



# Aversive States Affecting Consumer Behavior

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Par

**Ms. Elena FUMAGALLI**

Aversive States Affecting Consumer Behavior

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**Composition du Jury :**

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*Per aspera ad astra.*

*- Marco Tullio Cicerone*

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# Résumé de Thèse

## L'influence des états aversifs sur le comportement du consommateur

Le dictionnaire de Cambridge définit aversive comme: a) quelque chose doit être évité ou craint; b) un stimulus désagréable destiné à induire un changement de comportement. L'aversion et les stimuli aversifs ont été largement étudiés en psychologie, en particulier dans le domaine du changement de comportement. Dans les années 1970 et au début des années 1980, les chercheurs étudient comment ils peuvent changer les comportements en associant un comportement aversif à un comportement qu'ils souhaitent modifier ou en associant un résultat agréable à un comportement qu'ils souhaitent renforcer (p. théorie du conditionnement opérant). En me basant sur les preuves recueillies en psychologie et en psychothérapie, sur le fait que les stimuli aversifs influencent le comportement humain, je me concentre sur la façon dont les stimuli aversifs changent inconsciemment le comportement des consommateurs. Passant au domaine du comportement du consommateur, cette thèse examine les stimuli aversifs qui sont fréquemment rencontrés dans les contextes de consommation, tels que les émotions désagréables et les résultats indésirables, qui incitent les consommateurs à réagir. La présente recherche montre que la façon dont les consommateurs réagissent est la plupart du temps inconsciente et va souvent à l'encontre de ce que les connaissances communes suggèrent, ce qui rend difficile la prédiction et l'action des praticiens du marketing à moins d'être découvert par la recherche.

Dans le premier essai, j'examine comment des expériences émotionnelles aversives peuvent affecter le sens du soi des consommateurs et une consommation compensatoire rapide. Les professionnels du marketing utilisent souvent des images choquantes pour faire peur aux consommateurs de se conformer aux messages de leurs publicités, une pratique



communément appelée «shockvertising». Les images de choc provoquent souvent des sentiments de dégoût physique et moral qui, en psychologie, mais non dans la recherche auprès des consommateurs, ont été identifiés comme deux émotions distinctes. Sur la base de la théorie de l'évaluation des émotions, je postule que différentes émotions conduisent à différentes évaluations cognitives de l'événement émotionnel, ce qui à son tour suscitera des réponses comportementales différentes. Spécifiquement, je soutiens que le dégoût physique diminue le sentiment de pouvoir des consommateurs, ce qui les incite à agir de manière auto-centrée pour le restaurer (par exemple, consommer ostensiblement). En revanche, le dégoût moral diminue le sentiment d'appartenance des consommateurs, ce qui les incite à agir de manière prosociale (par exemple, faire un don à la charité) pour le restaurer. Le premier essai vise ainsi à montrer que même si les deux typologies de dégoût sont aversives, elles induisent des tendances comportementales de consommation inconscientes qualitativement différentes.

Dans le deuxième essai, j'analyse pourquoi les consommateurs réagissent négativement à la fin des initiatives inconditionnelles de don d'entreprise à consommateur. La sagesse commune pourrait suggérer qu'après avoir reçu des cadeaux inconditionnels d'une entreprise (p. Ex. Cadeaux), les consommateurs manifesteraient un sentiment de gratitude et seraient plus disposés à rendre la pareille, ou du moins moins disposés à nuire à l'entreprise donatrice. Cependant, je soutiens que les inférences causales causales (c.-à-d., Pourquoi est-ce que je reçois ces cadeaux?) Que font les consommateurs lorsque des entreprises font quelque chose sans fournir d'explication motiveront leurs comportements subséquents. Lorsque les entreprises fournissent des cadeaux inconditionnels de manière répétée et régulière, elles incitent les consommateurs à déduire qu'elles sont particulières à l'entreprise et qu'elles méritent de tels dons. De telles déductions de la valeur client déclenchent des sentiments de droit du client, ce qui, à son tour, provoque des intentions comportementales négatives de la part des clients lors de la résiliation de cadeaux. Le deuxième essai tente donc

de déterminer si la cessation d'initiatives inconditionnelles de don d'entreprise à consommateur peut être considérée comme un stimulus désagréable, plutôt qu'un événement neutre, qui induit un changement inattendu dans le comportement des clients pour contrer son aversion.

Enfin, dans le troisième essai, j'aborde la question importante de la solitude croissante des consommateurs, et de la façon dont la solitude peut changer leur perception de savoir si les interactions haptiques avec d'autres individus ou objets sont considérées comme aversives ou plaisantes. La sagesse commune pourrait suggérer que lorsque les individus se sentent seuls, être touché par une autre personne serait perçu comme une forme agréable de reconnexion sociale. En conséquence, de nombreux produits et services impliquant le toucher sont commercialisés aujourd'hui pour guérir ce qui peut être considéré comme une épidémie de solitude moderne (par exemple, des chaises câlin, des cliniques de câlins). En outre, la recherche sur le toucher dans divers domaines, y compris le comportement des consommateurs, a montré qu'elle favorise de nombreux effets positifs tels que l'augmentation des affects positifs, l'augmentation de la persuasion et de la compliance, l'augmentation de l'ocytocine, d'inclusion sociale. Par conséquent, il est logique de penser que la plupart des gens devraient accueillir des expériences haptiques, et que les spécialistes du marketing devraient s'efforcer de les fournir. Cependant, la littérature sur la solitude fournit des résultats mitigés, rapportant des cas d'individus isolés cherchant et évitant les reconnections sociales. Par conséquent, nous postulons et testons que lorsque les individus ne cherchent pas à se reconnecter socialement, comme lorsqu'ils sont chroniquement plutôt que solitaires, ils percevront le contact interpersonnel comme étant aversif plutôt que plaisant et thérapeutique.

Les trois essais contribuent à la littérature sur les émotions, les menaces identitaires et la consommation compensatoire, à la littérature sur la promotion des ventes et à la littérature sur la solitude. De plus, les résultats de la recherche éclairent les pratiques de marketing dans

les domaines de la publicité, de la promotion des ventes et de l'haptique des consommateurs. Enfin, cette recherche donne un aperçu du bien-être du consommateur en attirant l'attention sur les conséquences imprévues des actions des marketers qui cherchent à bénéficier aux consommateurs, mais qui génèrent plutôt des comportements compensatoires pour faire face à leur aversion.

## ESSAI 1. Quand le dégoût vous met à terre: l'effet de l'exposition au dégoût sur l'identité des consommateurs et la consommation compensatoire

Les consommateurs font régulièrement face à des images dégoûtantes, que ce soit de la publicité de produits (produits d'hygiène, par exemple), des messages d'intérêt public (campagnes antitabac) ou des expériences de consommation (par exemple, des chambres d'hôtel sales). L'utilisation d'images fortes et choquantes est répandue dans la pratique publicitaire, mais presque toutes les preuves qui sont prises en compte pour évaluer son efficacité sont soit anecdotiques, soit liées à attirer l'attention des consommateurs. Pour briser le fouillis publicitaire, les marketers visent à choquer leur public en portant attention à leurs messages en utilisant des images fortes qui sont en contradiction avec les normes sociétales (par exemple, shockvertising, Dahl, Frankenberger, & Manchanda, 2003). Cette pratique est si répandue que les consommateurs se plaignent souvent auprès des autorités de régulation de l'agressivité des messages publicitaires. Par exemple, en Europe uniquement, selon le rapport 2016 de l'Alliance européenne pour les normes publicitaires (AESA) sur les tendances en matière de plaintes publicitaires, les plaintes liées au goût et à la décence représentaient 37% des plaintes déposées en 2016 (24 065 plaintes). De plus, les plaintes relatives au goût et aux bonnes mœurs ont continué d'augmenter régulièrement depuis 2012, par rapport à d'autres types de plaintes.

