Because the fit indices for the configural model were adequate ($SB\chi^2 = 978.57$ with 492 *df*, CFI = .95, RMSEA = .06, RMSEA confidence interval = .05, .07), and the nested metric model produced no decrement in fit ($\Delta SB\chi^2 = 26.83$ with $\Delta df = 20$, $p > .05$), measurement invariance was supported (Bentler, 2006; Byrne, 2008). Then, the positive moderating effect of personal environmental beliefs on the relationships of corporate environmental policy and supervisory support behaviors with employee environmental commitment (i.e., Hypothesis 5a and 5b, respectively) was tested by imposing inter-group equality constraints on these parameters. Because the deterioration in model fit was significant in comparison to the metric model ($\Delta SB\chi^2 = 12.94$ with $\Delta df = 2$, $p < .05$), we released the restriction on the regression path between environmental policy and employee commitment, as suggested by the Lagrange multiplier test ($p < .05$, Bentler, 2006; Byrne, 2008). Interestingly, however, Hypothesis 5a was not supported as the difference between the two groups was in the opposite direction of that hypothesized, an unexpected finding (parameters estimates for both levels of the moderator are shown in Table 3). Finally, the results suggested no significant change in model fit compared to the metric model ($\Delta SB\chi^2 = 2.50$ with $\Delta df = 1$, $p > .05$), thereby rejecting Hypothesis 5b.

Table 3: Standardized parameter estimates for both levels of the moderator

Description of parameter	Weak environmental beliefs (<i>n</i> = 278)	Strong environmental beliefs (<i>n</i> = 253)
Environmental policy → Environmental commitment	.19*	.04ns
Supervisory support → Environmental commitment	.45**	.38**
Environmental commitment → Citizenship behaviors	.38**	.54**
Supervisory support → Citizenship behaviors	.35**	.21**
<i>R</i> ² Environmental commitment	.34	.17
<i>R</i> ² Citizenship behaviors	.43	.43

Note. The positive moderating effect of personal environmental beliefs was tested on the relationships between perceived corporate environmental policy and employee environmental commitment (Hypothesis 5a), and between supervisory support behaviors and employee environmental commitment (Hypothesis 5b). Only the relationship between environmental policy and employee commitment was statistically non-invariant across the moderator subgroups.

* $p < .05$; ** $p < .01$.

3.6 Discussion

The purpose of this investigation was to gain a better understanding of the social-psychological mechanisms leading individuals in organizations to engage in environmental citizenship behaviors, which entail keeping abreast of, and participating in, the environmental affairs of a company. Informed by the corporate greening and organizational behavior literature, we suggested that an employee's level of involvement in the management of a company's environmental impact was the overt manifestation of his or her discretionary sense of commitment to environmental concerns in the work context, and that such commitment developed through the interplay of individual, organizational, and supervisory factors. Our general findings support the idea that when environmental protection is valued and encouraged by the company and its representatives, i.e. line managers, organization members are more likely to experience a volitional sense of attachment and responsibility to corporate environmental goals and values, which is enacted through citizenship behaviors. Further, we also expected that individual ecological worldviews would moderate, that is, strengthen, the environmental commitment of employees via identification with, and adherence to, the socially responsible cause embodied by the organization and/or its managerial staff. However, it did not. Interestingly, the data indicated that employees with strong (versus weak) personal environmental beliefs did not attend more to the words and actions of supervisors, and that corporate environmental policy was, on the contrary, more likely to influence an employee's level of environmental commitment when he or she held weak personal ecological beliefs.

3.6.1 Contribution of the study

This study makes several contributions to the corporate greening and organizational behavior literature. First, it extends recent research on environmental citizenship and related pro-environmental behaviors in the work context by providing further insight into the processes underlying employee willingness to sustain and support the environmental efforts of a company. The results are consistent with the view that personal attitudes, corporate values, and supervisory support combine in a holistic and interrelated conceptual

framework to ultimately affect employee green behaviors (Collier & Esteban, 2007; Daily et al., 2009; Tudor et al., 2008). While most research tends to focus on one or two categories of determinants in isolation, we show that a set of individual, organizational, and managerial influences each account for unique variance in the level of employee environmental commitment and that personal environmental beliefs play an unexpected moderating role in this regard. The data support the claim by Ramus and Steger (2000) that policies potentially have indirect or conditional effects on the discrete, innovative and spontaneous acts of employees. This complements previous findings suggesting that the strength of support or norms for environmental behaviors, as conveyed by company practices, are attended by employees, who tend to internalize the perceived needs of the organization in exchange for approval in the workplace (Andersson et al., 2005; Cantor et al., 2012; Norton et al., 2014; Paillé, Boiral, & Chen, 2013). In our sample, this seemed to be especially true of employees with weak (as opposed to strong) personal ecological beliefs, whose environmental commitment was less self-determined and appeared to have a stronger external focus, i.e. to be evaluated against a moral standard rather than being valued for itself.

Second, this study is among the first to conceptualize and provide quantitative data about employee environmental commitment by applying theoretical research on workplace commitments to socially responsible organizational practices (e.g., Bingham et al., 2013; Collier & Esteban, 2007; Meyer & Parfyonova, 2010). This is notable because, while individual commitment is an important theme in the corporate greening literature (Keogh & Polonsky, 1998; Mesmer-Magnus et al., 2012), it has not been satisfactorily addressed to encourage more systematic research (for an exception, see Cantor et al., 2012). Moreover, the exploration of employee environmental commitment may aid in the interpretation of mixed findings with respect to psychological antecedents of workplace pro-environmental behaviors. Indeed, while some researchers have found that employee green behaviors are directly influenced by environmental attitudes (e.g., Bissing-Olson et al., 2013; Lamm et al., 2013; Temminck et al., 2013), others have found that they are not (e.g., Andersson et al., 2005; Chou, 2014; Gadenne et al., 2009). Our data suggest that strong personal ecological beliefs are not necessary to develop a sense of attachment and responsibility to

environmental concerns in the workplace, but that such strong beliefs can compensate for poor (or poorly communicated) corporate environmental policy. Researchers have also found that environmental citizenship behaviors were influenced by employee commitment to the organization as a whole (e.g., Lamm et al., 2013; Paillé & Mejía-Morelos, 2014; Temminck et al., 2013); however, this relationship did not seem to hold when the model complexity increased (Paillé et al., 2013). Because “commitment to an organization (as it is typically conceptualized) binds an individual to stay and to comply with minimum requirements for employment” (Meyer et al., 2004, p. 994), getting involved in the environmental affairs of a company is not central to that commitment. Although employees may expand the implications of such commitment to activities that are ancillary to their core work, the best predictor of behavioral outcomes tends to remain the target-relevant commitment (Herscovitch & Meyer, 2002; Meyer & Herscovitch, 2001). In other words, employee environmental commitment should prove more reliable for explaining individual variability in workplace pro-environmental behaviors.

Third, the unexpected findings that people with strong versus weak personal ecological beliefs did not experience increased environmental commitment when they perceived organizational or supervisory support toward the environment challenge the current theoretical knowledge in the literature. In so doing, we shed interesting light on employee reactions to socially responsible practices and suggest that the processes through which the moral actions of employers interact with the beliefs of employees are more complex than is usually contemplated. What is remarkable is that the relationship between environmental policy and employee environmental commitment only held for individuals with weak personal environmental beliefs, and that the commitment of green believers appeared to be insensitive to (i.e., not reinforced by) perceptions of organizational encouragement vis-à-vis environmental protection.

Noteworthy, our results affirm those of Chou (2014), who found in a study of the Taiwan green hotel industry (at odds with her hypotheses) that a supportive atmosphere for environmental behaviors appealed more to employees low in personal environmental norms, whereas when “employees have stronger pro-environmental attitudes, green

organizational climates exert a weaker influence on their behavior” (p. 442). To some extent, this also seems consistent with Andersson et al. (2005), who found that irrespective of their ecological worldview, supervisors of a multinational corporation were attuned to organizational goals and expectations regarding environmental sustainability for pragmatic reasons arising from the employment relationship. If these findings were confirmed in other contexts, it would nuance the view that employee commitment to corporate social responsibility necessary increases when individual and organizational values are aligned. Ultimately, such value congruence may have a greater influence, through an identification process, on the development of employee commitment to the organization as a whole.

Despite the strong theoretical rationale of value congruence, or ideological exchange (e.g., D. W. Hart & Thompson, 2007; Kristof, 1996), there is emerging evidence that the effect of ethicality on individual behavior is complex and occasionally counterintuitive, both on (e.g., Chou, 2014) and off the job (e.g., Y-C Lin & Chang, 2012). Nevertheless, our results may be explained by the work motivation literature (e.g., Latham, 2007), in particular self-determination theory (Deci & Ryan, 1985). In brief, self-determination theory states that extrinsically motivated behaviors—behaviors whose outcome is instrumentally valued, rather than being enjoyable in themselves—vary along a continuum defined by the degree to which the motivations, or intentions to act, emanate from the self (Ryan & Deci, 2000). Although motivation is a broader concept than commitment (commitment reinforces motivation and embeds it), “both have been described as energizing forces with implications for behavior,” with regulatory processes ranging in terms of the relative strength, or salience, of external demand versus internal drive (Collier & Esteban, 2007; Meyer et al., 2004, p. 994). That is, the more individuals personally value an activity, feel competent to do it, and expect it to yield a meaningful outcome, the more the impetus for action is experienced as self-regulated and autonomous (as opposed to externally regulated, i.e. internally driven but with an external locus of causality).

Last, we confirm the key role of line managers in promoting and inspiring innovative and spontaneous green behaviors in the workplace (Cantor et al., 2012; Ramus, 2001; Ramus & Steger, 2000; Robertson & Barling, 2013), regardless of employees’ personal

environmental beliefs. This has important practical implications because it confirms that supervisory support behaviors that are subsumed in everyday organizational life do not go unnoticed by employees, but tend to be modeled and emulated, thereby nurturing and supporting corporate greening activities. As a consequence, business executives should make sure to provide line managers with undisclosed environmental information and sufficient slack resources to encourage efforts in a domain that is often ancillary to core managerial activities. With adequate knowledge of environmental issues and with the resources, the time, and the discretionary power to act accordingly, managers can successfully translate official/organizational-level environmental practices into informal/individual-level initiatives. In leading by example and including people in environmental affairs on a voluntary and spontaneous basis, they can increase employees' feelings of self-efficacy and behavioral control with regard to environmental initiatives, especially for those with weak personal ecological beliefs, and ultimately create the conditions of possibility for emancipation and change.

Another important practical implication of our study is that while organizations must encourage supervisory support for the environmental commitment of employees, they also need to make sure that their environmental policies, objectives and practices are actively communicated through internal channels in ways that are appealing to, and understood by, non-green believers. While the environmental citizenship behaviors of employees with strong ecological beliefs seem highly self-determined, those of employees holding weaker ecological inclinations appear more externally regulated. Although policies and management systems are important drivers that shape the work context, they need to be built in to increase knowledge and conscientiousness about environmental issues and eventually result in the adoption of organizational goals by employees. In this regard, corporate greening must be genuine as opposed to symbolic (Boiral, 2007; Collier & Esteban, 2007) if it is to foster widespread employee "buy-in." Indeed, employees may perceive the presence of a gap or discrepancies between environmental policies and actual practice as a form of organizational cynicism that would be detrimental to their environmental commitment. Conversely, management practices that are well integrated into

the workplace should encourage most employees to act in a pro-environmental fashion rather than simply preach to the converted.

3.6.2 Limitations and future research

Notwithstanding its contributions, the study has a number of limitations that warrant consideration in future research. First, the data came from a narrow demographic population (most participants were highly educated and were between 20 and 40 years of age) based on a convenience sample of French employees who were working in different companies and industries. This limits the generalizability of the results and also poses questions about the standard for behaviors in different industries. Although we carefully selected a measure of environmental citizenship behaviors assessing how employees go about initiating relatively general and unspecific environmental actions that can apply to various “organizations, activity sectors, occupations or circumstances” (Boiral & Paillé, 2012, p. 435), future research should more systematically examine how individual and organizational factors influence employee engagement in environmental affairs within the same industry sector, or within the same company, by reaching individuals who are more representative of the workforce at large. Purposive sampling should help overcome this limitation by selecting a relatively homogeneous population of organizations where the context, especially the standard for behaviors, can be controlled for a priori. A good example can be found in a study of the Taiwan green hotel industry by Chou (2014), who conducted her research among 65 tourism establishments formally recognized for their environmental efforts, through either certification, awards, or participation in a state-sponsored program.

Secondly, while a number of methodological precautions were taken to limit the effects of common method variance and to control for social desirability, it is important to recognize that the study was cross-sectional and used self-report measures. Therefore, future research could more systematically examine, following Tudor et al. (2008), stated versus actual environmental behaviors. Although it will prove challenging at the individual level of analysis, a comparison of stated collective behavioral norms versus actual

collective outcomes is both possible and desirable at the group, department, and building level. Thirdly, we tested a relatively comprehensive but parsimonious model that examined only one behavioral implication of employee environmental commitment. Even if environmental citizenship behaviors in the workplace denote a broad-based pattern of conduct, further research is required to explore the extent to which environmental commitment influences task-related green behaviors and job performance. More generally, due to the novelty of the construct, there is a need to better understand the nomological network surrounding this concept.

Fourthly, in light of the unexpected finding that corporate environmental policy did not account for the environmental commitment of employees holding strong ecological beliefs, more research is needed to examine in further depth how personal and organizational values interact in influencing the pro-social behavior of individuals in the workplace. Because environmental citizenship behaviors appear to be more self-determined and valued for themselves by green believers, it would be interesting to study the impact of ethical value congruence on other employee outcomes, such as overall job satisfaction, morale, commitment to the organization and loyalty (see Hoffman, 1993). Despite theoretical claims or assumptions derived from idiosyncratic examples, there is indeed a lack of systematic research exploring the consequences that result from sincere and genuine exchanges of ideals between employers and employees. Conversely, future research could consider the relationship between self-determined motivation and pro-environmental attitudes and behaviors in the workplace by using, for example, the Motivation Toward the Environment Scale developed by Pelletier, Tuson, Green-Demers, Noels, and Beaton (1998) in the non-work domain.

Finally, it would also be worthwhile to consider the association between an individual's level of environmental citizenship in the workplace and his or her environmental citizenship behaviors in the wider society (e.g., Stern et al., 1999); or, phrased in another way, the relationship between general and organizational green citizenship. In work settings, barriers to environmental activism may be more intense and have a different focus

than within everyday life (Crane, 2000) and potentially challenge, or refine, our knowledge of the citizenship syndrome.

Appendix – Article 2

Environmental Commitment Scale

1. I really care about the environmental concern of my company.
2. I would feel guilty about not supporting the environmental efforts of my company.
3. The environmental concern of my company means a lot to me.
4. I feel a sense of duty to support the environmental efforts of my company.
5. I really feel as if my company's environmental problems are my own.
6. I feel personally attached to the environmental concern of my company.
7. I strongly value the environmental efforts of my company.

Environmental Citizenship Behaviors Items (Boiral and Paillé, 2012)

At work, even though I am not required to:

1. I suggest new practices that could improve the environmental performance of my company.
2. I encourage my colleagues to adopt more environmentally conscious behaviors.
3. I stay informed of my company's environmental efforts.
4. I make suggestions about ways to protect the environment more effectively.
5. I volunteer for projects or activities that address environmental issues in my company.
6. I spontaneously give my time to help my colleagues take the environment into account.
7. I undertake environmental actions that contribute positively to my company's image.