Même si le shockvertising est répandu et de plus en plus utilisé, son efficacité n'a jamais été démontrée empiriquement dans la littérature marketing, et les chercheurs ont appelé à l'examen des facteurs modérateurs possibles (Bushman et Lull, 2015; Peters, Ruiter, 2016; & Kok, 2013, Witte et Allen, 2000). Nous pensons que l'une des raisons de l'absence de conclusion est que l'efficacité a souvent été mesurée en termes d'attractivité et de bruit social plutôt qu'en termes de comportement suscité (Brown, Bhadury, & Pope, 2010, Sabri, 2012).

De plus, différentes typologies d'éliciteurs choquants étaient souvent considérées comme homogènes, au lieu d'être classées en fonction de l'émotion spécifique qu'elles suscitaient (par exemple, le dégoût, l'indignation morale, la peur, Dahl et al., 2003, Morales, Wu et Fitzsimons, 2012). Finalement, même lorsque des efforts ont été faits pour distinguer les différentes émotions suscitées et mesurer le comportement réel, le comportement mesuré était la conformité au message lui-même, laissant d'autres comportements conscients ou inconscients inexplorés (Dahl et al., 2003, Morales et al. 2012, Scudder & Mills, 2009).

Dans l'ensemble, ces lacunes limitent la compréhension des conséquences que les images choquantes utilisées dans les messages publicitaires ont sur les consommateurs. Pour combler cette lacune, nous postulons qu'il est important de : 1) faire la distinction entre les différentes émotions utilisées dans le choc et, en particulier, entre les éliciteurs de dégoût physique et moral; et 2) explorer toutes les typologies de tendances comportementales qui peuvent découler de l'exposition à des images fortes, non seulement la conformité des messages, mais aussi des réponses comportementales inconscientes déclenchées par l'aversion de l'image.

La distinction entre différents éliciteurs est particulièrement importante parce que le dégoût est souvent utilisé pour choquer, et bien que la recherche sur le consommateur ait généralement considéré le dégoût comme une émotion homogène (Morales et al., 2012)

(Morales et al., 2012). La recherche psychologique l'a longtemps considérée comme une émotion hétérogène (Olatunji, 2008, Rozin, Haidt et McCauley, 2008). La recherche a identifié deux types de dégoût: le dégoût physique et le dégoût moral (Lee et Ellsworth, 2013, Marzillier, 2004). Le dégoût physique est provoqué par des stimuli qui provoquent la peur de l'incorporation orale (par exemple produits corporels, cafards), tandis que le dégoût moral apparaît lorsque les individus sont confrontés à des comportements jugés socialement ou moralement inacceptables (racisme, inceste). Étant donné que les émotions distinctes ont des effets différents sur les cognitions, les motivations et les comportements, il est probable que différents types de dégoût produisent aussi des types de réponses comportementales nettement différents.

De plus, considérer toutes les tendances comportementales que produisent les images choquantes aidera à clarifier l'impact de la surenchère sur les consommateurs au-delà de la simple prise de conscience, de la mémorisation et de la conformité. Il est important d'explorer si les images aversives déclenchent des comportements inconscients et comment cette aversion menace le sentiment de soi des consommateurs. Il y a de plus en plus de preuves que les émotions et le sentiment de soi sont intimement liés. Par exemple, la recherche a montré que ce que nous sommes peut définir les émotions avec lesquelles nous sommes plus ou moins en accord (Coleman et Williams, 2013, 2015, Morales et Wu, 2012). Si des événements émotionnels tels que l'exposition à une publicité choquante sont perçus comme aversifs et menaçants pour notre sens de soi, ils provoqueront des comportements compensatoires inconscients. Par conséquent, la mesure dans laquelle une publicité aboutira au comportement souhaité du consommateur dépendra aussi de l'aspect menacé du soi qui déclenche la réponse.

Pour tester nos hypothèses, nous avons mené une série de huit études utilisant plusieurs manipulations et mesures. Le plan de conception expérimental était le même pour

les huit études. Les participants ont été assignés au hasard à revoir une série de stimuli (images ou vidéos, IV) prétestés pour susciter des sentiments neutres (groupe témoin) ou des sentiments de dégoût physique ou moral (groupes expérimentaux). Par la suite, ils ont rapporté ce qu'ils ressentaient en examinant les stimuli (dégoûtés, moralement indignés, tristes, craintifs, en colère, etc.) ou ils ont répondu à des questions bidon concernant les stimuli (goût, nouveauté, etc.). Enfin, les participants ont complété une étude ostensiblement indépendante dans laquelle nous avons mesuré la mesure dans laquelle ils ont compensé leur besoin d'énergie menacé (via une consommation ostentatoire ou statutaire) et leur appartenance (via un comportement d'aide).

En analysant nos résultats, nous avons suivi un modèle méta-analytique à effets aléatoires. Un modèle à effets aléatoires, différent d'un modèle à effets fixes, est le plus approprié lorsque le but de la méta-analyse est de généraliser les résultats au-delà de l'ensemble des études analysées, et lorsque les chercheurs supposent qu'il n'y a pas de taille d'effet unique, mais ces tailles d'effet à étude unique représentent un échantillon aléatoire tiré d'une distribution des tailles d'effet (Borenstein, Hedges, Higgins et Rothstein, 2010, Tufanaru, Munn, Stephenson et Aromataris, 2015). Étant donné que nous cherchons à généraliser nos résultats au-delà des études que nous avons analysées et que nous avons utilisé plusieurs opérationnalisations de variables indépendantes et dépendantes, nous analysons nos tailles d'effets au niveau d'un modèle à effets aléatoires.

Nous avons combiné nos études en utilisant une méta-analyse de variance inverse avec Revman version 5.3, et nous avons calculé la différence moyenne pondérée standardisée (SMD) entre les groupes expérimentaux et témoins avec son intervalle de confiance à 95%. Nous avons effectué les analyses pour l'effet de compensation de la menace de puissance de l'exposition au dégoût physique et pour l'effet de compensation de la menace d'appartenance de l'exposition au dégoût moral.

Nos résultats suggèrent que l'exposition au dégoût physique et le dégoût moral suscitent différents comportements compensatoires. Spécifiquement, nos résultats confirment que l'exposition au dégoût physique augmente la tendance à s'engager dans des comportements de compensation de la menace de puissance tandis que l'exposition au dégoût moral augmente la tendance à s'engager dans des comportements de compensation de la menace d'appartenance. Notre approche méta-analytique indique également que ces résultats sont stables à travers une variété de techniques d'élicitation des émotions (images, vidéos, vignettes écrites) et à travers une variété d'opérationnalisations variables dépendantes à la fois pour le pouvoir (c.-à-d. produits, échelle de consommation ostentatoire, préférence pour les logos de marque plus grands) et appartenance (c.-à-d. comportement aidant, probabilité et montant des dons de bienfaisance) compensation.

## ESSAI 2. Trop gâté: cadeaux inconditionnels d'entreprise à consommateur (B2C) et intentions comportementales négatives

Les cadeaux inconditionnels d'entreprise à consommateur (B2C) sont définis comme des cadeaux que les entreprises offrent à leurs clients, qu'ils aient ou non déployé des efforts pour les obtenir (Beltramini, 1992, 2000, Otnes et Beltramini, 1996). En d'autres termes, ce sont des cadeaux spontanés que les entreprises offrent inconditionnellement à leurs clients, c'est-à-dire sans critères d'admissibilité préétablis ou demande explicite de réciprocité (p. «Voici un dessert gratuit avec dîner» contre «obtenez un dessert gratuit si vous commandez plus de 50 \$ » ou « obtenez un dessert gratuit si vous passez trois commandes dans les deux mois »). Il n'est pas rare que les entreprises offrent des marques d'appréciation à leurs clients même s'ils ne souscrivent pas à un programme de fidélité spécifique et même s'ils n'ont pas acheté une certaine quantité de produits ou de services. Un don de ce genre peut être

considéré comme une forme d'échange social, par opposition à un échange économique, et théoriquement devrait être plus efficace pour susciter des sentiments de gratitude, stimuler la réciprocité et établir des relations durables (Henderson, Beck, & Palmatier, 2011, Morales, 2005, Palmatier, Jarvis, Bechkoff et Kardes, 2009).

Une étude récente d'Accenture aux États-Unis rapporte que «Recevoir des marques d'affection» est le troisième facteur, après «Brands protégeant leurs informations personnelles» et «Brands respectant leur temps», influençant la fidélité à la marque. De plus, le sondage révèle que 59% des consommateurs américains se sentent fidèles aux marques qui leur présentent de petites marques d'affection, comme des rabais personnalisés, des cartes-cadeaux et des offres spéciales pour récompenser leur fidélité (Accenture, 2016). Cependant, des recherches antérieures ont montré que le traitement spécial du client pourrait également entraîner des conséquences négatives injustifiées. Les clients gâtés développent un sens dangereux des droits qui augmente les coûts, diminue les bénéfices et provoque des comportements contraires à l'éthique (Polyakova, Ordanini, & Estes, 2014, Wetzel, Hammerschmidt & Zablah, 2014). Malgré ces premières études examinant la relation entre les efforts relationnels des entreprises et les droits des clients, notre compréhension de la raison et de la façon dont les droits des clients prennent naissance dans ces contextes promotionnels reste limitée. Nous nous appuyons sur la théorie de l'attribution (Folkes, 1988, Kelley, 1967, 1973) pour affirmer et démontrer que, même s'ils sont donnés sans condition, les clients ont droit à des cadeaux d'entreprise à consommateur lorsqu'ils sont valables et lorsqu'ils sont fournis régulièrement. base prévisible. Nous trouvons trois conditions limites qui, avec nos résultats empiriques supplémentaires, nous permettent de fournir des informations managériales exploitables pour aider les entreprises à empêcher les clients d'avoir droit à leurs initiatives de dons.

Une autre question qui reste inexplorée par la littérature existante sur les cadeaux



d'affaires est ce qui se passe lorsque les entreprises mettent fin à des initiatives de dons. En dépit de l'utilisation accrue des cadeaux, des remises d'anniversaire, de la livraison gratuite et d'autres formes de cadeaux inconditionnels d'entreprise à consommateur régulièrement donnés par des entreprises sans minimum d'achat (par exemple, Sephora Free Make Overs, Krispy Kream Free Donut Day, Ateliers pour enfants à Home Depot), et malgré les acclamations grandissantes pour de telles actions marketing dans la presse populaire (Alton 2016, Fasig 2015, Ferdman 2015, Hall 2013 et White 2013), aucune recherche n'a examiné ce qui arrive quand les entreprises décident de cesser de donner gratuitement cadeaux.

Nous pensons que cette question n'est pas anodine car une tendance mondiale à la cessation de l'escalade promotionnelle et à la redéfinition des budgets promotionnels est en train d'émerger (Eales, 2016, IEG, 2017). En outre, il est courant pour les entreprises de mettre fin aux dons et autres efforts promotionnels lorsque l'offre devait être pour une durée limitée. Contrairement aux programmes de fidélisation pour lesquels les entreprises doivent utiliser une stratégie de sortie (par exemple, une date pour racheter les points restants) pour s'assurer que leurs clients ne réagiront pas négativement à sa résiliation (Melnik & Bijmolt, 2015; pourrait supposer à tort que mettre fin à des cadeaux inconditionnels d'entreprise à consommateur ne nécessite pas une stratégie formelle de résiliation en raison de la nature inconditionnelle du cadeau. Lorsque les efforts promotionnels des entreprises sont basés sur des exigences de programmes de fidélisation que les clients remplissent et leur communiquent clairement (p. Ex., La collecte de 100 points donne accès à la zone VIP), les clients ont le sentiment de mériter un traitement spécial en raison de leur loyauté ou actions énergiques. Il est moins clair de savoir si les clients ont le sentiment que les entreprises leur offrent des cadeaux inconditionnels sans expliquer le but ou les limites de la promotion. Le bon sens suggère que les clients qui n'ont rien à faire pour obtenir un avantage ne devraient pas croire qu'ils le méritent et ne devraient donc pas réagir négativement à la fin de

l'initiative.

S'il n'est pas testé empiriquement, l'hypothèse selon laquelle aucune stratégie de résiliation n'est requise peut être extrêmement dangereuse pour les entreprises. Des preuves anecdotiques suggèrent que la fin des initiatives promotionnelles peut générer une grande variété de comportements de représailles négatifs des clients. Par exemple, lorsque Subway a mis fin à son initiative Sub Club, les clients se sont déchaînés contre des employés, ont lancé une pétition en ligne et se sont plaints sur leurs blogs personnels (Ogles, 2005). Plus récemment, les changements apportés par Starbucks à son programme de récompenses ont provoqué l'indignation de ses clients, en particulier ceux de niveau or, qui ont protesté sur Twitter et annoncé publiquement leurs intentions de passer à la concurrence (Mezzofiore, 2016). Notre étude comble cette lacune et élargit la littérature antérieure en examinant l'effet de la cessation inconditionnelle d'initiatives de don d'entreprise à consommateur sur les tendances comportementales négatives des clients envers les entreprises. Nous constatons que lorsque les clients ont droit aux dons inconditionnels des entreprises et que les entreprises mettent fin à leurs initiatives de dons, les clients affichent des tendances comportementales négatives envers l'entreprise qui les a gâtés. Par exemple, nous montrons que les clients qui se sentent lésés expriment leur volonté de représailles contre l'entreprise en cessant d'acheter le produit ou le service, en achetant ailleurs, en répandant un bouche-à-oreille négatif et même en déposant des plaintes directes (Grégoire et Fisher, 2008; Huefner & Hunt, 2000).

Une série de quatre études examine ce qui se passe lorsque les clients ne reçoivent plus de cadeaux inconditionnels et constate que les clients expriment en effet des intentions comportementales négatives envers les entreprises. Les deux premières études se concentrent sur la découverte des antécédents du droit du client dans le contexte de la distribution inconditionnelle de cadeaux d'entreprise à consommateur. Les études 1 et 2 démontrent que seuls les clients qui reçoivent régulièrement et à plusieurs reprises des cadeaux

inconditionnels de valeur développent un sentiment de droit. Dans l'étude 3, nous validons que la régularité est un antécédent important du droit du client, mais nous démontrons également que le renforcement de la gratitude des clients peut contrecarrer les intentions négatives des clients suite à la résiliation inconditionnelle des dons. Enfin, en approfondissant le processus d'admissibilité des clients, nous montrons dans l'étude 4 que les clients ont droit à des cadeaux qu'ils ne gagnent pas parce qu'ils en déduisent qu'ils sont précieux pour l'entreprise. Avec une *moderation-of-process design*, nous montrons que lorsque les clients sont explicitement informés par le cabinet que les critères de sélection des destinataires ne sont pas liés à la valeur du client, ils ne se sentent plus autorisés ou affichent des intentions comportementales négatives.