References – Article 2

- Aguilera, R. V., Rupp, D. E., Williams, C. A., & Ganapathi, J. (2007). Putting the S back in corporate social responsibility: A multilevel theory of social change in organizations. *Academy of Management Review*, 32(3), 836-863.
- Ajzen, I. (2001). Nature and operation of attitudes. *Annual Review of Psychology*, 52(1), 27-58.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Prentice-Hall, Englewood Cliffs, NJ.
- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology*, 63(1), 1-18.
- Andersson, L. M., & Bateman, T. S. (2000). Individual environmental initiative: Championing natural environmental issues in US business organizations. *Academy of Management Journal*, 43(4), 548-570.
- Andersson, L. M., Shivarajan, S., & Blau, G. (2005). Enacting ecological sustainability in the MNC: A test of an adapted value-belief-norm framework. *Journal of Business Ethics*, 59(3), 295-305.
- Bansal, P., & Roth, K. (2000). Why companies go green: A model of ecological responsiveness. *Academy of Management Journal*, 43(4), 717-736.
- Bentler, P. M. (2006). *EQS 6 structural equations program manual*. Encino, CA: Multivariate Software.
- Bingham, J. B., Mitchell, B. W., Bishop, D. G., & Allen, N. J. (2013). Working for a higher purpose: A theoretical framework for commitment to organization-sponsored causes. *Human Resource Management Review*, 23(2), 174-189.
- Bissing-Olson, M. J., Iyer, A., Fielding, K. S., & Zacher, H. (2013). Relationships between daily affect and pro-environmental behavior at work: The moderating role of pro-environmental attitude. *Journal of Organizational Behavior*, 34(2), 156-175.
- Boiral, O. (2002). Tacit knowledge and environmental management. *Long Range Planning*, 35(3), 291-317.
- Boiral, O. (2005). The impact of operator involvement in pollution reduction: Case studies in Canadian chemical companies. *Business Strategy and the Environment*, 14(6), 339-360.
- Boiral, O. (2007). Corporate greening through ISO 14001: A rational myth?. *Organization Science*, 18(1), 127-146.

- Boiral, O. (2009). Greening the corporation through organizational citizenship behaviors. *Journal of Business Ethics*, 87(2), 221-236.
- Boiral, O., & Paillé, P. (2012). Organizational citizenship behaviour for the environment: Measurement and validation. *Journal of Business Ethics*, 109(4), 431-445.
- Boiral, O., Talbot, D., & Paillé, P. (2013). Leading by example: A model of organizational citizenship behavior for the environment. *Business Strategy and the Environment*. (In press).
- Brown, R. B. (1996). Organizational commitment: Clarifying the concept and simplifying the existing construct typology. *Journal of Vocational Behavior*, 49(3), 230-251.
- Byrne, B. M. (2008). Testing for multigroup equivalence of a measuring instrument: A walk through the process. *Psicothema*, 20(4), 872-882.
- Cantor, D. E., Morrow, P. C., & Montabon, F. (2012). Engagement in environmental behaviors among supply chain management employees: An organizational support theoretical perspective. *Journal of Supply Chain Management*, 48(3), 33-51.
- Chou, C. J. (2014). Hotels' environmental policies and employee personal environmental beliefs: Interactions and outcomes. *Tourism Management*, 40, 436-446.
- Cohen, A. (2003). *Multiple commitments in the workplace: An integrative approach*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Cohen, A. (2007). Commitment before and after: An evaluation and reconceptualization of organizational commitment. *Human Resource Management Review*, 17(3), 336-354.
- Cohen, A., & Vigoda, E. (2000). Do good citizens make good organizational citizens? An empirical examination of the relationship between general citizenship and organizational citizenship behavior in Israel. *Administration & Society*, 32(5), 596-624.
- Collier, J., & Esteban, R. (2007). Corporate social responsibility and employee commitment. *Business Ethics: A European Review*, 16(1), 19-33.
- Cordano, M., & Frieze, I. H. (2000). Pollution reduction preferences of US environmental managers: Applying Ajzen's theory of planned behavior. *Academy of Management Journal*, 43(4), 627-641.
- Crane, A. (2000). Corporate greening as amoralization. *Organization Studies*, 21(4), 673-696.
- Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology*, 24(4), 349-354.

- Crozier, M., & Friedberg, E. (1980). *Actors and systems: The politics of collective action*. Chicago, IL: University of Chicago.
- Daily, B. F., Bishop, J. W., & Govindarajulu, N. (2009). A conceptual model for organizational citizenship behavior directed toward the environment. *Business & Society, 48*(2), 243-256.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York, NY: Plenum.
- Driscoll, C., & Starik, M. (2004). The primordial stakeholder: Advancing the conceptual consideration of stakeholder status for the natural environment. *Journal of Business Ethics, 49*(1), 55-73.
- Dunlap, R. E., Van Liere, K. D., Mertig, A. G., Catton, W. R., Jr. & Howell, R. E. (1992). *Measuring endorsement of an ecological worldview: A revised NEP Scale*. Unpublished paper presented at the annual Meeting of the Rural Sociological Society, Pennsylvania State University, August.
- Dunlap, R. E., Van Liere, K. D., Mertig, A. G., & Jones, R. E. (2000). Measuring endorsement of the New Ecological Paradigm: A revised NEP scale. *Journal of Social Issues, 56*(3), 425-442.
- Efron, B. (1987). Better bootstrap confidence intervals. *Journal of the American Statistical Association, 82*(397), 171-185.
- Egri, C. P., & Herman, S. (2000). Leadership in the North American environmental sector: Values, leadership styles, and contexts of environmental leaders and their organizations. *Academy of Management Journal, 43*(4), 571-604.
- Fischer, D. G., & Fick, C. (1993). Measuring social desirability: Short forms of the Marlowe-Crowne social desirability scale. *Educational and Psychological Measurement, 53*(2), 417-424.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equations models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39-50.
- Gadonne, D. L., Kennedy, J., & McKeiver, C. (2009). An empirical study of environmental awareness and practices in SMEs. *Journal of Business Ethics, 84*(1), 45-63.
- Gattiker, T. F., & Carter, C. R. (2010). Understanding project champions' ability to gain intra-organizational commitment for environmental projects. *Journal of Operations Management, 28*(1), 72-85.
- Graham, J. W. (1991). An essay on organizational citizenship behavior. *Employee Responsibilities and Rights Journal, 4*(4), 249-270.

- Grant, A. M., Dutton, J. E., & Rosso, B. D. (2008). Giving commitment: Employee support programs and the prosocial sensemaking process. *Academy of Management Journal*, 51(5), 898-918.
- Hair, J. F., Jr., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Upper Saddle River, NJ: Prentice Hall.
- Hanna, M. D., Newman, W. R., & Johnson, P. (2000). Linking operational and environmental improvement through employee involvement. *International Journal of Operations & Production Management*, 20(2), 148-165.
- Hart, D. W., & Thompson, J. A. (2007). Untangling employee loyalty: A psychological contract perspective. *Business Ethics Quarterly*, 17(2), 297-323.
- Hart, S. L. (1995). A natural-resource-based view of the firm. *Academy of Management Review*, 20(4), 986-1014.
- Herscovitch, L., & Meyer, J. P. (2002). Commitment to organizational change: extension of a three-component model. *Journal of Applied Psychology*, 87(3), 474-487.
- Hoffman, A. J. (1993). The importance of fit between individual values and organizational culture in the greening of industry. *Business Strategy and the Environment*, 2(4), 10-18.
- Inkeles, A. (1969). Participant citizenship in six developing countries. *The American political science review*, 63(4), 1120-1141.
- Katz, D., & Kahn, R. L. (1978). *The social psychology of organizations* (2nd ed.). New York, NY: Wiley.
- Keogh, P. D., & Polonsky, M. J. (1998). Environmental commitment: A basis for environmental entrepreneurship? *Journal of Organizational Change Management*, 11(1), 38-49.
- Kitazawa, S., & Sarkis, J. (2000). The relationship between ISO 14001 and continuous source reduction programs. *International Journal of Operations & Production Management*, 20(2), 225-248.
- Klein, H. J., Cooper, J. T., Molloy, J. C., & Swanson, J. A. (2014). The assessment of commitment: Advantages of a unidimensional, target-free approach. *Journal of Applied Psychology*, 99(2), 222-238.
- Klein, H. J., Molloy, J. C., & Brinsfield, C. T. (2012). Reconceptualizing workplace commitment to redress a stretched construct: Revisiting assumptions and removing confounds. *Academy of Management Review*, 37(1), 130-151.

- Kollmuss, A., & Agyeman, J. (2002). Mind the gap: Why do people act environmentally and what are the barriers to pro-environmental behavior?. *Environmental education research, 8*(3), 239-260.
- Kristof, A. L. (1996). Person-organization fit: An integrative review of its conceptualizations, measurement, and implications. *Personnel Psychology, 49*(1), 1-49.
- Lamm, E., Tosti-Kharas, J., & King, C. E. (2014). Empowering employee sustainability: Perceived organizational support toward the environment. *Journal of Business Ethics*. (In press).
- Lamm, E., Tosti-Kharas, J., & Williams, E. G. (2013). Read this article, but don't print it: Organizational citizenship behavior toward the environment. *Group & Organization Management, 38*(2), 163-197.
- Latham, G. P. (2007). *Work motivation: History, theory, research, and practice*. Thousand Oaks, CA: Sage.
- Lawler, E. J., Thye, S. R., & Yoon, J. (2009). *Social commitments in a depersonalized world*. New York, NY: Russell Sage Foundation.
- Lepoutre, J., & Heene, A. (2006). Investigating the impact of firm size on small business social responsibility: A critical review. *Journal of Business Ethics, 67*(3), 257-273.
- Lin, C. P., Lyau, N. M., Tsai, Y. H., Chen, W. Y., & Chiu, C. K. (2010). Modeling corporate citizenship and its relationship with organizational citizenship behaviors. *Journal of Business Ethics, 95*(3), 357-372.
- Lin, Y. C., & Chang, C. C. A. (2012). Double standard: The role of environmental consciousness in green product usage. *Journal of Marketing, 76*(5), 125-134.
- Lo, S. H., Peters, G. J. Y., & Kok, G. (2012). A review of determinants of and interventions for proenvironmental behaviors in organizations. *Journal of Applied Social Psychology, 42*(12), 2933-2967.
- Lülfes, R., & Hahn, R. (2013). Corporate greening beyond formal programs, initiatives, and systems: A conceptual model for voluntary pro-environmental behavior of employees. *European Management Review, 10*(2), 83-98.
- Lülfes, R., & Hahn, R. (2014). Sustainable behavior in the business sphere—A comprehensive overview of the explanatory power of psychological models. *Organization & Environment, 27*(1), 43-64.
- Marsh, H. W., Hau, K. T., & Wen, Z. (2004). In search of golden rules: Comment on hypothesis testing approaches to setting cutoff values for fit indexes and dangers in overgeneralizing Hu & Bentler's (1999) findings. *Structural Equation Modeling, 11*(3), 320-341.

- May, D. R., & Flannery, B. L. (1995). Cutting waste with employee involvement teams. *Business Horizons*, 38(5), 28-38.
- McKinsey and Company. (2011). The business of sustainability: McKinsey Global Survey results. *McKinsey Quarterly*, October. Accessed at http://www.mckinsey.com/insights/energy_resources_materials/the_business_of_sustainability_mckinsey_global_survey_results
- Mesmer-Magnus, J., Viswesvaran, C., & Wiernik, B. M. (2012). The role of commitment in bridging the gap between organizational sustainability and environmental sustainability. In S. E. Jackson, D. S. Ones, & S. Dilchert (eds.), *Managing HR for Environmental Sustainability* (pp. 155-186). San Francisco, CA: Jossey-Bass.
- Meyer, J. P., & Allen, N. J. (1997). *Commitment in the workplace: Theory, research, and application*. Thousand Oaks, CA: Sage.
- Meyer, J. P., Becker, T. E., & Vandenberghe, C. (2004). Employee commitment and motivation: a conceptual analysis and integrative model. *Journal of Applied Psychology*, 89(6), 991.
- Meyer, J. P., & Herscovitch, L. (2001). Commitment in the workplace: Toward a general model. *Human Resource Management Review*, 11(3), 299-326.
- Meyer, J. P., & Parfyonova, N. M. (2010). Normative commitment in the workplace: A theoretical analysis and re-conceptualization. *Human Resource Management Review*, 20(4), 283-294.
- Morrow, P. C. (1993). *The theory and measurement of work commitment*. Greenwich, CT: JAI.
- Nesse, R. M. (Ed.). (2001). *Evolution and the capacity for commitment* (Vol. 3). New York, NY: Russell Sage Foundation.
- Nooney, J. G., Woodrum, E., Hoban, T. J., & Clifford, W. B. (2003). Environmental worldview and behavior consequences of dimensionality in a survey of North Carolinians. *Environment and Behavior*, 35(6), 763-783.
- Norton, T. A., Zacher, H., & Ashkanasy, N. M. (2014). Organisational sustainability policies and employee green behaviour: The mediating role of work climate perceptions. *Journal of Environmental Psychology*, 38, 49-54.
- Ones, D. S., & Dilchert, S. (2012). Employee green behaviors. In S. E. Jackson, D. S. Ones, & S. Dilchert (eds.), *Managing human resources for environmental sustainability* (pp. 85-116). San Francisco, CA: Jossey-Bass.
- Organ, D. W. (1988). *Organizational citizenship behavior: The good soldier syndrome*. Lexington, MA: Lexington Books.

- Organ, D. W., Podsakoff, P. M., & MacKenzie, S. B. (2006). *Organizational citizenship behavior: Its nature, antecedents, and consequences*. Thousand Oaks, CA: Sage.
- Paillé, P., Boiral, O., & Chen, Y. (2013). Linking environmental management practices and organizational citizenship behaviour for the environment: A social exchange perspective. *The International Journal of Human Resource Management*, 24(18), 3552-3575.
- Paillé, P., Chen, Y., Boiral, O., & Jin, J. (2014). The impact of human resource management on environmental performance: An employee-level study. *Journal of Business Ethics*, 121(3), 451-466
- Paillé, P., & Mejía-Morelos, J. H. (2014). Antecedents of pro-environmental behaviours at work: The moderating influence of psychological contract breach. *Journal of Environmental Psychology*, 38, 124-131.
- Pandey, N., Rupp, D. E., & Thornton, M. A. (2013). The morality of corporate environmental sustainability: A psychological and philosophical perspective. In A. H. Huffman, & S. R. Klein (eds.), *Green organizations: Driving change with I-O psychology* (pp. 69-92). New York, NY: Routledge.
- Pelletier, L. G., Tuson, K. M., Green-Demers, I., Noels, K., & Beaton, A. M. (1998). Why are you doing things for the environment? The motivation toward the environment scale (MTES). *Journal of Applied Social Psychology*, 28(5), 437-468.
- Perez, O., Amichai-Hamburger, Y., & Shterental, T. (2009). The dynamic of corporate self-regulation: ISO 14001, environmental commitment, and organizational citizenship behavior. *Law & Society Review*, 43(3), 593-630.
- Podsakoff, N. P., Whiting, S. W., Welsh, D. T., & Mai, K. M. (2013). Surveying for “artifacts”: The susceptibility of the OCB–performance evaluation relationship to common rater, item, and measurement context effects. *Journal of Applied Psychology*, 98(5), 863-874.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879-903.
- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, 63, 539-569.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior research methods*, 40(3), 879-891.
- Ramus, C. A. (2001). Organizational support for employees: encouraging creative ideas for environmental sustainability. *California Management Review*, 43(3), 85-105.