### ESSAI 3. Tu ne peux pas me toucher: l'effet de la solitude sur la préférence pour les expériences de consommation haptique

Nous vivons dans une ère de «connectivité» et de «réseautage social» dans laquelle la personne moyenne passe 135 minutes par jour sur les médias sociaux (GlobalWebIndex 2017). Néanmoins, l'épidémie de solitude moderne et ses conséquences néfastes sur la santé et le bien-être sont un sujet de plus en plus discuté dans tous les grands médias (Irving 2018, Klinenberg 2018, Noack 2018). Même si les médias sociaux visent à connecter les gens, il est possible qu'ils fassent exactement le contraire. D'après les médias, il semble que les pays pour lesquels l'épidémie de solitude est la plus forte sont ceux qui ont le plus recours aux médias sociaux, et que le groupe d'âge le plus touché par la solitude est celui des jeunes. Conformément à cette observation, un nombre croissant d'études examinant les conséquences négatives de l'utilisation des technologies numériques et des médias sociaux indiquent que la solitude est fortement corrélée au temps passé sur ces plateformes (Pepper et Harvey, 2018,

Primack et al., 2017). Étant donné que cette tendance technologique et sociétale est peu susceptible d'être inversée, il est important d'étudier la solitude, son fonctionnement et ses conséquences en aval pour la consommation.

La solitude est une émotion négative aversive, et de nombreuses études ont montré que la consommation de certains biens pouvait aider à l'atténuer (Mourey et al., 2017, Troisi et Gabriel 2011, Zhou et al., 2008). Habituellement, on recherche des produits et des services qui assurent une sorte de reconnexion sociale (Chen et al., 2017, Lastovicka et Sirianni, 2011, Wang et al., 2012). Une autre voie possible de reconnexion sociale, qui est au centre de cette recherche, pourrait être le contact interpersonnel. La recherche montre que le toucher interpersonnel favorise de nombreux résultats positifs, tels que l'augmentation des affects positifs, l'augmentation de la persuasion et de l'observance, l'augmentation de l'ocytocine («l'hormone câline») et le rappel de l'inclusion sociale (Gallace et Spence 2010). Dans la présente recherche, nous nous concentrons sur les expériences de consommation haptique en tant que moyen pour les consommateurs de parvenir à la reconnexion sociale. Haptique est défini comme quelque chose relatif ou basé sur le sens du toucher, et donc nous nous concentrons sur toutes les activités de consommation qui favorisent ou ont une composante de contact interpersonnel (par exemple, obtenir un vêtement sur mesure).

Parallèlement à l'épidémie de solitude, les preuves suggèrent que les gens sont également confrontés à une crise du toucher, ce qui signifie que les interactions modernes entre les individus manquent d'une composante de contact interpersonnel (Cocoza 2018). Cependant, les êtres humains ont un besoin inhérent de toucher interpersonnel et de connectivité sociale qui commence à l'enfance (Gallace et Spence 2010). Par conséquent, pour combler ce besoin humain frustré de toucher et de connectivité, des produits et des services de consommation offrant des expériences haptiques sont de plus en plus offerts sur le marché. Un exemple de produit est Quoobo, est un robot thérapeutique en forme de coussin

avec une queue qui remue, comme celle d'un chat, qui sert prétendument à guérir en soulageant le stress. Un exemple de service est Cuddlist.com, un site Web où les gens peuvent réserver une séance de câlins thérapeutiques avec un câlin professionnel.

De nouveaux dispositifs et services de produits sont également conçus pour compenser le manque d'interaction humaine et de sensations haptiques dans les formes de communication médiatisées (c'est-à-dire hapticons, Haans et IJsselsteijn 2006). Par exemple, le HugShirt est un appareil portable qui ressemble à un t-shirt ordinaire mais qui permet aux consommateurs de s'envoyer des câlins de la même manière qu'ils s'envoient des textos. Jusqu'ici, la recherche sur le toucher a étudié les différences individuelles dans la propension au toucher, la différence situationnelle encourageant le toucher, les caractéristiques du produit encourageant le toucher et l'influence du toucher sur la prise de décision (Jansson-Boyd 2011, Peck and Childers 2008). Cependant, à notre connaissance, aucune recherche n'a étudié l'interaction entre les expériences de consommation haptique et la solitude. Nous croyons que combler cette lacune est de plus en plus important pour la société d'aujourd'hui, où les gens sont confrontés à des crises de solitude et de contact, qui entraînent des investissements marketing dans le développement de produits et services thérapeutiques.

La sagesse commune suggère que de tels investissements de marketing sont justifiés et qu'un consommateur solitaire serait plus susceptible de rechercher ou d'avoir une vision plus favorable des expériences de consommation avec une composante haptique. Cependant, contre-intuitivement, dans notre recherche, nous observons exactement le contraire. À travers une série d'études, nous montrons que la solitude chronique est négativement corrélée avec le confort avec le contact interpersonnel. Nous montrons que cette relation est médiatisée par la confiance interpersonnelle: la solitude chronique est associée à une moindre confiance interpersonnelle, qui à son tour est associée à moins de confort avec le contact interpersonnel. Enfin, nous montrons que cet inconfort lié au contact interpersonnel se répercute sur les

interactions en magasin avec les vendeurs et les autres clients, de sorte que les consommateurs solitaires chroniques évitent plutôt que de rechercher des situations impliquant un contact interpersonnel.

Nous montrons que les consommateurs solitaires chroniques évitent les expériences de consommation haptiques, et qu'ils le font parce qu'ils manquent de confiance interpersonnelle, ce qui abaisse leur confort avec le toucher interpersonnel plus généralement. Au cours de trois études, nous avons trouvé des appuis pour deux de nos trois hypothèses, et nous pouvions reproduire régulièrement nos résultats en utilisant différentes mesures d'expériences haptiques en magasin. Malheureusement, nous n'avons pas été en mesure de soutenir notre différence hypothétique entre les consommateurs solitaires chroniquement et solitaires situationnellement. Nous avons postulé que l'effet négatif de la solitude sur les attitudes vis-à-vis des expériences de consommation haptiques ne serait valable que pour les individus solitaires chroniques en raison de leur hypervigilance envers les opportunités de reconnexion sociale les rendant moins confiants envers les autres. Cependant, dans l'étude 2, notre manipulation de la solitude n'a pas réussi à manipuler de manière significative les sentiments d'état de solitude des participants et la seconde hypothèse n'a pas pu être testée.

En plus de tester nos hypothèses principales, nos études: 1) ont exploré des alternatives qui pourraient concurrencer notre théorisation (c.-à-d., Cognitions de contamination et prise de risque social); 2) a examiné si notre effet était spécifique aux expériences de consommation haptique ou étendu à d'autres options de reconnexion sociale que les activités de consommation pouvaient offrir (c.-à-d., produits anthropomorphiques); et 3) ont cherché à savoir si l'effet était spécifique à une certaine typologie de l'interaction interpersonnelle haptique (c.-à-d., tactile fonctionnel et imposé). Dans l'ensemble, nous avons trouvé que l'effet négatif de la solitude chronique sur les attitudes vis-à-vis des expériences haptiques s'explique par la confiance interpersonnelle et le confort avec le contact

interpersonnel, et il est peu probable que cela s'explique par d'autres pensées anxieuses. individuels tels que les cognitions de contamination accrue et la prise de risque social réduit. De plus, nous avons constaté que notre effet ne s'étend pas aux autres options de consommation qui pourraient agir comme des substituts indirects de la reconnexion sociale directe tels que les produits anthropomorphiques. Des recherches antérieures ont montré que les individus solitaires préfèrent les produits anthropomorphiques et les marques (Chen et al 2017, Mourey et al., 2017), mais ces résultats étaient basés sur des procédures expérimentales qui manipulaient la solitude de l'état plutôt que de mesurer la solitude chronique. rappel d'exclusion sociale). Les résultats de ces études précédentes confèrent une crédibilité supplémentaire à notre hypothèse deux (H2), actuellement non testée, car il semble que les individus en situation chronique chercheront en effet des options de consommation qui offrent des opportunités de reconnexion (indirectement ou directement).