- Ramus, C. A., & Killmer, A. B. C. (2007). Corporate greening through prosocial extrarole behaviours—A conceptual framework for employee motivation. *Business Strategy and the Environment*, 16(8), 554-570.
- Ramus, C. A., & Steger, U. (2000). The roles of supervisory support behaviors and environmental policy in employee “ecoinitiatives” at leading-edge European companies. *Academy of Management Journal*, 43(4), 605-626.
- Reichers, A. E. (1985). A review and reconceptualization of organizational commitment. *Academy of Management Review*, 10(3), 465-476.
- Remmen, A., & Lorentzen, B. (2000). Employee participation and cleaner technology: Learning processes in environmental teams. *Journal of Cleaner Production*, 8(5), 365-373.
- Robertson, J. L., & Barling, J. (2013). Greening organizations through leaders’ influence on employees’ pro-environmental behaviors. *Journal of Organizational Behavior*, 34(2), 176-194.
- Rothenberg, S. (2003). Knowledge content and worker participation in environmental management at NUMMI. *Journal of Management Studies*, 40(7), 1783-1802.
- Ruiz-Quintanilla, S. A., J. Bunge, A. Freeman-Gallant, & Cohen-Rosenthal, E. (1996). Employee participation in pollution reduction: A socio-technical perspective. *Business Strategy and the Environment*, 5(3), 137-144.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78.
- Satorra, A., & Bentler, P.M. (1994). Corrections to test statistics and standard errors in covariance structure analysis. In A. von Eye, & C.C. Clogg (eds.): *Latent variables analysis: Applications for developmental research* (pp. 399-419). Thousand Oaks, CA: Sage.
- Scott, D., & Willits, F. K. (1994). Environmental attitudes and behavior: A Pennsylvania survey. *Environment and Behavior*, 26(2), 239-260.
- Selznick, P. (1957). *Leadership in administration: A sociological interpretation*. New York, NY: Harper and Row.
- Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and nonexperimental studies: new procedures and recommendations. *Psychological Methods*, 7(4), 422.
- Smith, A. M., & O’Sullivan, T. (2012). Environmentally responsible behaviour in the workplace: An internal social marketing approach. *Journal of Marketing Management*, 28(3/4), 469-493.

- Starik, M. (1995). Should trees have managerial standing? Toward stakeholder status for non-human nature. *Journal of Business Ethics*, 14(3), 207-217.
- Starik, M., & Rands, G. P. (1995). Weaving an integrated web: Multilevel and multisystem perspectives of ecologically sustainable organizations. *Academy of Management Review*, 20(4), 908-935.
- Stern, P. C., Dietz, T., Abel, T., Guagnano, G. A., & Kalof, L. (1999). A value-belief-norm theory of support for social movements: The case of environmentalism. *Human ecology review*, 6(2), 81-98.
- Stern, P. C., Dietz, T., & Guagnano, G. A. (1995). The new ecological paradigm in social-psychological context. *Environment and behavior*, 27(6), 723-743.
- Stringer, L. (2010). *The green workplace: Sustainable strategies that benefit employees, the environment, and the bottom line*. New York, NY: Macmillan.
- Temminck, E., Mearns, K., & Fruhen, L. (2013). Motivating employees towards sustainable behaviour. *Business Strategy and the Environment*. (In press).
- Tudor, T. L., Barr, S. W., & Gilg, A. W. (2008). A novel conceptual framework for examining environmental behavior in large organizations: A case study of the Cornwall National Health Service (NHS) in the United Kingdom. *Environment and Behavior*, 40(3), 426-450.
- Vandenberg, R. J., & Lance, C. E. (2000). A review and synthesis of the measurement invariance literature: Suggestions, practices, and recommendations for organizational research. *Organizational Research Methods*, 3(1), 4-69.
- Van Dyne, L., Graham, J. W., & Dienesch, R. M. (1994). Organizational citizenship behavior: Construct redefinition, measurement, and validation. *Academy of management Journal*, 37(4), 765-802.
- Walley, E. E., & Stubbs, M. (2000). Termites and champions: Case comparisons by metaphor. *Greener Management International*, 29, 41-54
- Wegener, D. T., & Fabrigar, L. R. (2000). Analysis and design for nonexperimental data: Addressing causal and noncausal hypotheses. In H. T. Reis and C. M. Judd (eds.), *Handbook of research methods in social and personality psychology* (pp. 412-450). New York, NY: Cambridge University Press.
- Williams, L. J., Edwards, J. R., & Vandenberg, R. J. (2003). Recent advances in causal modeling methods for organizational and management research. *Journal of Management*, 29(6), 903-936.

Chapitre/Article 3. The influence of workplace social exchanges on employee eco-citizenship initiatives

4.1 Abstract

The purpose of this study was to examine the influence of multiple workplace social exchanges (with the organization, the supervisor, and the colleagues) on employee pro-environmental behavior. Data were gathered from a sample of 449 employees. The results showed that employee pro-environmental behavior was best predicted by relationships with co-workers, whereas relationships with the organization and the supervisor played an indirect role. Theoretical and managerial implications of our findings are discussed.

Keywords: Pro-environmental behavior, Workplace, Social exchanges, Mediation

L'influence des échanges sociaux au travail sur les initiatives éco-citoyennes des employés

Résumé

L'objectif de cette étude est d'examiner l'influence d'échanges sociaux multiples au travail (avec l'organisation, le superviseur et les collègues) sur les comportements pro-environnementaux des employés. Les données ont été recueillies auprès d'un échantillon de 449 employés. Les résultats indiquent que les comportements pro-environnementaux des employés sont davantage influencés par les relations avec les collègues de travail, tandis que les relations avec l'organisation et le superviseur jouent un rôle indirect. Les implications théoriques et managériales sont discutées.

Mots-clés: Comportement pro-environnemental, Milieu de travail, Échanges sociaux, Médiation

4.2 Introduction

It is now difficult to deny the pervasive influence of human activities, not least organizational ones, on the natural environment (Stern, 2000). Organizations are expected to diminish their environmental impacts, and one way to do this is by leveraging employee behavior (e.g., Boiral, 2002; Hart, 1995). Stern (2000) has emphasized the importance of “clarifying the conditions under which individual influence leads to more pro-environmental organization decisions” (p. 528). Although management studies have identified various organizational and individual determinants of employees’ ecological initiatives (hereafter eco-initiatives), such as environmental management (e.g., Ramus & Steger, 2000), green human resource practices (see, e.g., Renwick, Redman, & Maguire, 2013), attitudes (e.g., Cordano & Frieze, 2000; Robertson & Barling, 2013), affective states (e.g., Bissing-Olson, Iyer, Fielding, & Zacher, 2013), or habits (e.g., Tudor, Barr, & Gilg, 2008), research in organizational settings remains scarce (Lülfs & Hahn, 2014; Ones & Dilchert, 2012) and fragmented (Starik & Kanashiro, 2013).

Starik and Kanashiro (2013) initiated an important discussion about the necessity to integrate new approaches, frameworks, and perspectives to develop a “proto-theory of sustainability management” (p. 8). They also invited scholars to explore “how traditional theories can be used to examine and advance sustainability management” (p. 11). Among these is the theory of planned behavior, a widely used framework to predict pro-environmental behaviors (e.g., Cordano & Frieze, 2000; Tudor et al., 2008). However, as highlighted by Lülfs and Hahn (2014), this theory primarily focuses on psychological factors, such as personal beliefs, attitudes, and norms, and tends to overlook relationships between individual- and organizational-level determinants. It is clear that workplace behaviors are not only influenced by personal factors, but also by contextual ones (see, e.g., Andersson, Shivarajan, & G. Blau, 2005). In this regard, social exchange theory (SET), one of the “most influential conceptual paradigms for understanding workplace behavior” (Cropanzano & Mitchell, p. 874), offers a promising framework for investigating the organizational context within which pro-environmental behaviors, in general, and eco-initiatives, in particular, arise and are sustained in the workplace.

Social exchange refers to the mutual relationships between two or more parties that are based on voluntary actions of reciprocity (P. Blau, 1964; Gouldner, 1960). The basic tenet of the theory is that when employees feel supported and valued in the workplace, they are likely to reciprocate by demonstrating positive work outcomes, including pro-social behaviors (Schaninger & Turnipseed, 2005). As such, SET may prove useful for studying environmental issues in the work context, especially as organizations increasingly attempt to build on and strengthen the environmental awareness of all employees (Hörisch, Freeman, & Schaltegger, 2014). For example, Bingham, Mitchell, Bishop, and Allen (2013) argued that when an organization sponsors or encourages a particular cause, employees tend to align their attitudes and behaviors, following an exchange orientation, with the cause in support of the organization. Despite theoretical developments, only a few empirical studies in the environmental literature connect SET to environmentally sustainable behavior in organizational settings. The main conclusions of this research are that individuals are more prone to perform actions geared toward the natural environment when they received support either from the organization (Lamm, Tosti-Kharas, & Williams, 2013; Temminck, Mearns, & Fruhen, 2013) or the supervisor (Ramus, 2001; Robertson & Barling, 2013), and that, taken together, each focus of support accounts for unique variance in employee pro-environmental behavior (Paillé, Boiral, & Chen, 2013; Ramus & Steger, 2000).

The purpose of this paper is to advance this line of research in two main ways. First, it explores different foci of support and commitment—the organization, the supervisor, and the colleagues—simultaneously. Employees develop multiple social exchanges in the workplace, and there is much to learn by studying them in a holistic rather than in an isolated manner (Cole, Schaninger, & Harris, 2002). To our knowledge, this study is the first to explore the added effect of organization, supervisor, and colleagues foci of support on employee eco-initiatives, and provides a valuable contribution to the organizational behavior and environmental literature. Second, in line with recent developments in social exchange theory (e.g., Lavelle, Rupp, & Brockner, 2007), we made the assumption that exchange relationships with colleagues would be the most influential to promote employees' innovative environmental behaviors, especially due to the number of

interactions that co-workers develop with each other every day (Chiaburu & Harrison, 2008). Our results support this view, and highlight the key role of co-workers' support and commitment in the environmental area.

The paper begins with the theoretical background of eco-initiatives and social exchanges in the workplace. Next, the research hypotheses are developed. The methodology and results are then presented. Finally, the implications of the paper are discussed in the context of the organizational behavior and environmental literature.

4.3 Theoretical background

4.3.1 Taking eco-initiatives

Although the key role played by employees in pollution prevention, waste management, and resource conservation has long been established in the environmental management literature (e.g., Boiral, 2002, 2005; Hanna, Newman, & Johnson, 2000; May & Flannery, 1995; Ramus & Steger, 2000), research on pro-environmental behaviors in the workplace has not been conducted in a systematic fashion. It is noteworthy, however, that Ones and Dilchert (2012) developed a comprehensive taxonomy of employee green behaviors called the "Green Five Taxonomy" (GFT). Based on the analysis of more than 3,000 activities that was obtained from a large spectrum of jobs, organizations, and industries in the United States and Europe, the GFT aims to encompass the whole range of green behaviors at work by providing a framework of employees' actions that impact the natural environment under five main analytical categories: conserving (i.e., reducing use, reusing, repurposing, and recycling), working sustainably (e.g., changing how work is done), avoiding harm (e.g., preventing pollution), influencing others (e.g., encouraging and supporting others), and taking initiative (e.g., initiating programs and policies). However, these categories are not completely mutually exclusive, and Ones and Dilchert (2012) have stressed that "taking initiative" comprises an instrumental set of actions describing "how employees go about initiating and promoting environmentally relevant behaviors that might, based on their content, fall into other categories" (p. 99, emphasis in original). In other words, individuals

who take initiative at work can serve as change agents whose actions can be directed at activities such as reducing resource consumption (i.e., conserving), developing greener products (i.e., working sustainably), or improving end-of-pipe pollution control (i.e., avoiding harm). Therefore, given the centrality and integrative nature of eco-initiatives to corporate greening, in the remainder of the paper we focus on these discrete, individual behaviors that facilitate the accomplishment of organizational environmental goals.

Taking eco-initiatives is about advancing the green agenda in the workplace by putting environmental interests first and suggesting new ideas, no matter how simple or complex they may be. In this light, there is (more often than not) a discretionary or entrepreneurial aspect to employees' initiatives toward the natural environment (e.g., Andersson & Bateman, 2000; Montiel, 2008). Because of the pressures of their jobs, most people have little time for promoting environmental issues, especially in the absence of support or incentive from leadership. As such, ecological initiatives usually require some social skills of individuals to promote change and influence colleagues and/or management (e.g., Gattiker & Carter, 2010).

Interestingly, eco-initiatives can occur at any organizational level, suggesting that all employees—from executives to workers on the floor—can offer innovative ideas and become eco-innovators. In fact, the concept of an “eco-initiative” was formally introduced by Ramus and Steger (2000) as “any action taken by an employee that she or he thought would improve the environmental performance of the company” (p. 606). According to Ramus and colleagues (Ramus, 2001; Ramus & Killmer, 2007; Ramus & Steger, 2000), eco-initiatives are a proxy for eco-innovation that contribute to corporate greening in three main ways; that is, by decreasing the environmental impact of the company, by solving environmental problems, and by creating more eco-efficient products or services. In this respect, eco-initiatives have generally been viewed as one of the success factors underlying various goals, such as pollution prevention, industrial ecology, waste reduction, and the protection of biodiversity.

A great number of organizations have begun to implement such environmental policies, objectives, and programs (Christmann & Taylor, 2006), thereby contributing to the promotion of task-performance behavior related to environmental concerns. For example, the principle of “we say what we do, we do what we say” at the heart of the ISO 14000 certification process is assumed to reinforce environmental procedures and to turn voluntary initiatives into behavior that is required by the organization or the job duties. However, although eco-initiatives can, to some extent, be subsumed within formal programs and processes, environmental policies are not necessarily well integrated in organizations and employees may only pay lip service to the standards in force (Yin & Schmeidler, 2009). Therefore, an important organizational challenge is to get employees to carry out discretionary eco-initiatives as a means to compensate for the inherent limitations, or lack, of formal environmental policies and procedures. The important question is how can such behaviors be obtained? In this regard, the next section considers how social exchanges in the workplace may promote employee eco-initiatives.

4.3.2 A social exchange view on eco-initiatives in the workplace

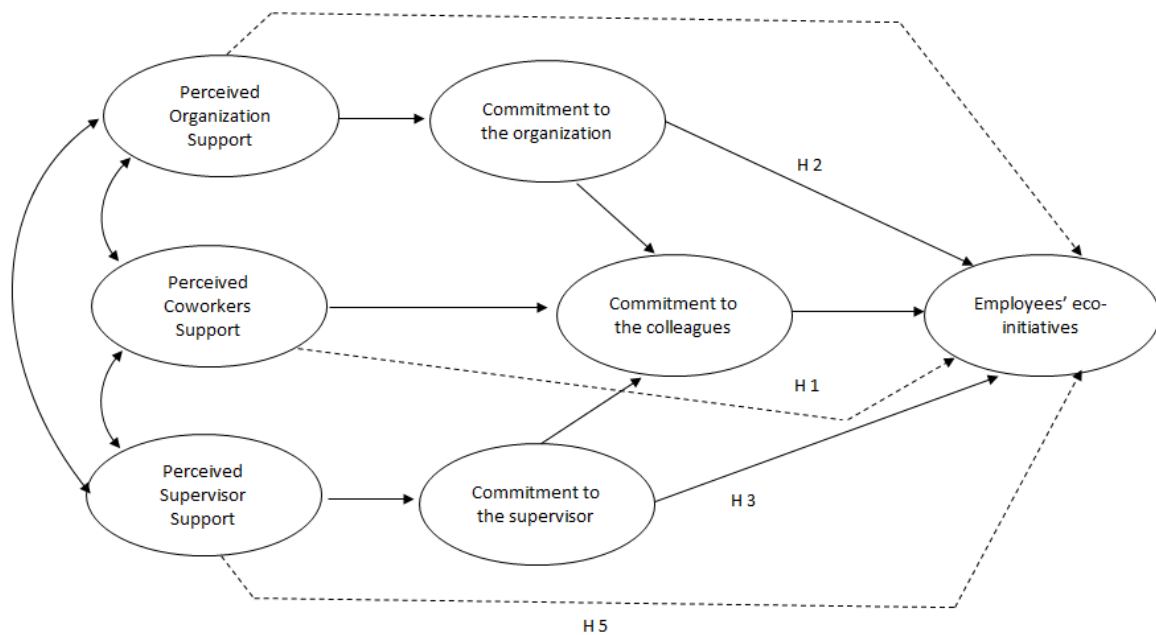
Eco-initiatives are clearly desirable work outcomes that contribute to corporate greening (Ramus & Killmer, 2007). However, organizations are often dependent on the goodwill of employees to “do the right thing” for the environment by engaging in voluntary, innovative, and spontaneous behaviors that begin at the individual level and gradually accumulate (e.g., Lülfs & Hahn, 2014). Research on environmental sustainability has addressed only a few aspects that refer to a social exchange framework, such as support. Stern (2000) has argued that social and community support may have an influence on individuals by strengthening their willingness to perform pro-environmental behaviors. Social support is an important input for initiating social exchange among individuals (Blau, 1964) and refers to the positive nature and function of social relationships (e.g., Hombrados-Mendieta, Garcia-Martin, & Gomez-Jacinto, 2013). Blau (1964) posited that social approval and intrinsic attraction are the two key mechanisms that contribute to create the individual’s belief that he or she is supported by his or her social environment. First, people need the approbation of others to justify their decisions and actions. Second, the mutual attractiveness of social

actors (i.e., a person or entity) will be greater if they share the same opinions, values, or norms. To some extent, the environmental literature has regarded the question of approbation from others by focusing on the role of norms on the individual's decision to adopt a specific pro-environmental behavior (e.g., reuse) if it is perceived as common among individuals (e.g., Steg & Vlek, 2009).

Following Blau's contention, it can be argued that employees may feel supported when they receive approbation in the form of encouragement from those with whom they share common values in terms of environmental protection. Depending on the type of job that they hold, employees may interact with multiple sources (Lavelle et al., 2007). While some of these source are located outside of the organization (e.g., clients), others are internal. Individuals can receive support from their peers, their supervisor, or the company itself. Schaninger and Turnipseed (2005) and, more recently, Lavelle, MacMahan, and Harris (2009), have reported that even though these three forms of support are correlated, they are distinct. Finally, it has been evidenced that when individuals feel supported by their peers, their supervisor, or their employer (i.e., the organization), they become, in turn, more committed to the colleagues (e.g., Bishop, Scott, & Burroughs, 2000), the supervisor (e.g., Stinglhamber & Vandenberghe, 2003), and the organization (e.g., Rhoades & Eisenberger, 2002), respectively. That is, the relation between support and commitment forms the core of social exchange relationships (Cropanzano & Mitchell, 2005).

Our research model depicted in Figure 1 proposes that high-quality relationships with the organization, the supervisor, and colleagues, when treated in terms of support-commitment relationships, influence employee willingness to engage in eco-initiatives in the workplace.

Figure 1: Hypothesized structural model



Note. All relationships in the model are hypothesized to be positive. Dashed arrow is used to depict direct relationships; solid arrows represent indirect relationships.

4.4 Research hypotheses

In the context of environmental management, research has shown that sharing tacit knowledge, providing advice and feedback, and offering practical assistance among peers involved in a given industrial process all play an important role in achieving environmental sustainability (e.g., Boiral, 2002; DeJonghe, Doctori-Blass, & Ramus, 2009). In a study of tacit knowledge in the context of environmental management, Boiral (2002) reported that “new employees can benefit more quickly from the experience accumulated by other employees than by referring to formal documentation” (p. 309). In this study, experienced employees provided support to new employees by providing helpful information about protecting the environment. By exchanging knowledge, reciprocal relationships of trust are established, promoting attachment to the colleagues and effective work behaviors that

chiefly rely on discretionary initiatives (e.g., Tharaldsen, Mearns, & Knudsen, 2010). Another example of the supportive role of colleagues can be found in a more recent empirical study by DeJonghe et al. (2009), which aimed to identify the factors that explain employee motivation to promote eco-initiatives. They found, among other things, that by engaging in eco-initiatives, employees seek the approval of other people in the workplace, particularly their peers. In doing so, employees are motivated by the recognition received from people with whom they identify. These findings provide a good illustration of how social support occurs among co-workers in the context of environmental concerns, since approval and recognition are acknowledged as important dimensions of support (Blau, 1964; Rhoades & Eisenberger, 2002).

Research suggests that the perception of being supported by co-workers increases the commitment to one's colleagues which, in turn, influences work-related outcomes, including job performance, group cohesion (e.g., Howes, Cropanzano, Grandey, & Mohler, 2000) and, especially relevant for our purpose, voluntary behaviors that are geared toward the natural environment (Norton, Zacher, & Ashkanasy, 2014). In addition, when co-workers help and support each other, and experience a high-quality relationship with their colleagues, they are more likely to find intrinsic benefits from their daily work activities and willingly engage in behaviors that go beyond the strict job description (e.g., Pearce & Herbik, 2004). Drawing on this previous literature and, given that taking eco-initiatives refers explicitly to extra-role behaviors (Ramus & Killmer, 2007), it is reasonable to expect a positive relationship between perceived social support among co-workers and a commitment to the colleagues that, in turn, contributes to employee eco-initiatives. Therefore, we hypothesize the following:

Hypothesis 1: Commitment to colleagues will mediate the positive relationship between perceived co-worker support and employee eco-initiatives.

Organizational support is a significant facilitator that leads employees to contribute to environmental sustainability in their jobs (e.g., Cantor, Morrow, & Montabon, 2012; Lamm et al., 2013; Temminck et al., 2013). Perceived organizational support (POS) refers to an

employee's belief that his or her employer aims to foster a work environment that is conducive to the employee's wellbeing (Rhoades & Eisenberger, 2002). As such, POS reflects an important input for triggering the social exchange process in an organizational settings (Cropanzano & Mitchell, 2005). Research undertaken in the environmental sustainability context reported findings which indicate that a commitment to the organization mediates the relationship between POS and pro-environmental behaviors (Lamm et al., 2013; Paillé & Boiral, 2013; Temminck et al., 2013). Therefore, given these existing findings, we hypothesize the following:

Hypothesis 2: Commitment to the organization will mediate the positive relationship between perceived organizational support and employees' eco-initiatives.

The important role of immediate managers for achieving environmental sustainability is well established in the literature (e.g., Cantor et al., 2012; Lauber, Taylor, Decker, & Knuth, 2010; Robertson & Barling, 2013). Supervisory support refers to the degree to which employees perceive that their supervisors "value their contributions and care about their well-being" (Rhoades & Eisenberger, 2002, p. 700). According to Ramus (2001), the immediate supervisor supports his or her subordinates by encouraging new ideas, sharing information, and rewarding efforts related to environmental issues. Receiving support from the supervisor contributes to pro-environmental behaviors (e.g., Hanna et al., 2000). In so doing, supportive managers can promote employee empowerment in the area of environmental sustainability (Daily, Bishop, & Steiner, 2007), and encourage employees to be eco-innovators (Ramus & Steger, 2000). The social exchange literature reports findings which show that, first, employees who experience positive exchanges with their supervisor in terms of support become affectively attached to him/her (e.g., Stinglhamber & Vandenberghe, 2003). Second, these findings indicate that the more employees are attached to their supervisor, the more likely they are to engage in prosocial behaviors by making an extra effort on the job (Lavelle et al., 2009). However, to the best of our knowledge, no research has determined the extent to which commitment to the supervisor mediates the relationship between supervisor support and employee eco-initiatives. This mediating process can reasonably be inferred, since eco-initiatives have been described as a form of

prosocial extra-role behaviors (Ramus & Killmer, 2007). Therefore, we hypothesize the following:

Hypothesis 3: Commitment to the supervisor will mediate the positive relationship between perceived supervisor support and employee eco-initiatives.

Until now, we have separately hypothesized exchange relationships between the employee and the organization, the supervisor, and the colleagues. However, these three forms of social exchange do not exist in isolation in the workplace. Individuals in organizations are often involved, to different degrees, in several vertical and lateral exchange relationships that are interrelated or nested within each other (Cole et al., 2002). Therefore, we need to consider how these three social exchange processes may best influence an employee's willingness to perform voluntary eco-initiatives.

From an individual perspective the organization and the supervisor, who acts as its representative, are generally seen as more distant than the co-workers (Lawler, Thye, & Yoon, 2009). It is relatively common for employees to construe their work group as a surrogate for the whole organization (Cole et al., 2002). Being the unit most directly experienced by employees, the work group has a "social interaction advantage" (Lawler et al., 2009, p. 70) and is more critical in providing behavioral direction in the workplace, even in the presence of other influences (Chiaburu & Harrison, 2008; Norton et al., 2014). Because proximity and group membership gives a sense of control over the work environment that directly affects employee outcomes (Tharaldsen et al., 2010).

On these premises, we suggest that a commitment to the colleagues is a proximal determinant of eco-initiatives, and that commitments to the organization and the supervisor are distal antecedents. This proposition is consistent with previous research on employee commitment that used the field theoretical approach developed by Lewin (1943). Field theory suggests "that elements in one's psychological environment are interrelated such that the influences of more distal factors will be mediated, at least in part, by their influence on more proximal factors" (Mathieu & Hamel, 1989, pp. 300-301). For example, in a recent

meta-analysis, Chiaburu and Harrison (2008) support the idea that work outcomes are more directly related to employees' attributional process regarding their colleagues, who share the same condition of subordination, than to the organization or supervisors. Similarly, Schaninger and Turnipseed (2005) found that personal initiatives at work are influenced, to a greater extent, by a high-quality relationship with co-workers, with whom they necessarily have more interactions. Remarkably, Bentein, Stinglhamber, and Vandenberghe (2002) also provide grounds to the notion of psychological proximity by showing that workplace commitment to the most proximal entity (i.e., the work group) mediates the effect of commitment to more distal foci (i.e., the organization and the supervisor) on employee extra-role behaviors.

To summarize, prior research reports positive relationships between perceived organizational support and commitment to the organization (e.g., Temminck et al., 2013), perceived supervisory support and commitment to the supervisor (e.g., Stinglhamber & Vandenberghe, 2003), and perceived peers' support and commitment to colleagues (e.g., Bishop et al, 2000). In addition, previous research that draws on field theory also suggests that commitments to the organization and the supervisor are antecedents of commitment to the colleagues that, in turn, influences the innovative and spontaneous behaviors of employees (e.g., Bentein et al, 2002). Given these existing findings, it is reasonable to surmise that the same psychological mechanism influences employee eco-initiatives (Ramus & Killmer, 2007). Therefore, we hypothesize the following:

Hypothesis 4: Commitment to the organization and commitment to colleagues will mediate the positive relationship between perceived organizational support and employee eco-initiatives.

Hypothesis 5: Commitment to the supervisor and commitment to colleagues will mediate the positive relationship between perceived supervisor support and employee eco-initiatives.

4.5 Method

4.5.1 Participants

A survey that assured respondents of anonymity was sent to 1,500 alumni of a major Mexican university in order to test the research model. Data were gathered in November and December of 2012. In total, 535 questionnaires were returned, for a response rate of 35.7%. Of the 535 completed questionnaires, 86 were excluded, either due to incomplete data or because the respondent was not currently employed. The final sample included 449 people who hold clerical jobs in the service industry at the time of the study. A total of 236 respondents were men (52.5%) and 213 were women (47.5%). The participants' ages ranged between 21 and 62, for an average age of 32.5 years (SD = 6.8 years).

4.5.2 Measurement

Perceived support. In this study, we elected to follow the example of Eisenberger, Stinglhamber, Vandenberghe, Sucharski, and Rhoades (2002) for the measurement of POS by using a short, three-statement form of the Survey of Perceived Organizational Support developed by Eisenberger, Huntington, Hutchison, and Sowa (1986). According to Rhoades and Eisenberger (2002), the use of short forms of the POS scale is a common practice in the literature that does not appear to be problematic, as the original scale is unidimensional and has high internal reliability. Both facets of the definition of POS were represented: A valuation of employee contributions and regard for employee well-being (Cronbach's $\alpha = .89$). Perceived co-worker support was measured by using a four-item scale developed by Stinglhamber, de Cremer, and Mercken (2006) ($\alpha = .89$) and perceived supervisor support was measured by using a four-item scale developed by Kottke and Sharafinski (1988) ($\alpha = .91$).

Commitment. Commitment to one's organization, colleagues, and supervisor were measured by using the scales developed by Bentein et al. (2002). These scales were

comprised of three items that assess the extent to which respondents felt a sense of attachment to the organization ($\alpha = .91$), colleagues ($\alpha = .93$), and supervisor ($\alpha = .91$).

Eco-initiatives. Employees' voluntary behaviors and suggestions meant to improve environmental practices were measured by using a three-item eco-initiative scale developed by Boiral and Paillé (2012) ($\alpha = .78$).

Survey items appear in Appendix. Respondents were asked to rate their agreement with each statement on a 5-point Likert scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. Finally, we used gender and age as control variables because previous research suggests a potential effect with pro-environmental behaviors (see Klein, D'Mello, & Wiernik, 2012, for a literature review).

4.5.3 Data analysis

All statistical analyses were performed by using the AMOS 18 structural equation modeling (SEM) program based on the covariance matrix. SEM provides a strong statistical framework for simultaneously testing complex relationships by considering the structural model as a whole (Arbuckle, 2009). Because the data revealed multivariate non-normality (Mardia's normalized coefficients = 76.8), and because the hypotheses involved mediated relationships, we used the bias-corrected bootstrap method (Cheung & Lau, 2008). Bootstrapping is a nonparametric resampling procedure "that does not impose the assumption of normality of the sampling distribution," advocated for testing mediation (Preacher & Hayes, 2008, p. 880).

Mediations were tested by using 5,000 bootstrap resamples while employing the 95% bias-corrected confidence interval to deal with multivariate non-normality of the data (Cheung & Lau, 2008; Preacher & Hayes, 2008). Mediation is demonstrated when the 95% bias-corrected confidence interval of the indirect effect does not include zero.

Goodness of fit was established by using the comparative fit index (CFI), the non-normed fit index (NNFI), and the root mean square error of approximation (RMSEA). Concurrent values greater than .90 for both the CFI and NNFI and lower than .08 for the RMSEA are reflective of an acceptable fit to the data (Marsh, Hau, & Wen, 2004). The Akaike's information criterion (AIC) was also used to address the issue of parsimony in comparing models. Following Burnham and Anderson (2002), while a difference of AIC of less than 2 indicates similarity between models, a difference between 4 and 7 indicates that the model with the lowest AIC is superior and must be retained.

4.6 Results

4.6.1 Measurement model

Common method variance. In the present study, because the data were collected using self-report measures and because there were similarities in item wording, it was important to ensure that common method variance (CMV) did not account for the observed relationships among the constructs (Podsakoff, MacKenzie, & Podsakoff, 2012). To examine this issue, several tests were undertaken. First, the variance inflation factor (VIF) was calculated for predictive variables. The mean VIF was below 3.2 and the highest value was 4.8, which is below the 10.0 threshold at which problems are typically encountered (Hair, Black, Babin, & Anderson, 2010).

Second, we compared the goodness of fit of the measurement model with and without a common latent method factor under confirmatory factor analysis (CFA). This technique is frequently used in the literature (e.g., Boiral & Paillé, 2012) and allows for indiscriminate “control for all systematic sources of bias” (Podsakoff et al., 2012, p. 553). Following Podsakoff, MacKenzie, Lee, and Podsakoff (2003), this approach involves, firstly, the inclusion of a common factor (latent variable) in the measurement model, and secondly, that items load on their theoretical constructs as well as on an additional latent method factor (Marler, Fisher, & Ke, 2009). To conclude that the bias due to CMV does not influence the findings, the measurement model with a common factor should not yield a

substantially better fit than the measurement model. As can be seen in Table 1 (see baseline comparison for common method variance), the results indicate no improvement in fit indices following the addition of the common method factor ($\chi^2_{\text{diff}}(4) = 9.7, p > .05; \Delta\text{AIC} < 2$).