## Conclusion générale

En conclusion, avec mes trois essais, j'examine comment les consommateurs réagissent aux stimuli aversifs d'une manière qui n'était pas prévue et comment les caractéristiques des consommateurs pourraient affecter si un stimulus est réputé aversif. Comprendre ce qui motive les comportements inconscients dans divers domaines de consommation a des implications importantes sur la manière dont les marketeurs conçoivent leurs initiatives et sur le bien-être généralisé des consommateurs.

Le premier essai s'est concentré sur la façon dont les sentiments de dégoût physique et moral peuvent menacer le sentiment de soi d'un consommateur et le motiver à s'engager dans une consommation compensatoire. À travers une méta-analyse sur papier, basée sur les résultats de huit expériences individuelles utilisant plusieurs manipulations et mesures, je

montre que le dégoût physique diminue le sentiment de pouvoir des consommateurs, ce qui les incite à consommer des biens ostensibles afin de restaurer leur sentiment de Puissance. En revanche, le dégoût moral diminue le sentiment d'appartenance des consommateurs, les poussant à agir de manière prosociale, afin de restaurer leur sentiment d'appartenance. Les spécialistes du marketing emploient souvent de telles images pour effrayer les consommateurs ou pour briser le fouillis publicitaire. mes recherches fournissent un nouvel aperçu des conséquences comportementales subconscientes spécifiques que comportent ces images aversives.

Le deuxième essai a exploré comment les consommateurs réagissent lorsque les entreprises cessent de leur offrir des cadeaux inconditionnels. Généralement, les entreprises gâtent leurs clients pour susciter leur gratitude, mais mes résultats montrent qu'au-delà de la première fois qu'ils reçoivent un cadeau, un sentiment de droit (c.-à-d. «Je le mérite») s'accumule et surmonte la gratitude. Quatre expériences démontrent que la fin des initiatives inconditionnelles de don d'entreprise à consommateur fait courir aux entreprises un plus grand risque de représailles de la part des clients qu'elles ont gâtées. Offrir des cadeaux de valeur à plusieurs reprises et régulièrement augmente le sens des droits des clients, ce qui déclenche des intentions comportementales négatives envers l'entreprise lorsque les dons se terminent (par exemple, boycotter, acheter auprès de concurrents, répartir le WOM négatif). Au-delà de sa contribution théorique, cette recherche offre des aperçus de gestion sur la façon de concevoir un programme promotionnel qui peut éviter d'augmenter les droits des clients et d'empêcher les intentions comportementales négatives des clients lors de la résiliation.

Enfin, le troisième essai examine comment la solitude affecte les préférences des consommateurs pour les produits et services qui nécessitent ou non le contact interpersonnel et l'interaction (par exemple, obtenir un massage ou faire des achats en ligne). La sagesse commune pourrait suggérer que le sentiment de solitude inciterait les individus à chercher à



se reconnecter avec les autres, notamment en les touchant ou en les touchant. Cependant, je montre que les individus solitaires chroniques évitent les interactions interpersonnelles impliquant le toucher. Parce que la solitude chronique crée une boucle de rétroaction négative qui renforce la solitude, les participants solitaires signalent des niveaux inférieurs de confiance interpersonnelle et rapportent se sentir moins à l'aise de toucher et d'être touchés par les autres. Dans le domaine de la consommation, je montre que cet inconfort se répercute sur l'interaction en magasin avec les vendeurs et les autres clients. Mes conclusions fournissent des preuves qu'il existe des cas dans lesquels les investissements des marketeurs dans l'interaction client et les haptiques peuvent être injustifiés.

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## GENERAL INTRODUCTION

The Cambridge Dictionary defines aversive as: a) something is to be avoided or feared; b) an unpleasant stimulus intended to induce a change in behavior. Aversion and aversive stimuli have been widely studied in psychology especially in the field of behavioral change. In the 1970s and early 1980s, researchers investigate how they could change individuals' behavioral patterns by associating an aversive outcome with a behavior they wished to modify, or by associating a pleasant outcome with a behavior they wished to reinforce (i.e., behavioral modification therapy, operant conditioning theory). Building on the evidence gathered in psychology and psychotherapy that aversive stimuli influence human behavior, in this dissertation I focus on how aversive stimuli unconsciously change the behavior of consumers. Moving into the consumer behavior realm, this dissertation examines aversive stimuli that are commonly encountered in consumption contexts, such as unpleasant emotions and undesired outcomes, that prompt consumers to react. The present research shows that the way consumers react is mostly unconscious and often runs counter to what common knowledge would suggest, which makes it difficult for marketing practitioners to predict and act upon unless uncovered by research.

In the first essay, I examine how aversive emotional experiences can affect consumers' sense of self and prompt compensatory consumption. Marketing practitioners often use shocking images to scare consumers into complying with their advertisements' messages, a practice commonly referred to as "shockvertising". Shockvertising images often elicit feelings of physical and moral disgust, which in psychology, but not in consumer research, have been identified as two distinct emotions. Building on appraisal theory of emotions, I posit that different emotions lead to different cognitive appraisals of the emotional event, which in turn will elicit different behavioral responses. Specifically, I argue that physical disgust decreases consumers' sense of

power, which prompts them to act in a self-focused way to restore it (e.g., consume conspicuously). In contrast, moral disgust decreases consumers' feelings of belongingness, which prompts them to act prosocially (e.g., donate to charity) to restore it. The first essay thus aims to show that even if both typologies of disgust are aversive, they elicit qualitatively different unconscious consumer behavioral tendencies.

In the second essay, I analyze why consumers react negatively to the termination of unconditional business-to-consumer gift-giving initiatives. Common wisdom might suggest that after having received unconditional gifts from a firm (e.g., freebies), consumers would exhibit feelings of gratefulness and they would be more willing to reciprocate, or at least less willing to harm, the donor firm. However, I argue that the causal attributional inferences (i.e., why am I receiving these gifts?) consumers make when firms do something without providing an explanation will motivate their subsequent behaviors. When firms provide valuable unconditional gifts repeatedly and regularly, they prompt consumers to infer that they are special to the firm and that they deserve such gifts. Such customer value inferences trigger feelings of customer entitlement, which in turn causes customer negative behavioral intentions upon gift-giving termination. The second essay thus tests whether the termination of unconditional business-to-consumer gift-giving initiatives can be regarded as an unpleasant stimulus, rather than a neutral event, which induces an unexpected change in customers' behavior to counteract its aversiveness.

Finally, in the third essay, I address the important issue of consumers being increasingly lonely, and of how loneliness might change their perception of whether haptic interactions with other individuals or objects is considered aversive or pleasant. Common wisdom might suggest that when individuals feel lonely, being touched by another person would be perceived as a



pleasant form of social reconnection. Accordingly, many products and services involving touch are marketed today to cure what can be considered a modern-day loneliness epidemic (e.g., hug chairs, cuddle clinics). Moreover, research on touch in various fields, including consumer behavior, has shown that it fosters many positive outcomes such as increasing positive affect, increasing persuasion and compliance, increasing oxytocin (i.e., “the cuddle hormone”), and acting as a salient reminder of social inclusion. Therefore, it is logical to think that most everyone should welcome haptic experiences, and that marketers should strive to provide them. However, the loneliness literature provides mixed findings, reporting cases of lonely individuals either seeking and eschewing social reconnections. Consequently, we posit and test that when individuals are not seeking social reconnection, such as when they are chronically rather than situationally lonely, they will perceive interpersonal touch as being aversive rather than pleasant and therapeutic.

The three essays contribute to the literature on emotion, identity threats, and compensatory consumption, to the literature on sales promotion, and to the literature on loneliness. Moreover, the research findings inform marketing practice in the fields of advertising, sales promotions design, and consumer haptics. Finally, this research provides insights into consumer welfare by bringing attention to the unforeseen consequences of marketers’ actions that seek to benefit the consumers but instead generate compensatory behaviors to cope with their aversiveness.