Further, partitioning of the variance between trait, method, and random error revealed that the method represented only a small portion of the total variance (13%) in comparison to trait (60%), thus suggesting that CMV was not a significant problem.

Table 1: Results of model comparisons

Models	χ^2	<i>df</i>	χ^2/df	CFI	NNFI	RMSEA	AIC	ΔAIC
Baseline comparison for common method variance								
Null model	9069.5***	276	32.86	—	—	—	—	—
Measurement model	801.7***	229	3.50	.93	.92	.06	943.7	—
Measurement model with common factor	792.0***	225	3.50	.93	.92	.06	942.0	1.7
Baseline comparison for competing models								
Research model	986.8***	221	4.06	.92	.91	.07	1100.7	—
Alternative model 1 (adds path linking commitments to organization, and to supervisor and eco-initiatives)	986.3***	241	4.09	.92	.91	.08	1105.3	4.6
Alternative model 2 (adds path linking POS, and PSS and eco-initiatives)	989.7***	239	4.12	.92	.90	.08	1107.9	7.2
Alternative model 3 (overall perceived support, overall employee commitment, and eco-initiatives)	2123.8***	231	9.19	.80	.78	.13	2213.9	1113

Note. *N* = 449 for all variables.

*** *p* < .001.

Confirmatory factor analysis. CFA was used to estimate the measurement model. The results reported in Table 1 indicate that the model fit the data well, $\chi^2 = 801.7, df = 229, p < .001; CFI = .93; NNFI = .92; RMSEA = .06$. Also, alternative models produced significant decrement in fit compared to the research model.

Table 2 reports means, standard deviations (SD), and pair-wise correlations. The results indicated no or negligible relationships for gender and age, as values are below .19 (Cohen, Cohen, West, & Aiken, 2003). It is worth noting that, despite the high correlations among the support variables, all correlations are below the .80 threshold at which multicollinearity problems may occur (Hair et al., 2010).

Table 2: Correlation matrix and psychometric properties

Variables	Mean	SD	1	2	3	4	5	6	7	8
1. Gender	—	—	—							
2. Age	32.5	6.8	.00	—						
3. Perceived organizational support	10.6	3.1	.07	.04	—					
4. Perceived supervisor support	15.9	4.2	.07	.03	.75**	—				
5. Perceived colleague support	15.1	3.9	.02	.00	.70**	.78**	—			
6. Commitment to the organization	11.8	3.9	.00	.17**	.67**	.67**	.63**	—		
7. Commitment to the supervisor	11.7	3.0	.00	.10**	.49**	.65**	.55**	.57**	—	
8. Commitment to colleagues	11.8	4.0	.00	.15**	.50**	.52**	.56**	.64**	.47**	—
9. Eco-initiatives	10.7	2.7	.01	.16**	.22**	.19**	.23**	.28**	.19**	.20**

Note. $N = 449$ for all variables.

** $p < .01$.

Table 3 shows shared variances, average variance extracted (AVE), and Jöreskog's ρ . Hair et al. (2010) recommended threshold values for AVE above .50. Fornell and Larcker (1981) recommended that Jöreskog's ρ should be above the .70 threshold. The AVE values ranged from .55 to .83, and Jöreskog's ρ ranged from .77 to .93, thus verifying the scales' convergent validity. Finally, following Fornell and Larcker (1981), discriminant validity is evidenced if, for two constructs, the average AVE is higher than their shared variance. Table 3 indicates that this rule of thumb was met for each pair of constructs. Consistent with prior findings (e.g., Lavelle et al., 2009), although the three forms of support are correlated in the present research, they are psychometrically distinct.

Table 3: Shared variance, average variance extracted, and Jöreskog' ρ

Variables	AVE	ρ	3	4	5	6	7	8
3. Perceived organizational support	.67	.89	—					
4. Perceived supervisor support	.74	.92	.56	—				
5. Perceived colleague support	.73	.91	.49	.60	—			
6. Commitment to the organization	.83	.93	.44	.44	.40	—		
7. Commitment to the supervisor	.57	.79	.24	.42	.32	.32	—	
8. Commitment to colleagues	.55	.77	.25	.27	.32	.40	.22	—
9. Eco-initiatives	.56	.79	.04	.04	.32	.07	.03	.04

Note. $N = 449$ for all variables. AVE, Average variance extracted; ρ , Jöreskog' ρ .

4.6.2 Hypotheses testing

Before testing the hypotheses, this section discusses SEM analyses of the model, as depicted in Figure 1. The results are reported in Table 1. The research model fit the data well, $\chi^2 = 983.0$, $df = 221$, $p < .000$; CFI = .92; NNFI = .91; RMSEA = .07; AIC = 1100.5. To avoid possible existing nested models that might yield a better fit, leading to the decision to reject the research model (James, Mulaik, & Brett, 2006), the latter was compared to three alternative models. In Alternative Model 1, paths linking commitment to the supervisor and eco-initiative, as well as commitment to the organization and eco-initiatives, have been added. In Alternative Model 2, paths linking perceived supervisor support and eco-initiative, in addition to perceived organizational support and eco-initiatives, have been added. Finally, in Alternative Model 3, paths link an overall perceived support (i.e., 2nd-order construct composed by the three forms of support), an overall employee commitment (i.e., 2nd-order construct composed by the three forms of commitment), and eco-initiatives. Based on a chi-square difference test and ΔAIC , the results in Table 1 (see baseline comparison for competing models) indicate that the research model was retained because it was more parsimonious (Burnham & Anderson, 2002).

Estimates for the total, direct and indirect effects, standard errors, and confidence intervals appear in Table 4. Hypothesis 1 predicted that commitment to the colleagues

mediates the positive relationship between perceived co-worker support and employee eco-initiatives. The standardized direct effect of perceived co-workers' support on eco-initiative behaviors was .02, with a p -value = .871. The standardized indirect effect of perceived co-worker support on employees' eco-initiatives through commitment to the colleagues was .07, with a p -value = .007. The 95% bias-corrected confidence interval for this indirect effect is between .03 (lower bound) and .20 (upper bound), and did not contain zero. These results lead to the conclusion that the relationship between perceived co-worker support and employee eco-initiatives was significantly mediated by commitment to the colleagues. The mediator accounted for 58.3% of the variance (indirect effect/total effect: .07/.12). Thus, Hypothesis 1 was supported.

Hypothesis 2, which predicted that commitment to the organization mediates the positive relationship between perceived organizational support and employee eco-initiatives, and Hypothesis 3, which predicted that commitment to the supervisor mediates the positive relationship between perceived supervisor support and employee eco-initiatives, were not supported by the data, as the 95% bias-corrected confidence interval of the indirect effect included zero.

Hypothesis 4 predicted that commitment to the organization and commitment to the colleagues both play a mediating role between perceived organizational support and employees' eco-initiatives. The mediation from POS to employees' eco-initiatives through commitment to the organization and commitment to the colleagues was significant ($.78 \times .56 \times .27 = .11$). The 95% bias-corrected confidence interval was between .02 (lower bound) and .16 (upper bound), and did not include zero. The mediators accounted for 84.6% of the variance (indirect effect/total effect: .11/.13). Thus, Hypothesis 4 was supported.

Hypothesis 5 predicted that commitment to the supervisor and commitment to the colleagues both play a mediating role between perceived supervisor support and employees' eco-initiatives. The mediation from PSS through to employee eco-initiatives through commitment to the supervisor and commitment to the colleagues was significant

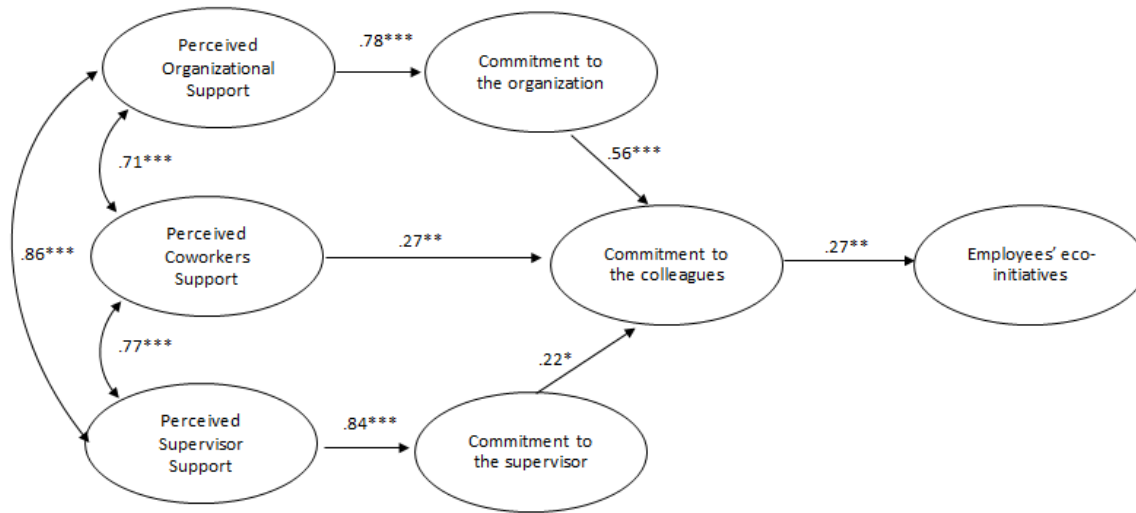
(.84 x .15 x .27 = .03). The 95% bias-corrected confidence interval was between .01 (lower bound) and .08 (upper bound), and did not contain zero. The mediator accounted for 27.2% of the variance (indirect effect/total effect: .03/.11). Thus, Hypothesis 5 was supported.

Table 4: Bootstrap analysis of the standardized total, direct and indirect effects

IV	Mediators	DV	β total effect	β direct effect	β indirect effect	Standard Error	95% CI Lower Upper	
Hypothesis 1								
PCS	→	CC		.27		.03	.11	.38
CC	→	ECOI		.27		.08	.08	.45
PCS	→	ECOI		.02		.11	-.18	.25
PCS	→ CC →	ECOI	.12	(.27 x .27)	.07	.03	.03	.20
Hypothesis 2								
POS	→	CO		.78		.06	.69	.83
CO	→	ECOI		.01		.07	-.26	.24
POS	→	ECOI		.20		.12	-.07	.49
POS	→ CO →	ECOI	.29	(.78 x .01)	.00	.14	-.08	.23
Hypothesis 3								
PSS	→	CS		.84		.02	.78	.88
CS	→	ECOI		-.10		.14	-.38	.17
PSS	→	ECOI		-.19		.14	-.46	.11
PSS	→ CS →	ECOI	-.14	(.84 x -.10)	-.08	.12	-.27	.19
Hypothesis 4								
CO	→	CC		.56		.06	.45	.69
POS	→ CO →	CC	.28	(.78 x .56)	.43	.05	.35	.55
POS	→ CO → CC →	ECOI	.13	(.78 x .56 x .27)	.11	.03	.02	.16
Hypothesis 5								
CS	→	CC		.15		.06	.02	.28
PSS	→ CS →	CC	.39	(.84 x .15)	.12	.08	.02	.36
PSS	→ CS → CC →	ECOI	.11	(.84 x .15 x .27)	.03	.01	.01	.08
PSS	→ CS → CC →	ECOI	.11	(.84 x .15 x .27)	.03	.01	.01	.08

Note. $N = 449$ for all variables. Standardized parameter estimates are presented. PCS, perceived coworkers support; POS, perceived organizational support; PSS, perceived supervisor support; CC, commitment to the colleagues; CO, commitment to the organization; CS, commitment to the supervisor; ECOI, eco-initiative.

Figure 2: Standardized path estimates of the research model



Note. Parameters for the measurement portion and disturbance terms are not presented for the sake of parsimony.
 * $p < .05$; ** $p < .01$; *** $p < .001$.

4.7 Discussion

4.7.1 Contribution of the study

This paper makes several important contributions to the environmental literature. An important finding was the key role played by commitment to the colleagues in the social exchange for the promotion of pro-environmental behaviors. Our findings add to previous research that has used field theory to examine interrelations between several foci of commitment to predict behavior at work. Consistent with field theory premises, we found that commitments to the supervisor and to the organization exerted indirect effects on eco-initiatives through commitment toward the colleagues. This means that while the organization and supervisor are more distal foci of commitment, the co-workers are a more proximal focus of commitment to predict the employee's willingness to perform eco-initiatives on the job.

Another notable contribution was about support received from the co-workers in the specific context of environmental sustainability. Whereas some theoretical articles and empirical research studies have indicated that eco-innovative behaviors may be performed by employees when they receive support from their supervisor or from their company (e.g., Cantor et al., 2012; Lamm et al., 2013; Paillé et al., 2013; Ramus & Killmer, 2007), no research reports findings about the effect of perceived co-worker support on the willingness to engage in pro-environmental behaviors. In the context of sustainability, for a given employee to be supported by co-workers reflects that his or her initiatives on the job are valued and recognized by peers as important actions toward the natural environment. In addition, while the topic of teamwork applied to green management is well documented (e.g., Daily et al., 2007; May & Flannery, 1995), our research may contribute to better understanding the underlying social processes implied by teamwork in the environmental sustainability context. Hanna et al. (2000) argued that “worker concern for the environment is often a factor in employee morale and can be highlighted by participation in team projects that have environmental goals” (p. 154). Since this proposition was stated, little work has been undertaken to provide findings in this way. By highlighting the role of co-workers, the present research contributes to filling this gap.

Our findings have interesting theoretical and practical implications. From a theoretical point of view, the present paper contributes to the emerging trend of research that uses social exchange as a framework for explaining employees’ willingness to perform pro-environmental behaviors in their job. The application of social exchange tenets in the specific topic of environmental sustainability has already provided interesting findings. Previous research reported that, when employees feel supported by their organization or supervisor, they are more prone to engage in environmentally friendly behaviors within their respective jobs. The present research is one of the first attempts to highlight the influence of high-quality relationships with co-workers on the decision to engage in green behaviors. By taking into account high-quality relationships with co-workers alongside those experienced with the organization and supervisor, the present paper adds findings that go beyond current knowledge. Moreover, the present research is the one of the first

applications that has tested a social exchange model for explaining employees' willingness to perform pro-environmental behaviors in an organizational setting.

From a practical perspective, the research offers useful results that may help organizations to become greener. Employees appear to be encouraged to take eco-initiatives on the job when high-quality relationships exist within a work group. The present research suggests that organizations should support the development of a sense of belonging to the work group among individual employees. An appropriate way may be to foster the perception of work group cohesiveness among co-workers (Vandenberghe et al., 2004). Although high-quality relationships among peers is an important input for developing and maintaining the employees' willingness to perform eco-initiatives, top management (as representatives of a company) and immediate managers should be aware that it is also important to give some form of support at their own level. In this way, support given by managers and organizations contribute to shaping the context through which high-quality relationships among peers can take place. Therefore, the employer should build a social context that facilitates sustainability (Russell & McIntosh, 2011).

4.7.2 Limitations and future research

Despite these contributions, some limitations should be pointed out. These limits would merit consideration in future research. First, the present research was designed to advance knowledge on the usefulness of social exchange for promoting pro-environmental behavior on the job (i.e., individual eco-initiative), and the focus has been on the effect of the relationship between support and commitment for three salient foci (i.e., organization, supervisor, and co-workers). Thus, determinants of these foci have been precluded. In order to complete the research model, future investigations might examine the impact of environmental management practices (e.g., making employees more responsible for the environmental performance) or human management practices (e.g., employee training) as possible determinants that contribute to fostering the structuration of the three social exchanges. Second, in accordance with Cropanzano and Mitchell (2005), we particularly stressed the relationship between support and commitment for the examination of social

exchanges. By making this choice, we have explained only a part of the reciprocal nature implied in exchange processes. Further variables typically associated with the social exchange literature, such as trust (Lavelle et al., 2007; Serva et al., 2005), may be helpful to better understand the underlying process of reciprocity in the context of environmental sustainability. Third, given the weakness of the indirect effect of perceived coworkers' support on employee eco-initiatives through commitment to the colleagues, this effect should be interpreted with caution, as these findings might not be extrapolated to other contexts. Replication may help to ensure generalization of this relationship. Fourth, the focus has been put on individual eco-initiatives on the job, a particular pro-environmental behavior. Given this choice, we recognize that the results might not extend to other pro-environmental behaviors. Thus, future investigations may extend our model research by adding recycling or reusing alongside other eco-initiatives.

Fifth, Lo, Peter, and Kok, (2012) have indicated that the evidence of the possible effect of some organizational features, such as size or structure, on employees' pro-environmental behaviors is rather inconclusive. We recognize that we have not controlled for these possible effects. However, the social exchange literature gives only some interesting cues for organizational size. While Rhoades and Eisenberger (2002) reported a negative relationship between organizational size and POS, Mathieu and Zajac (1990) found no relationship with commitment to the organization. Based on these findings, it can be assumed that, in the social exchange context, organizational size does not greatly affect employees' pro-environmental behaviors. Future research could test the extent to which organizational size and other macro-level features, such as industry, may or may not affect the employees' willingness to perform eco-initiatives. Finally, it is important to recognize that the data were collected by using a cross-sectional design. Although a number of methodological precautions were taken in the present research, indicating that the effects of common variance bias did not disrupt the validity of the research model, future research could use a longitudinal research design to verify the stability of the observed mediation effects over time.

In conclusion, this study contributes to the literature by showing that pro-environmental behavior was best predicted by relationships with co-workers, whereas relationships with both supervisor and organization played an indirect role. Future research is now needed to replicate and extend this finding.

Appendix – Article 3

Perceived Organizational Support Items (Eisenberger et al., 2002)

1. My company values my contributions.
2. My company considers my aspirations and values.
3. My company really cares about my well-being.

Perceived Colleague Support Items (Stinglhamber et al., 2006)

1. My colleagues appreciate my contribution.
2. My colleagues consider my opinions and values.
3. Help is available from my colleagues when I have a problem.
4. My colleagues really care about my well-being.

Perceived Supervisor Support Items (Kottke & Sharafinski, 1988)

1. My supervisor values my contributions.
2. My supervisor considers my opinions and values.
3. Help is available from my supervisor when I have a problem.
4. My supervisor is concerned about my welfare at work.

Affective Commitment to the Organization Items (Bentein et al., 2002)

1. I really feel that I belong in this company.
2. This company has a great deal of personal meaning for me.
3. I am proud to belong to this company.

Affective Commitment to the Colleagues Items (Bentein et al., 2002)

1. I really feel a part of this work group.
2. I am proud to be a member of this work group.
3. My work group means a lot to me personally.

Affective Commitment to the Supervisor Items (Bentein et al., 2002)

1. I feel respect for my supervisor.
2. I personally appreciate my supervisor.
3. I am proud to work for my supervisor.

Eco-Initiatives Items (Boiral & Paillé, 2012)

1. In my work, I weigh the consequences of my actions before doing something that could affect the environment.
2. I voluntarily carry out environmental actions and initiatives in my daily work activities.
3. I make suggestions about ways to protect the environment more effectively, even when it is not my direct responsibility.

References – Article 3

- Andersson, L. M., & Bateman, T. S. (2000). Individual environmental initiative: Championing natural environmental issues in US business organizations. *Academy of Management Journal*, 43(4), 548-570.
- Andersson, L. M., Shivarajan, S., & Blau, G. (2005). Enacting ecological sustainability in the MNC: A test of an adapted value-belief-norm framework. *Journal of Business Ethics*, 59(3), 295-305.
- Arbuckle, J. L. (2009). *Amos 18 user's guide*. Chicago, IL: SPSS Inc.
- Bentein, K., Stinglhamber, F., & Vandenberghe, C. (2002). Organization-, supervisor-, and workgroup-directed commitments and citizenship behaviours: A comparison of models. *European Journal of Work and Organizational Psychology*, 11(3), 341-362.
- Bingham, J. B., Mitchell, B. W., Bishop, D. G., & Allen, N. J. (2013). Working for a higher purpose: A theoretical framework for commitment to organization-sponsored causes. *Human Resource Management Review*, 23(2), 174-189.
- Bissing-Olson, M. J., Iyer, A., Fielding, K. S., & Zacher, H. (2013). Relationships between daily affect and pro-environmental behavior at work: The moderating role of pro-environmental attitude. *Journal of Organizational Behavior*, 34(2), 156-175.
- Blau, P. M. (1964). *Exchange and power in social life*. New York, NY: Wiley.
- Boiral, O. (2002). Tacit knowledge and environmental management. *Long Range Planning*, 35(3), 291-317.
- Boiral, O. (2005). The impact of operator involvement in pollution reduction: Case studies in Canadian chemical companies. *Business Strategy and the Environment*, 14(6), 339-360.
- Boiral, O., & Paillé, P. (2012). Organizational citizenship behaviour for the environment: Measurement and validation. *Journal of Business Ethics*, 109(4), 431-445.
- Burnham, K., & Anderson, D. (2002). *Model selection and multimodel inference: A practical information theoretic approach* (2nd ed.). New York, NY: Springer.
- Cantor, D. E., Morrow, P. C., & Montabon, F. (2012). Engagement in environmental behaviors among supply chain management employees: An organizational support theoretical perspective. *Journal of Supply Chain Management*, 48(3), 33-51.
- Cheung, G. W., & Lau, R. S. (2008). Testing mediation and suppression effects of latent variables: Bootstrapping with structural equation models. *Organizational Research Methods*, 11(2), 296-325.

- Chiaburu, D. S., & Harrison, D. A. (2008). Do peers make the place? Conceptual synthesis and meta-analysis of coworker effects on perceptions, attitudes, OCBs, and performance. *Journal of Applied Psychology, 93*(5), 1082-1103.
- Christmann, P., & Taylor, G. (2006). Firm self-regulation through international certifiable standards: Determinants of symbolic versus substantive implementation. *Journal of International Business Studies, 37*(6), 863-878.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Mahwah, NJ: Erlbaum.
- Cole, M. S., Schaninger, W. S., & Harris, S. G. (2002). The workplace social exchange network a multilevel, conceptual examination. *Group & Organization Management, 27*(1), 142-167.
- Cordano, M., & Frieze, I. H. (2000). Pollution reduction preferences of US environmental managers: Applying Ajzen's theory of planned behavior. *Academy of Management Journal, 43*(4), 627-641.
- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management, 31*(6), 874-900.
- Daily, B. F., Bishop, J. W., & Steiner, R. (2007). The mediating role of EMS teamwork as it pertains to HR factors and perceived environmental performance. *Journal of Applied Business Research, 23*(1), 95-109.
- DeJonghe, N., Doctori-Blass, V., & Ramus, C. A. (2009). Employee eco-initiatives: Case studies of two eco-entrepreneurial companies. *Advances in the Study of Entrepreneurship, Innovation & Economic Growth, 20*, 79-125.
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology, 71*(3), 500-507.
- Eisenberger, R., Stinglhamber, F., Vandenberghe, C., Sucharski, I. L., & Rhoades, L. (2002). Perceived supervisor support: Contributions to perceived organizational support and employee retention. *Journal of Applied Psychology, 87*(3), 565-573.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equations models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39-50.
- Gattiker, T. F., & Carter, C. R. (2010). Understanding project champions' ability to gain intra-organizational commitment for environmental projects. *Journal of Operations Management, 28*(1), 72-85.
- Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American Sociological Review, 25*(2), 161-178.

- Hair, J. F., Jr., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Upper Saddle River, NJ: Prentice Hall.
- Hanna, M. D., Newman, W. R., & Johnson, P. (2000). Linking operational and environmental improvement through employee involvement. *International Journal of Operations & Production Management*, 20(2), 148-165.
- Hart, S. L. (1995). A natural-resource-based view of the firm. *Academy of Management Review*, 20(4), 986-1014.
- Hombrados-Mendieta, I., Garcia-Martin, M. A., & Gomez-Jacinto, L. (2013). The relationship between social support, loneliness, and subjective well-being in a Spanish sample from a multidimensional perspective. *Social Indicator Research*, 114(3), 1013-1034.
- Hörisch, J., Freeman, R. E., & Schaltegger, S. (2014). Applying stakeholder theory in sustainability management: links, similarities, dissimilarities, and a conceptual framework. *Organization & Environment*. (In press).
- Howes, J. C., Cropanzano, R., Grandey, A. A., & Mohler, C. J. (2000). Who is supporting whom? Quality team effectiveness and perceived organizational support. *Journal of Quality Management*, 5(2), 207-223.
- James, L. R., Mulaik, S. A. & Brett, J. M. (2006). A tale of two methods. *Organizational Research Methods*, 9(2), 233-244.
- Klein, R. M., D'Mello, S., & Wiernik, B. M. (2012). Demographic characteristics and employee sustainability. In S. E. Jackson, D. S. Ones, & S. Dilchert (eds.), *Managing human resources for environmental sustainability* (pp. 85-116). San Francisco, CA: Jossey-Bass.
- Kottke, J. L., Sharafinski, C. E. (1988). Measuring perceived supervisory and organizational support. *Educational and Psychological Measurement*, 48(4), 1075-1079.
- Lamm, E., Tosti-Kharas, J., & Williams, E. G. (2013). Read this article, but don't print it: Organizational citizenship behavior toward the environment. *Group & Organization Management*, 38(2), 163-197.
- Lauber, T. B., Taylor, E. J., Decker, D. J., & Knuth, B. A. (2010). Challenges of professional development: Balancing the demands of employers and professions in federal natural resource agencies. *Organization & Environment*, 23(4), 446-464.
- Lavelle, J., Rupp, D., & Brockner, J. (2007). Taking a multifoci approach to the study of justice, commitment, and organizational citizenship behavior: The target similarity model. *Journal of Management*, 33(6), 841-866.

- Lawler, E. J., Thye, S. R., & Yoon, J. (2009). *Social commitments in a depersonalized world*. New York, NY: Russell Sage Foundation.
- Lewin, K. (1943). Defining the field at a given time. *Psychological Review*, *50*(3), 292-310.
- Lülf, R., & Hahn, R. (2014). Sustainable behavior in the business sphere—A comprehensive overview of the explanatory power of psychological models. *Organization & Environment*, *27*(1), 43-64.
- Marsh, H. W., Hau, K. T., & Wen, Z. (2004). In search of golden rules: Comment on hypothesis testing approaches to setting cutoff values for fit indexes and dangers in overgeneralizing Hu & Bentler's (1999) findings. *Structural Equation Modeling*, *11*(3), 320-341.
- Mathieu, J. E., & Hamel, K. (1989). A causal model of the antecedents of organizational commitment among professionals and nonprofessionals. *Journal of Vocational Behavior*, *34*(3), 299-317.
- Mathieu, J. E., & Zajac, D. M. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological Bulletin*, *108*(2), 171-194.
- May, D. R., & Flannery, B. L. (1995). Cutting waste with employee involvement teams. *Business Horizons*, *38*(5), 28-38.
- Montiel, I. (2008). Corporate social responsibility and corporate sustainability: Separate pasts, common futures. *Organization & Environment*, *21*(3), 245-269.
- Norton, T. A., Zacher, H., & Ashkanasy, N. M. (2014). Organisational sustainability policies and employee green behaviour: The mediating role of work climate perceptions. *Journal of Environmental Psychology*, *38*, 49-54.
- Ones, D. S., & Dilchert, S. (2012). Employee green behaviors. In S. E. Jackson, D. S. Ones, & S. Dilchert (eds.), *Managing human resources for environmental sustainability* (pp. 85-116). San Francisco, CA: Jossey-Bass.
- Paillé, P., & Boiral O. (2013). Pro-environmental behavior at work: Construct validity and determinants. *Journal of Environmental Psychology*, *36*, 118-128.
- Paillé, P., Boiral, O., & Chen, Y. (2013). Linking environmental management practices and organizational citizenship behaviour for the environment: A social exchange perspective. *The International Journal of Human Resource Management*, *24*(18), 3552-3575.
- Pearce, C. G., & Herbik, P. A. (2004). Citizenship behavior at the team level of analysis: The effects of team leadership, team commitment, perceived team support, and team size. *Journal of Social Psychology*, *144*(3), 293-310.

- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879-903.
- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology, 63*, 539-569.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior research methods, 40*(3), 879-891.
- Ramus, C. A. (2001). Organizational support for employees: encouraging creative ideas for environmental sustainability. *California Management Review, 43*(3), 85-105.
- Ramus, C. A., & Killmer, A. B. C. (2007). Corporate greening through prosocial extrarole behaviours—A conceptual framework for employee motivation. *Business Strategy and the Environment, 16*(8), 554-570.
- Ramus, C. A., & Steger, U. (2000). The roles of supervisory support behaviors and environmental policy in employee “ecoinitiatives” at leading-edge European companies. *Academy of Management Journal, 43*(4), 605-626.
- Renwick, D., Redman, T., & Maguire, S. (2013). Green human resource management: A review and research agenda. *International Journal of Management Reviews, 15*(1), 1-14.
- Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology, 87*(4), 698-714.
- Riggle, R. J., Edmondson, D. R., & Hansen, J. D. (2009). A meta-analysis of the relationship between perceived organizational support and job outcomes: 20 years of research. *Journal of Business Research, 62*(10), 1027-1030.
- Robertson, J. L., & Barling, J. (2013). Greening organizations through leaders’ influence on employees’ pro-environmental behaviors. *Journal of Organizational Behavior, 34*(2), 176-194.
- Russell, S. V., & McIntosh, M. (2011). Organizational change for sustainability. In N. M. Ashkanasy, C. P. M. Wilderom & M. F. Peterson (Eds.), *Handbook of organizational culture and climate* (2nd ed.). Thousand Oaks, CA: Sage.
- Schaninger, W. S., & Turnipseed, D. L. (2005). The workplace social exchange network: Its effect on organizational citizenship behavior, contextual performance, job satisfaction, and intention to leave. In D. L. Turnipseed (Ed.), *Handbook of organizational citizenship behavior: A review of ‘good soldier’ activity in organizations* (pp. 209-242). New York, NY: Nova Science.

- Starik, M. & Kanashiro, P. (2013). Toward a theory of sustainability management: Uncovering and integrating the nearly obvious. *Organization & Environment*, 26(1), 7-30
- Steg, L. & Vlek, C. (2009). Encouraging pro-environmental behaviour: An integrative review and research agenda. *Journal of Environmental Psychology*, 29, 309-317.
- Stern, P. C. (2000). Psychology and the science of human-environment interactions. *American psychologist*, 55(5), 523-530.
- Stinglhamber, F., de Cremer, D., & Mercken, L. (2006). Perceived support as a mediator of the relationship between justice and trust. *Group & Organization Management*, 31(4), 442-468.
- Stinglhamber, F., & Vandenberghe, C. (2003). Organizations and supervisors as sources of support and targets of commitment: A longitudinal study. *Journal of Organizational Behavior*, 24(3), 251-270.
- Temminck, E. V., Mearns, K. J., & Fruhen, L. S. (2013). Motivating employees towards sustainable behaviour. *Business Strategy and the Environment*. (In press).
- Tudor, T. L., Barr, S. W., & Gilg, A. W. (2008). A novel conceptual framework for examining environmental behavior in large organizations: A case study of the Cornwall National Health Service (NHS) in the United Kingdom. *Environment and Behavior*, 40(3), 426-450.
- Tharaldsen, J. E., Mearns, K. J., & Knudsen, K. (2010). Perspectives on safety: The impact of group membership, work factors and trust on safety performance in UK and Norwegian drilling company employees. *Safety Science*, 48(8), 1062-1072.
- Yin, H., & Schmeidler, P. J. (2009). Why do standardized ISO 14001 environmental management systems lead to heterogeneous environmental outcomes? *Business Strategy and the Environment*, 18(7), 469-486.