## ESSAY ONE

# When Disgust Puts You Down: The Effect of Disgust Exposure on Consumers' Identity and Compensatory Consumption

### ABSTRACT

Consumers frequently encounter disgusting images and disgust has been shown to produce a variety of behavioral responses when used in the context of advertisements or public service announcements. Building on theories of emotional appraisal and decision-making, we examine how physical and moral disgust differentially affect consumers' identity and compensatory consumption. An internal meta-analysis of eight studies we conducted shows that feelings of disgust threaten different aspects of self-identity, which in turn trigger various forms of compensatory consumption. In particular, we hypothesize and find that physical disgust decreases consumers' sense of power, which prompts them to act in a self-focused way to restore it (e.g., consume conspicuously). In contrast, moral disgust decreases consumers' feelings of belongingness, which prompts them to act prosocially (e.g., donate to charity). Marketers often employ disgusting images to break through the advertising clutter or to scare consumers into doing something (i.e., shockvertising, fear appeals). Our findings suggest that they should closely evaluate which disgust stimuli to use and the specific subconscious and behavioral consequences such images elicit.

*Keywords:* Disgust, identity needs, emotion, compensatory consumption

*Fear is danger to your body, but disgust is danger to your soul.*

*-Diane Ackerman*

## INTRODUCTION

Consumers routinely face disgusting images, whether from product advertising (e.g., hygiene products), public service announcements (e.g., anti-smoking campaigns) or consumption experiences (e.g., dirty hotel rooms). The use of strong and shocking images is widespread in advertising practice, but almost all the evidence that is considered when evaluating its effectiveness is either anecdotal or related to grabbing consumers' attention. To break through the advertising clutter, marketers aim at shocking their audience into paying attention to their messages by using strong images that are at odds with societal norms (i.e., *shockvertising*; Dahl, Frankenberger, & Manchanda, 2003). This practice is so widespread that consumers often complain to the regulator authorities about the offensiveness of advertising messages. For example, in Europe only, according to the 2016 European Advertising Standards Alliance (EASA) report on trends in advertising complaints, complaints related to taste and decency represented of 37% of all complaints filed in 2016 (24,065 complaints)<sup>1</sup>. Also, as the graph in Figure 1 shows, taste and decency complaints continued to steadily increase since 2012, as relative to other types of complaints.

Even if shockvertising is widespread and increasingly used, its effectiveness has never been conclusively demonstrated empirically in the marketing literature, and scholars have called for the examination of possible moderating factors (Bushman & Lull, 2015; Huhmann & Limbu, 2016; Peters, Ruiter, & Kok, 2013; Witte & Allen, 2000). We think that one reason for a lack of

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<sup>1</sup> In 2016, EASA's network of European self-regulatory organizations (SROs) received and dealt with a total of 65,040 complaints related to 32,797 advertisements. <http://www.easa-alliance.org/products-services/publications/statistics>

conclusiveness is that effectiveness has often been measured in terms of attention-grabbing and social noise instead of in terms of elicited behavior (Brown, Bhadury, & Pope, 2010; Sabri, 2012).

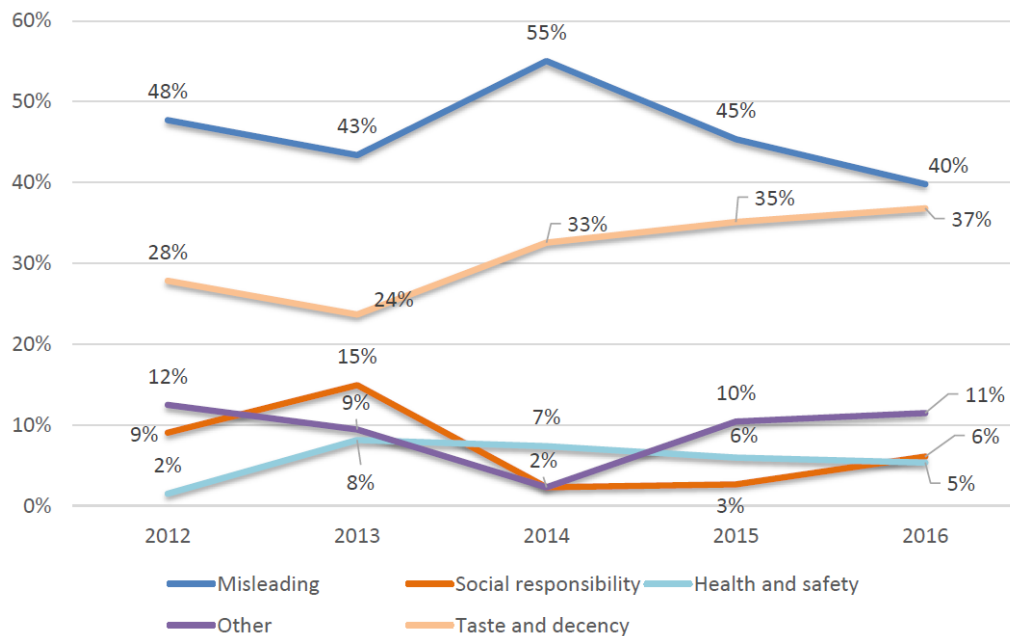


Figure 1-1. Issues complained about across Europe from 2012 to 2016. Data Source: EASA European SRO member statistics.

Moreover, different typologies of shocking elicitors were often considered to be homogenous, instead of being classified based on the specific emotion they elicited (e.g., disgust, moral outrage, fear; Dahl et al., 2003; Morales, Wu, & Fitzsimons, 2012). Finally, even when efforts were made to distinguish different emotions elicited and to measure actual behavior, the behavior being measured was compliance to the message itself, leaving other conscious or unconscious behaviors unexplored (Dahl et al., 2003; A. C. Morales et al., 2012; Scudder & Mills, 2009).

Overall, these shortcomings limit the understanding of the consequences that shocking images used in advertising messages have on consumers. To address this gap, we posit that it is important to: 1) distinguish between different emotions used in shockvertising and, in particular, between physical and moral disgust elicitors; and 2) explore all typologies of behavioral tendencies that can arise from exposure to strong images, not just message compliance, but also

unconscious behavioral responses that are triggered by image aversiveness.

Distinguishing between different elicitors is particularly important because disgust is often used to shock, and although consumer research has generally viewed disgust as a homogeneous emotion (Argo, Dahl, & Morales, 2006; Morales & Fitzsimons, 2007; Morales et al., 2012), psychological research has long viewed it as a heterogeneous emotion (Olatunji, 2008; Rozin, Haidt, & McCauley, 2008). Research has identified two typologies of disgust: physical disgust and moral disgust (Lee & Ellsworth, 2013; Marzillier, 2004). Physical disgust is elicited by stimuli that bring about fear of oral incorporation (e.g., bodily products, cockroaches), whereas moral disgust arises when individuals are faced with behaviors that are deemed to be socially or morally unacceptable (e.g., racism, incest). Given that distinct emotions have different effects on cognitions, motivations, and behaviors, it is likely that different types of disgust may produce distinctly different types of behavioral responses as well.

Additionally, considering all behavioral tendencies that shocking images produce will help clarify the impact that shockvertising has on consumers beyond mere attention-grabbing, memorability, and compliance. It is important to explore whether aversive images trigger unconscious behaviors and how this aversiveness threatens consumers' sense of self. There has been increasing evidence that emotions and sense of self are interrelated. For example, research has shown that who we are can define which emotions we are more (or less) attuned to (Coleman & Williams, 2013, 2015; Morales & Wu, 2012). If emotional events such as being exposed to shocking advertising are perceived as aversive and threatening to our sense of self, they will prompt unconscious compensatory behaviors. Therefore, the extent to which an advertisement will result in the desired consumer behavior will also depend on the threatened aspect of the self that is triggering the response. Our research tests this proposition and proposes a framework to

explain the underlying mechanism. We propose that feelings of disgust may threaten aspects of self-identity, which in turn trigger various forms of compensatory consumption.

## **THEORETICAL BACKGROUND**

### **Physical and moral disgust: different emotions, different behaviors**

Disgust is a particular emotion that has received significant attention in psychology, but surprisingly little attention in marketing and consumer research. Generally, disgust is defined as a feeling of revulsion or strong disapproval aroused by something unpleasant or offensive, and it is characterized by specific facial expressions (close nostrils, raised upper lip, gaping jaw), typical withdrawal behaviors (e.g., distancing from object eliciting disgust), and by certain physiological reactions (e.g., nausea). More specifically, disgust has been defined as “the body and soul emotion” (Rozin, Haidt, & McCauley, 2005; Rozin et al., 2008). Whereas an evolutionary account would define it as a basic emotion guarding the body against pathogens and toxins (e.g. avoidance of rotten foods), a more conceptual one would define it as a complex emotion that expanded to defend the self from figurative contamination as well (e.g., avoidance of death thoughts, social deviance).

Although disgust is often thought of as a homogenous construct, research has delineated different types of disgust. For example, Rozin and colleagues (2005) classify disgust along four categories: core disgust (e.g., rotten food, bodily products, cockroaches); animal-nature disgust (e.g., man with exposed intestines, person with poor personal hygiene); interpersonal disgust (e.g., direct or indirect contact with others that evokes strangeness, disease, misfortune); and moral disgust (e.g., moral offenses such as racism, murder). These different types of disgust have been shown to have distinct personality, behavioral, physiological, and clinical correlates (Olatunji, Haidt, McKay, & David, 2008). For example, in terms of personality traits, only

animal-nature and core disgust seem to influence neuroticism whereas all types lead to behavioral inhibition (i.e., tendency to experience distress and to withdraw from unfamiliar situations, people, or environments). Additionally, physiological reactions also differ by the type of disgust elicited. For instance, relative to the other types of disgust, core disgust is more related to physiological responding on videos depicting vomit, and animal-nature disgust is more related to physiological responding on videos depicting blood. Finally, sensitivity to one or another type of disgust correlates with unique clinical symptoms. As an illustration, animal-nature explained unique variance in blood-injection-injury (BII) phobia, whereas interpersonal disgust predicted symptoms of contamination-based OCD and fear of animals (Connolly, Olatunji, & Lohr, 2008). These findings form the basis of our proposition that different types of disgust may produce qualitatively different responses.

The issue of treating disgust as a homogenous emotion highlighted for consumer behavior in general, applies also to the usage of different disgust typologies in shockvertising. According to Dahl and colleagues (2003), there are several typologies of shock appeals that are defined by the type of elicitor used, namely: 1) disgusting images; 2) sexual references; 3) profanity/obscenity; 4) vulgarity; 5) impropriety, 6) moral offensiveness; 7) religious taboos. However, a more appropriate classification, based on the emotional response such elicitors produce, would be to group “disgusting images” with “vulgarity” as physical disgust elicitors and to group the remaining ones as moral disgust elicitors. Accordingly, this newly proposed distinction not only is aligned with the psychology literature findings, but also allows for a better investigation of the impact of shocking advertising on consumers’ behavior. This ability of better study the impact of shockvertising derives from the refined conceptualization of elicitors as similar (i.e., all shocking) but generating distinct emotions (i.e., physical versus moral disgust)

thus leading to different behavioral tendencies. Finally, it is important to note that shockvertising is not only used in fear-appeals and public service announcements, but it is increasingly being used in charity advertising as well as in consumer goods advertising spanning from hygiene and food products to hotel chains and luxury goods (see Figure 2, for more examples see Appendix A). Moreover, we find examples of physical and moral disgust being used indistinctly for all product categories and message typologies. Consequently, it is becoming extremely important to distinguish between physical and moral disgust elicitors in consumer behavior in general, and in advertising in particular.

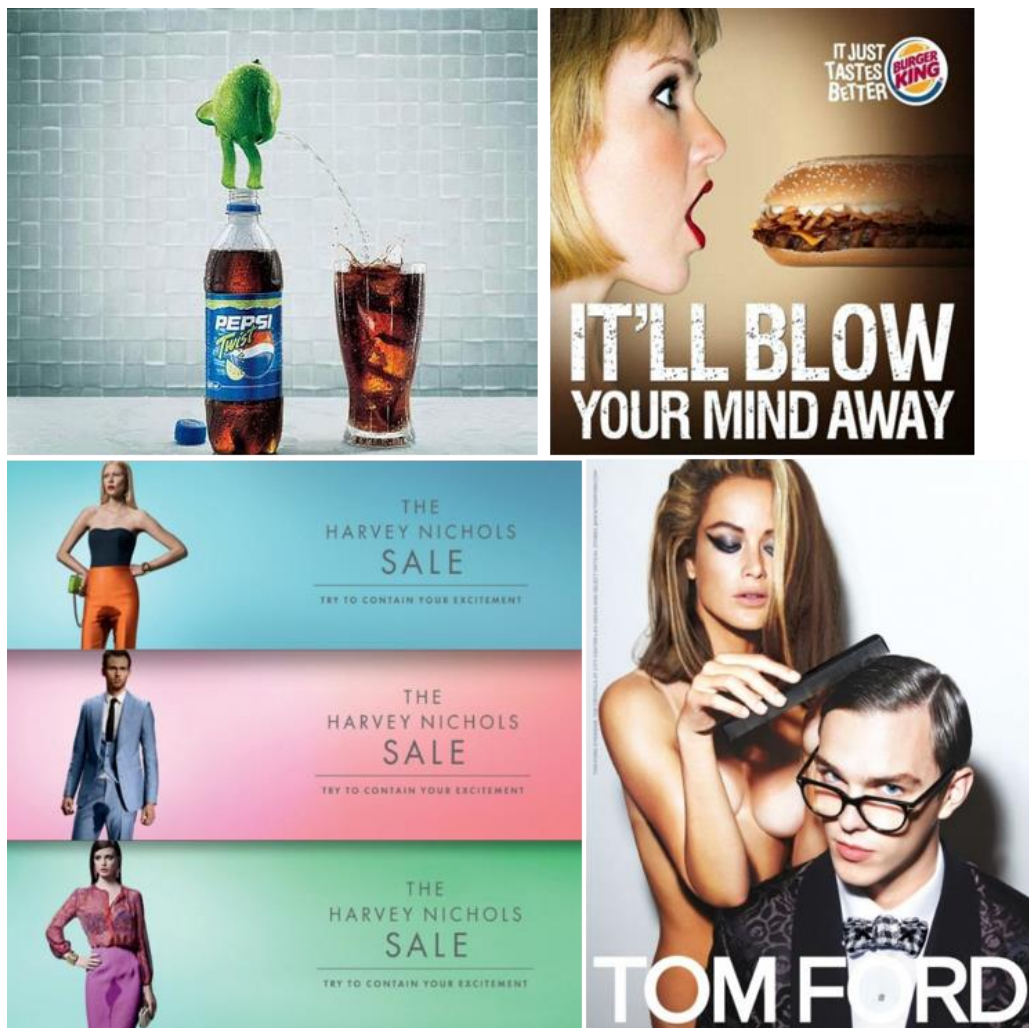


Figure 1-2. Examples of shockvertising eliciting physical and moral disgust in various consumer categories.