Conclusion

L'objectif des trois articles formant chacun un chapitre de cette thèse était de tester l'étendue du champ d'application de la théorie de l'échange social, en la confrontant à deux domaines de recherche contemporains dans lesquels ses préceptes étaient (et demeurent encore aujourd'hui) relativement inexploités dans l'étude des relations au travail. Le premier domaine, dont le premier article fait l'objet, est celui des études sur les différences intergénérationnelles. Le but de l'article était d'examiner, dans une optique de gestion des ressources humaines, s'il existe un déclin générationnel des échanges sociaux au travail en termes d'engagement des employés et de comportements de citoyenneté organisationnelle. Le deuxième domaine, dont les deux derniers articles font l'objet, est celui des études sur l'écologisation des entreprises. Les articles exploraient dans quelle mesure les échanges sociaux au travail sont susceptibles d'influencer les comportements d'éco-citoyenneté organisationnelle des employés, et ultimement contribuer à la performance environnementale des organisations.

La théorie de l'échange social est un paradigme conceptuel éprouvé et influent dans l'étude des conduites individuelles et collectives en milieu de travail (Coyle-Shapiro & Conway, 2004; Cropanzano & Mitchell, 2005). La théorie offre un cadre unitaire et intégratif pour analyser les relations de mutualité entre acteurs sociaux, et possède un fort caractère prédictif dont le fondement repose sur la réciprocité interindividuelle et intercollective. L'échange social et le principe de réciprocité ont l'avantage d'expliquer les attitudes et comportements des employés de façon parcimonieuse, et selon une approche peu autoritaire sur le plan managérial. En effet, la théorie s'intéresse principalement aux actions volontaires et discrétionnaires nourrissant des relations d'échanges informelles et intrinsèques basées sur la confiance. Le principe de réciprocité peut être associé à quatre grands types analytiques de rationalité : instrumental (e.g., Emerson, 1962; Homans, 1958), affectif (e.g., Lawler & Thye, 1999; Thibault & Kelley, 1959), normatif (e.g., Blau, 1964; Gouldner, 1960), et idéologique (e.g., Hart & Thompson, 2007; Thompson & Bunderson, 2003). Bien que dans les faits, un acte de réciprocité soit souvent multi-déterminé, les

articles de cette thèse font principalement appel à l'approche normative, dont les préceptes sont les plus influents dans la littérature en comportement organisationnel.

L'approche normative repose fondamentalement sur une norme de réciprocité considérée comme universelle et omniprésente dans les relations sociales, et motivée par un sentiment d'obligation morale (Gouldner, 1960). Mais plus une théorie est influente et intégratrice, plus elle a tendance à faire l'objet de critiques. Ce faisant, le premier article de la thèse entendait examiner la revendication selon laquelle il existe un déclin générationnel des échanges sociaux au travail (Putnam, 2000), censé créer un véritable défi sur le plan de la gestion des ressources humaines (e.g., Atkinson, 2002; de Meuse, Bergmann, & Lester, 2001). Plus particulièrement, l'article explorait comment l'appartenance à un groupe générationnel, celui des baby-boomers versus celui de la génération X (ces deux cohortes étant les plus représentées de nos jours dans le monde du travail), influence les relations entre le soutien perçu de l'organisation et des collègues, l'engagement envers l'organisation et les collègues, et les comportements de citoyenneté organisationnelle. Les résultats de notre étude indiquent que les relations d'échange social avec l'organisation influencent uniquement les comportements de citoyenneté organisationnelle des baby-boomers, et non ceux des membres de la génération X, alors que les relations d'échange social avec les collègues influencent les comportements des deux cohortes de façon significativement comparable sur le plan statistique.

L'article 1 apporte plusieurs contributions à la littérature. Tout d'abord, celui-ci examine un domaine de recherche peu étudié, présentant des résultats contradictoires et fondés sur des méthodes peu robustes (comparaisons statistiques de moyennes et comparaisons non statistiques de régressions simples). Deuxièmement, l'article prend en compte les relations proximales entretenues entre un employé et son groupe de travail, là où les études existantes se concentrent généralement sur la relation employé-employeur, omettant de différencier les cibles d'échange social (pour une exception, voir Benson & Brown, 2011). Comme nous le théorisons dans l'article, l'analyse simultanée des relations d'échange avec l'organisation et les collègues s'avère utile eu égard aux caractéristiques idealtypiques des baby-boomers et de la génération X. De ce point de vue, les résultats indiquent que les

membres de la génération X semblent moins disposés que les baby-boomers à échanger des attitudes et comportements positifs en retour du soutien de leur employeur. Fait intéressant, la troisième et principale contribution de l'article est de montrer qu'il existe néanmoins davantage d'affinités que de différences entre les deux cohortes. En effet, il ne semble pas y avoir de déclin générationnel absolu des relations d'échange social au travail, mais certains freins à la réciprocité chez les membres de la génération X, sur lesquels une organisation peut agir à travers sa politique de gestion des ressources humaines. Il est notamment conseillé de développer le sentiment de confiance envers l'organisation, en mettant en œuvre des plans de carrière transparents en termes de compétences et d'expérience requises, en offrant des formations et autres possibilités de développement professionnel favorisant la mobilité verticale et horizontale, ou en récompensant les réalisations individuelles et collectives, par exemple (pour un récapitulatif du contenu de chaque article de la thèse, voir Tableau 1 ci-dessous donnant une vue d'ensemble des objectifs poursuivis, de la méthodologie utilisée et des contributions principales).

Le deuxième domaine de recherche étudié dans la thèse était celui des études comportementales et managériales relatives à l'écologisation des entreprises. L'article 2 analysait l'interaction de facteurs individuel, organisationnel et managérial, sur l'engagement environnemental et les comportements d'éco-citoyenneté organisationnelle des employés. Il met en relation des concepts de la théorie de l'échange social (soutien perçu, engagement, comportement citoyens) adaptés et opérationnalisés au domaine environnemental (Boiral & Paillé, 2012; Daily, Bishop, & Govindarajulu, 2009; Ramus, 2001; Ramus & Steger, 2000). Pour sa part, l'article 3 examinait une dimension particulière des comportements d'éco-citoyenneté organisationnelle, appelée éco-initiatives, à partir d'échanges sociaux multiples entre l'employé et (1) l'organisation, (2) le superviseur, et (3) les collègues. Tandis que l'article 2 explorait dans quelle mesure un échange de type axiologique ou idéologique influence l'attitude et les comportements environnementaux des employés en fonction de leurs croyances environnementales personnelles, l'article 3 s'intéressait au rôle proximal joué par les relations d'échange avec les collègues, au sein des échanges sociaux multiples au travail. Tout comme l'article 1, les articles 2 et 3 sont novateurs et fournissent des résultats uniques contribuant distinctement à la littérature.

Tableau 1: Récapitulatif et vue d'ensemble des articles de la thèse

	Article 1	Article 2	Article 3
Objectifs spécifiques	<ul style="list-style-type: none"> - Examiner la revendication selon laquelle il existe un déclin générationnel des échanges sociaux au travail, censé créer un véritable défi sur le plan de la gestion des ressources humaines. - Explorer comment l'appartenance à un groupe générationnel, celui des baby-boomers versus celui de la génération X, influence les relations entre le soutien perçu de l'organisation et des collègues, l'engagement envers l'organisation et les collègues, et les comportements de citoyenneté organisationnelle. 	<ul style="list-style-type: none"> - Examiner l'interaction de facteurs individuel, organisationnel et managérial, sur l'engagement et les comportements environnementaux des employés. - Explorer dans quelle mesure l'échange social influence l'engagement environnemental et les comportements d'éco-citoyenneté organisationnelle des employés en fonction de leurs croyances environnementales personnelles. - Conceptualiser et opérationnaliser la notion « d'engagement environnemental des employés ». 	<ul style="list-style-type: none"> - Examiner dans quelle mesure les échanges sociaux multiples au travail (les relations respectives entre le soutien perçu de l'organisation, du superviseur, et des collègues, et l'engagement envers l'organisation, le superviseur, et les collègues) influencent les initiatives éco-citoyennes des employés. - Explorer au sein des échanges sociaux multiples au travail le rôle proximal joué par les relations d'échange social avec les collègues sur les initiatives éco-citoyennes des employés.
Lacunes identifiées	<ul style="list-style-type: none"> - Domaine de recherche sous-représenté : quatre études intergénérationnelles sur les comportements de citoyenneté organisationnelle. - Des résultats contradictoires entre études. - Des résultats fondés sur des comparaisons (statistiques) de moyennes, ou sur des comparaisons (non statistiques) de régressions simples. - Rare différenciation des cibles d'échange social. 	<ul style="list-style-type: none"> - Domaine de recherche doublement sous-représenté : peu d'études systématiques sur les comportements pro-environnementaux au travail, et peu d'études sur l'engagement des employés envers les pratiques socialement responsables des organisations. - Aucun développement conceptuel de l'engagement environnemental des employés. - Faible pouvoir explicatif des construits attitudeux existants sur les comportements pro-environnementaux. 	<ul style="list-style-type: none"> - Domaine de recherche sous-représenté : peu d'études systématiques sur les comportements pro-environnementaux au travail. - Aucune étude sur l'influence des relations d'échange social avec les collègues sur les comportements pro-environnementaux des employés. - Rare différenciation des cibles d'échange social.
Préceptes théorique	Norme de réciprocité.	Norme de réciprocité et échange idéologique.	Norme de réciprocité.
Variables dépendantes	Comportements de citoyenneté organisationnelle.	Comportements d'éco-citoyenneté organisationnelle.	Comportements d'éco-citoyenneté organisationnelle : dimension éco-initiative.
Variables indépendantes	<ul style="list-style-type: none"> - Soutien perçu de l'organisation. - Soutien perçu des collègues. 	<ul style="list-style-type: none"> - Soutien perçu de l'organisation envers l'environnement (perception de la politique environnementale). - Soutien perçu du superviseur envers l'environnement. - Croyances environnementales personnelles. 	<ul style="list-style-type: none"> - Soutien perçu de l'organisation. - Soutien perçu des collègues. - Soutien perçu du superviseur.
Variables médiatrices	<ul style="list-style-type: none"> - Engagement affectif envers l'organisation. - Engagement affectif envers les collègues. 	<ul style="list-style-type: none"> - Engagement environnemental. 	<ul style="list-style-type: none"> - Engagement affectif envers l'organisation. - Engagement affectif envers les collègues. - Engagement affectif envers le superviseur.
Variables modératrices	Génération (baby-boomers versus génération X).	Croyances environnementales personnelles.	—

	Article 1	Article 2	Article 3
Devis de recherche	<ul style="list-style-type: none"> - Employés du secteur public d'une agence gouvernementale du Québec ($N = 682$). - Devis transversal avec questionnaire auto-rapporté. 	<ul style="list-style-type: none"> - Alumni en emploi d'une école de commerce française ($N = 531$). - Devis transversal avec questionnaire auto-rapporté. 	<ul style="list-style-type: none"> - Alumni en emploi d'une école de commerce mexicaine ($N = 449$). - Devis transversal avec questionnaire auto-rapporté.
Analyses	<ul style="list-style-type: none"> - Modélisation par équations structurelles pour les analyses de cheminements. - Test de Sobel pour les effets indirects (médiations simples). - Test d'invariance pour l'effet modérateur. 	<ul style="list-style-type: none"> - Modélisation par équations structurelles pour les analyses de cheminements. - Analyse par rééchantillonnage (<i>bootstrap</i>) pour les effets indirects (médiations simples). - Test d'invariance pour l'effet modérateur. 	<ul style="list-style-type: none"> - Modélisation par équations structurelles pour les analyses de cheminements. - Analyse par rééchantillonnage (<i>bootstrap</i>) pour les effets indirects (médiations simples et doubles).
Résultats principaux	<ul style="list-style-type: none"> - Le soutien perçu de l'organisation et des collègues influencent les comportements de citoyenneté organisationnelle des baby-boomers via l'engagement envers l'organisation et les collègues, respectivement. - Le soutien perçu des collègues influence les comportements de citoyenneté organisationnelle des membres de la génération X via l'engagement envers les collègues; à l'inverse, le soutien perçu de l'organisation et l'engagement envers l'organisation n'ont pas d'influence. - La relation entre le soutien perçu de l'organisation et l'engagement envers l'organisation est significativement plus élevée chez les baby-boomers que chez les membres de la génération X. 	<ul style="list-style-type: none"> - La perception de la politique environnementale de l'organisation, le soutien du superviseur, et les croyances environnementales personnelles, influencent les comportements d'éco-citoyenneté organisationnelle via l'engagement environnemental des employés. - La perception de la politique environnementale de l'organisation influence l'engagement environnemental des employés dont les croyances environnementales sont faibles; la relation disparaît pour les employés dont les croyances environnementales sont fortes. 	<ul style="list-style-type: none"> - Les initiatives éco-citoyennes des employés ne sont pas directement influencées, au sein des échanges sociaux multiples au travail, par les relations d'échange social avec l'organisation et le superviseur (opérationnalisées en termes de relation entre soutien perçu et engagement). - Les relations d'échange social avec l'organisation et le superviseur influencent indirectement les initiatives éco-citoyennes des employés, via les relations d'échange social avec les collègues; l'engagement envers les collègues servant de variable médiatrice.
Contributions principales	<ul style="list-style-type: none"> - Théorisation des freins à la réciprocité en fonction de la génération (baby-boomers versus membres de la génération X) et de la cible d'échange social (organisation versus collègues). - Confirmation de l'idée selon laquelle les membres de la génération X sont moins enclins à échanger des attitudes et comportements positifs en retour du soutien de leur employeur. - Pas de déclin générationnel absolu des relations d'échange social au travail : davantage d'affinité que de différence entre les baby-boomers et les membres de la génération X au regard des relations d'échange social avec l'organisation et les collègues. 	<ul style="list-style-type: none"> - Développement conceptuel et opérationnel de l'engagement environnemental des employés - Bon pouvoir explicatif de l'engagement environnemental. - Remise en cause de l'idée qu'une adéquation entre les valeurs environnementales organisationnelle et individuelle (un échange idéologique) renforce l'engagement des employés envers les pratiques socialement responsables des organisations. - Dépendamment des croyances environnementales personnelles, l'engagement environnemental peut-être autorégulé ou régulé extérieurement (théorie de l'autodétermination). 	<ul style="list-style-type: none"> - Importance de prendre en compte les relations d'échange social multiples au travail, et de considérer le rôle proximal joué par les relations d'échange avec les collègues. - Application de la théorie des champs aux échanges sociaux multiples au travail, et validation de ses préceptes aux comportements pro-environnementaux des employés en milieu organisationnel.

Tout d'abord, les articles 2 et 3 ajoutent chacun à la littérature comportementale et managériale sur l'écologisation des entreprises, en étudiant les comportements pro-environnementaux en milieu de travail de façon systématique (Boiral & Paillé, 2012; Paillé & Boiral, 2013). En effet, bien que le rôle clé joué par les employés dans des domaines tels que la prévention de la pollution, la gestion des déchets et la conservation des ressources semble relativement bien établi dans les recherches en management environnemental (e.g., Boiral, 2002; Hanna, Newman, & Johnson, 2000; Kitazawa & Sarkis, 2000; May & Flannery, 1995; Remmen & Lorentzen, 2000; Rothenberg, 2003; Ruiz-Quintanilla, Bunge, Freeman-Gallant, & Cohen-Rosenthal, 1996), celles-ci utilisent des devis de recherche généralement peu sujets à l'analyse quantitative et à la comparabilité statistique des résultats. De ce point de vue, notons également que l'article 2 contribue distinctement à la littérature en développant le concept d'engagement environnemental des employés, défini comme le sentiment d'attachement et de responsabilité d'un individu envers les préoccupations environnementales en milieu de travail. L'opérationnalisation du construit sous-jacent espère notamment combler les lacunes des rares travaux de recherches existants sur la question (Cantor, Morrow, & Montabon, 2012; Keogh & Polonsky, 1998; Perez, Amichai-Hamburger, & Shterental, 2009), dont les apports sont notables mais encore insatisfaisants. Nos résultats montrent que le construit d'engagement environnemental des employés possède un bon pouvoir explicatif sur les comportements pro-environnementaux au travail, confirmant ainsi l'intérêt empirique pour ce construit.

En outre, les articles 2 et 3 contribuent séparément à la littérature sur les échanges sociaux au travail. À travers ses résultats, l'article 2 remet en cause l'idée théoriquement avancée selon laquelle une adéquation entre les valeurs environnementales organisationnelle et individuelle (un échange idéologique) renforce l'engagement des employés envers les pratiques socialement responsables des organisations (e.g., Aguilera, Rupp, Williams, & Ganapathi, 2007; Bingham, Mitchell, Bishop, & Allen, 2013; Collier & Esteban, 2007). Nos résultats montrent en effet que le soutien perçu de l'organisation pour la protection de l'environnement influence uniquement les employés dont les croyances environnementales sont faibles, mais aucunement les employés possédant des croyances environnementales fortes. Il ne semble pas y avoir d'effet de synergie entre les

déterminants individuel et organisationnel. À tout le moins, les processus par lesquels les actions environnementales des organisations interagissent avec les préoccupations environnementales des employés semblent plus complexes qu'envisagé dans la littérature. Nous proposons notamment de nous tourner vers la théorie de l'autodétermination (Deci & Ryan, 1985; Ryan & Deci, 2000), afin de mieux comprendre la mesure dans laquelle l'engagement environnemental d'un employé se trouve être davantage autorégulé ou régulé extérieurement, dépendamment de ses croyances écologiques personnelles. Les implications sont significatives en termes de communication et de formulation interne des politiques environnementales organisationnelles, et mettent en exergue l'importance d'attirer l'attention des employés sur les actions et les réussites environnementales de l'organisation, afin d'influencer le sens que ceux-ci donnent aux pratiques environnementales en milieu de travail.

Les résultats de l'article 3 sont tout aussi enrichissants sur le plan théorique et pratique. La contribution principale de notre recherche est de montrer que les relations d'échange social avec l'organisation et le superviseur influencent indirectement les initiatives écocitoyennes des employés à travers leurs relations et leur engagement envers les collègues. Nous confirmons ainsi l'importance de prendre en compte simultanément plusieurs cibles d'échange social au travail afin d'avoir une vision plus holistique des phénomènes à l'œuvre et des processus sous-jacents. En mettant en relief le rôle proximal joué par les relations d'échange avec les collègues, nous validons également les préceptes de la théorie des champs (Lewin, 1943) aux comportements pro-environnementaux des employés en milieu organisationnel. Sur le plan pratique, les résultats de l'article 3 rejoignent en partie ceux de l'article 1, et font ressortir la nécessité de favoriser la cohésion d'équipe à travers la création de relations de haute qualité entre collègues de travail. De ce point de vue, les politiques de gestion des ressources humaines et le style de management du superviseur permettent d'agir concrètement sur le plan organisationnel, procédural et managérial. L'organisation et le personnel de gestion se doivent d'offrir un contexte de travail et une attribution des tâches facilitant le développement d'interactions qualitatives entre employés, aptes à nourrir des dynamiques d'équipe positives se manifestant par des attitudes et des comportements créateurs de valeur, y compris en soutien de l'environnement.

Sur la base de nos résultats s'ouvrent de nombreuses pistes de recherches futures. Dans un premier temps, chacun des trois articles de la thèse fait appel à la théorie de l'échange social en invoquant implicitement la norme de réciprocité, mais sans tenter d'en saisir l'essence tangible sur le plan opérationnel. Bien que cette pratique soit la plus répandue dans les études utilisant la théorie de l'échange social en comportement organisationnel (Coyle-Shapiro & Conway, 2004; Cropanzano & Mitchell, 2005), les travaux de recherche futurs gagneraient en force de persuasion théorique et empirique à mesurer la propension des individus à rétrocéder, et à tester son rôle modérateur effectif sur les relations d'échange social observées. Certains construits existent déjà pour ce faire, comme l'idéologie d'échange (Eisenberger, Huntington, Hutchison, & Sowa, 1986), l'idéologie de réciprocité (Eisenberger, Cotterell, & Marvel, 1987), le sentiment d'obligation ressenti (Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001), ou les croyances de réciprocité positive (Eisenberger, Lynch, Aselage, & Rohdieck, 2004). Deuxièmement, dans un souci de parcimonie et de cohérence conceptuelle entre les articles de la thèse, nous nous sommes concentrés sur les variables de la théorie de l'échange social les plus influentes dans la littérature : le soutien perçu, l'engagement, et les comportements de citoyenneté organisationnelle. Cela laisse d'autres concepts importants, tels le contrat psychologique, la confiance, la justice, ou encore l'identification organisationnelle, relativement inexplorés (tant dans les études sur les différences intergénérationnelles que dans les études sur le processus d'écologisation des entreprises). Il serait en effet intéressant d'examiner dans quelle mesure ces variables interviennent dans les processus d'échange sociaux étudiés dans nos articles, en tant que variables médiatrices et/ou modératrices.

Troisièmement, sur la base des fondements théoriques développés dans les articles de la thèse, les recherches futures devraient plus systématiquement analyser les relations d'échange social multiples au travail et tester l'interaction de variables contextuelles et individuelles. La cible d'échange social la plus prometteuse et la moins explorée dans la littérature est celle des collègues ou de l'équipe de travail (Bishop, Scott, & Burroughs, 2000; Chiaburu & Harrison, 2008). Par exemple, dans le domaine de l'écologisation des entreprises, les travaux futurs pourraient examiner l'influence du soutien perçu des collègues envers l'environnement, sur les comportements d'éco-citoyenneté

organisationnelle des employés. Sur le plan des variables individuelles, il serait intéressant d'explorer l'interaction de traits de personnalité ou d'émotions morales au travail, avec des variables de climat organisationnel indiquant le soutien envers la protection de l'environnement naturel. Les traits de personnalités peuvent être génériques (e.g., le modèle à cinq facteurs, Barrick & Mount, 1991), ou plus spécifiques au domaine étudié (e.g., Schwartz, 1994; Stern, Dietz, & Kalof, 1993). Quant aux émotions morales, celles-ci recouvrent typiquement la colère, la culpabilité, la honte ou la gêne, et tendent généralement à influencer les comportements éthiques par phénomène d'anticipation, afin d'éviter l'expérience négative avec laquelle elles sont associées (e.g., Eisenberg, 2000; Gaudine & Thorne, 2001).

Enfin, dans l'objectif de pallier certaines limites inhérentes aux devis de recherche transversaux avec questionnaire auto-rapporté, les futurs travaux de recherche sont de plus en plus appelés à utiliser des devis longitudinaux afin de renforcer la rigueur méthodologique des études et la validité interne des résultats. Certes, cela reste peu réaliste dans les études intergénérationnelles où l'intervalle entre deux administrations de la mesure se calcule en dizaine d'années. Cependant, l'effort est tout à fait possible et souhaitable pour l'étude des comportements pro-environnementaux des employés. À ce jour, à notre connaissance, il n'y a encore aucune recherche apportant des résultats d'étude longitudinale dans le domaine. De ce point de vue, un devis planifiant au moins trois temps de mesure, un premier pour les déterminants, un deuxième pour les médiateurs et/ou les modérateurs, et un troisième pour les conséquences, se révèle relativement approprié. Voici donc qui esquisse, pour les prochaines années, les contours d'un programme de recherche qui se veut non seulement ambitieux mais aussi coordonné et collectif, comme ce fut le cas pour cette thèse par articles.

Références – Conclusion

- Aguilera, R. V., Rupp, D. E., Williams, C. A., & Ganapathi, J. (2007). Putting the S back in corporate social responsibility: A multilevel theory of social change in organizations. *Academy of Management Review*, 32(3), 836-863.
- Atkinson, C. (2002). Career management and the changing psychological contract. *Career Development International*, 7(1)14-23.
- Barrick, M. R., & Mount, M. K. (1991). The big five personality dimensions and job performance: a meta-analysis. *Personnel Psychology*, 44(1), 1-26.
- Benson, J., & Brown, M. (2011). Generations at work: Are there differences and do they matter? *International Journal of Human Resource Management*, 22(9), 1843-1865.
- Bingham, J. B., Mitchell, B. W., Bishop, D. G., & Allen, N. J. (2013). Working for a higher purpose: A theoretical framework for commitment to organization-sponsored causes. *Human Resource Management Review*, 23(2), 174-189.
- Bishop, J. W., Scott, K. D., & Burroughs, S. M. (2000). Support, commitment, and employee outcomes in a team environment. *Journal of Management*, 26(6), 1113-1132.
- Blau, P. M. (1964). *Exchange and power in social life*. New York, NY: Wiley.
- Boiral, O. (2002). Tacit knowledge and environmental management. *Long Range Planning*, 35(3), 291-317.
- Boiral, O., & Paillé, P. (2012). Organizational citizenship behaviour for the environment: Measurement and validation. *Journal of Business Ethics*, 109(4), 431-445.
- Cantor, D. E., Morrow, P. C., & Montabon, F. (2012). Engagement in environmental behaviors among supply chain management employees: An organizational support theoretical perspective. *Journal of Supply Chain Management*, 48(3), 33-51.
- Chiaburu, D. S., & Harrison, D. A. (2008). Do peers make the place? Conceptual synthesis and meta-analysis of coworker effects on perceptions, attitudes, OCBs, and performance. *Journal of Applied Psychology*, 93(5), 1082-1103.
- Collier, J., & Esteban, R. (2007). Corporate social responsibility and employee commitment. *Business Ethics: A European Review*, 16(1), 19-33.
- Coyle-Shapiro, J. A-M., & Conway, N. (2004). The employment relationship through the lens of social exchange theory. In J. A-M. Coyle-Shapiro, L. M. Shore, M. S. Taylor, & L. E. Tetrick (Eds.), *The employment relationship: Examining psychological and contextual perspectives* (pp. 5-28). Oxford, UK: Oxford University Press.

- Cropanzano, R., & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, 31(6), 874-900.
- Daily, B. F., Bishop, J. W., & Govindarajulu, N. (2009). A conceptual model for organizational citizenship behavior directed toward the environment. *Business & Society*, 48(2), 243-256.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York, NY: Plenum.
- de Meuse, K. P., Bergmann, T. J., & Lester, S. W. (2001). An investigation of the relational component of the psychological contract across time, generation, and employment status. *Journal of Managerial Issues*, 13(1), 102-118.
- Eisenberg, N. (2000). Emotion, regulation, and moral development. *Annual Review of Psychology*, 51(1), 665-697.
- Eisenberger, R., Armeli, S., Rexwinkel, B., Lynch, P. D., & Rhoades, L. (2001). Reciprocation of perceived organizational support. *Journal of Applied Psychology*, 86(1), 42-51.
- Eisenberger, R., Cotterell, N., & Marvel, J. (1987). Reciprocation ideology. *Journal of Personality and Social Psychology*, 53(4), 743-750.
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*, 71(3), 500-507.
- Eisenberger, R., Lynch, P., Aselage, J., & Rohdieck, S. (2004). Who takes the most revenge? Individual differences in negative reciprocity norm endorsement. *Personality and Social Psychology Bulletin*, 30(6), 789-799.
- Emerson, R. M. (1962). Power-dependence relations. *American Sociological Review*, 27(1), 31-41.
- Gaudine, A. & Thorne, L. (2001). Emotion and ethical decision-making in organizations. *Journal of Business Ethics*, 31(2), 175-187.
- Gouldner, A. W. (1960). The norm of reciprocity: A preliminary statement. *American Sociological Review*, 25(2), 161-178.
- Hanna, M. D., Newman, W. R., & Johnson, P. (2000). Linking operational and environmental improvement through employee involvement. *International Journal of Operations & Production Management*, 20(2), 148-165.
- Hart, D. W., & Thompson, J. A. (2007). Untangling employee loyalty: A psychological contract perspective. *Business Ethics Quarterly*, 17(2), 297-323.

- Homans, G. C. (1958). Social behavior as exchange. *American Journal of Sociology*, 63(6), 597-606.
- Keogh, P. D., & Polonsky, M. J. (1998). Environmental commitment: A basis for environmental entrepreneurship? *Journal of Organizational Change Management*, 11(1), 38-49.
- Kitazawa, S., & Sarkis, J. (2000). The relationship between ISO 14001 and continuous source reduction programs. *International Journal of Operations & Production Management*, 20(2), 225-248.
- Lawler, E. J. (2001). An affect theory of social exchange. *American Journal of Sociology*, 107(2), 321-352.
- Lewin, K. (1943). Defining the field at a given time. *Psychological Review*, 50(3), 292-310.
- May, D. R., & Flannery, B. L. (1995). Cutting waste with employee involvement teams. *Business Horizons*, 38(5), 28-38.
- Paillé, P., & Boiral O. (2013). Pro-environmental behavior at work: Construct validity and determinants. *Journal of Environmental Psychology*, 36, 118-128.
- Perez, O., Amichai-Hamburger, Y., & Shterental, T. (2009). The dynamic of corporate self-regulation: ISO 14001, environmental commitment, and organizational citizenship behavior. *Law & Society Review*, 43(3), 593-630.
- Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*.
- Ramus, C. A. (2001). Organizational support for employees: encouraging creative ideas for environmental sustainability. *California Management Review*, 43(3), 85-105.
- Ramus, C. A., & Steger, U. (2000). The roles of supervisory support behaviors and environmental policy in employee "ecoinitiatives" at leading-edge European companies. *Academy of Management Journal*, 43(4), 605-626.
- Remmen, A., & Lorentzen, B. (2000). Employee participation and cleaner technology: Learning processes in environmental teams. *Journal of Cleaner Production*, 8(5), 365-373.
- Rothenberg, S. (2003). Knowledge content and worker participation in environmental management at NUMMI. *Journal of Management Studies*, 40(7), 1783-1802.
- Ruiz-Quintanilla, S. A., J. Bunge, A. Freeman-Gallant, & Cohen-Rosenthal, E. (1996). Employee participation in pollution reduction: A socio-technical perspective. *Business Strategy and the Environment*, 5(3), 137-144.

- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78.
- Schwartz, S. H. (1994). Are there universal aspects in the structure and contents of human values?. *Journal of Social Issues*, 50(4), 19-45.
- Stern, P. C., Dietz, T., & Kalof, L. (1993). Value orientations, gender, and environmental concern. *Environment and Behavior*, 25(5), 322-348.
- Thibault, J. W., & Kelley, H. H. (1959). *The social psychology of groups*. New York: NY: Wiley.
- Thompson, J. A., & Bunderson, J. S. (2003). Violations of principle: Ideological currency in the psychological contract. *Academy of Management Review*, 28(4), 571-586.