## Emotions, Self-threats, and Compensatory Consumption

The self is a complex construct. People hold self-views (self-identity) that, despite situational variations, are relatively stable over time. Moreover, people are motivated to maintain stable levels of these aspects of self-identity (identity motives; Vignoles, Regalia, Manzi, Gollledge, & Scabini, 2006), which include motives such as self-esteem, belongingness, control, and a meaningful existence (Williams, 2007). However, at times, certain situations or events can threaten these motives (e.g., poor performance, rejection by peers, being treated unfairly), and people generally react by attempting to bolster or repair the aspect of the self that is threatened. One way in which people may compensate for a particular threat is through consumption (termed *compensatory consumption*). For example, when feelings of power are threatened, people may respond by engaging in conspicuous consumption in an effort to restore their sense of power and control (Rucker & Galinsky, 2008). Recent research suggests that the responses to such self-threats depend on which needs are threatened (Lee & Shrum, 2012). For example, when relational needs are threatened (i.e., self-esteem, belongingness), people compensate by being more prosocial and affiliative (donate to charities, adjust product preferences to correspond to peers and partners). In contrast, when efficacy needs are threatened (i.e., power, meaningful existence), people compensate through conspicuous and status consumption.

Both emotion and self-identity have been widely studied by consumer researchers (Laros & Steenkamp, 2005; Reed II, Forehand, Puntoni, & Warlop, 2012), but with few exceptions (Coleman & Williams, 2013, 2015; So et al., 2015), little research has investigated the relations between them. However, there is reason to think there may be a link. A threat to identity can be defined as an experience appraised as potentially harmful to the value, meaning, or enactment of an identity (Lee & Shrum, 2013) and in a similar fashion, situational appraisals can be affected

by emotional experiences. In fact, situational appraisals can be shaped by emotional experiences corresponding to the specific cognitive appraisals that each emotion entails, and in case of aversive or threatening cognitions, they can signal danger to the sense of self.

The Appraisal-Tendency Framework (ATF; Lerner & Keltner, 2000) posits that emotions have distinct effects on judgment and decision making, and that specific emotions give rise to specific cognitive and motivational processes, which account for the effects of each emotion on the content and depth of subsequent thought. More specifically, emotions differ on cognitive appraisal dimensions such as certainty, pleasantness, attentional activity, control, anticipated effort, and responsibility (Smith & Ellsworth, 1985). Appraisal theory also posits that emotions give rise to implicit cognitive predispositions to appraise future events in line with the central appraisal patterns that characterize the felt emotion (emotion-to-cognition). For example, those who experience the emotion of fear may appraise the situation as uncertain (appraisal dimension), and thus will be less willing to take risks (behavior aligned with appraisal dimension). Emotion and cognition are inherently integrated, and together they shape the appraisal of a situation. These appraisals, regardless of their accuracy, influence people's appraisals of their ability to cope with events and their consequences (Scherer, 1988, 1999, 2005; Smith & Lazarus, 1990; Storbeck & Clore, 2007).

Regarding disgust-specific appraisals that serve as basis for our predictions, Lee and Ellsworth (2013) demonstrated that physical and moral disgust differ on several cognitive appraisal dimensions, with physical disgust resembling fear (e.g., avoid and comply), and moral disgust resembling anger (e.g., approach and punish). Drawing on fear's appraisal structure, we predict that physical disgust (but not moral disgust) will be associated with situational appraisals of low power and coping potential (Lerner & Keltner, 2001). In contrast, given the connection of

moral disgust with anger, we predict that moral disgust (but not physical disgust) will result in situational appraisals of low compatibility with moral standards (Roseman, Spindel, & Jose, 1990). The dimensions of coping potential and compatibility with standards are conceptually related to the self-identity motive of efficacy, which motivates individuals to maintain or enhance feelings of competence and control, and to the self-identity motive of relatedness, which drives individuals to maintain or enhance feelings of closeness to others (Vignoles, 2011). In fact, the appraisal of coping potential is defined as the ability of an individual to cope with an event, and it is related to various situational elements the individual evaluates (i.e., agent causing the event, motive of the agent, control, power, adjustment; (Scherer, 1999)). Among those, we find the one of control that is characterized as the degree to which the individual is able to control the event and its consequences, and the one of power, which is determined by the degree to which the individual is able to influence the emotion-eliciting event (Roseman et al., 1990; Smith & Ellsworth, 1985). According to the Appraisal-Tendency Framework predictions, we know that fear scores very low on appraisals of power (Lerner & Keltner, 2001; Scherer, 1988). Thus, we posit that when consumers experience feelings of physical disgust, they will appraise the situation in a similar way to when they are fearful, which will lead them to experience appraisals of low coping potential. Those appraisals will in turn threaten their need for power because people will cognitively assess that they are not in control, and that their coping potential towards the emotional event is low. Therefore, they will consume products that will help them restore their need for power, such as conspicuous or status-related products (Rucker & Galinsky, 2008, 2009).

**H1.** Consumers experiencing physical disgust will engage in power-restoring compensatory

consumption.

In contrast, when consumers experience feelings of moral disgust, they will appraise the situation similarly to when they are angry, which will lead them to experience appraisals of low compatibility with moral standards. These appraisals, regardless of their accuracy, might lead to misperceptions that others are offensive, and thus may induce feelings that one does not belong, negative emotional reactions when one is associated with others, and the desire to distance oneself from others (Chu, Buchman-Schmitt, Michaels, Ribeiro, & Joiner, 2013). According to evolutionary theory, the ability and desire to form social connections and to belong are the result of the processes of natural selection; desire for group membership serves the function of increasing chances for survival and reproductive suitability (Baumeister & Leary, 1995). When this need/ability is lacking, such as for those who feel disgusted with others, feelings of belongingness are diminished (Chu et al., 2013). Therefore, morally disgusted consumers will behave in a way that will help them restore their belongingness, such as donating to charity or engaging in helping behavior (Jonas et al., 2002; Lee & Shrum, 2012).

**H2.** Consumers experiencing moral disgust will engage in belongingness-restoring compensatory consumption.

A depiction of our conceptual model is presented in Figure 3.

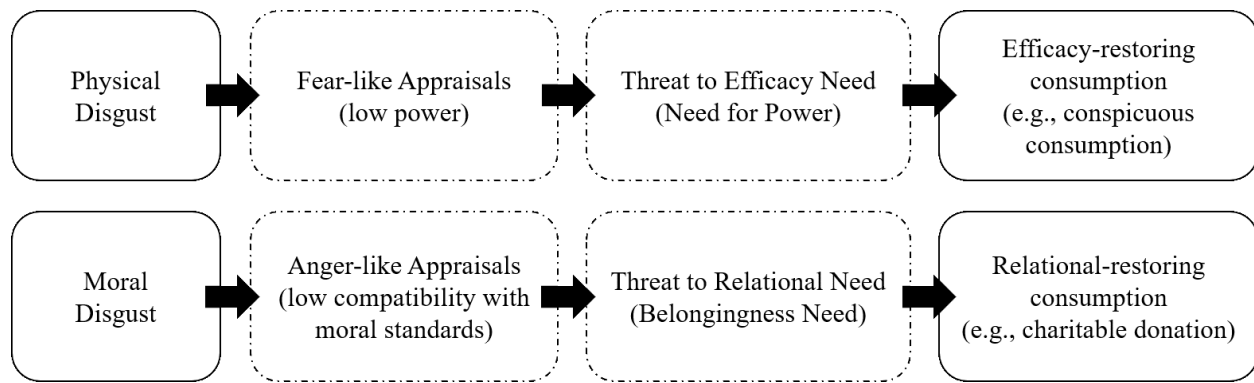


Figure 1-3. Conceptual Model.

## METHOD: SINGLE-PAPER META-ANALYSIS (SPM)

### Study Design

To test our hypotheses, we conducted a series of eight experiments using multiple manipulations and measures. The experimental design outline was the same for the eight studies. Participants were randomly assigned to review a series of stimuli (i.e., images or videos, IV) pretested to elicit either neutral feelings (control group) or feelings of physical or moral disgust (experimental groups). Subsequently, they reported how they felt while reviewing the stimuli (disgusted, morally outraged, sad, fearful, angry, etc.) or they responded to bogus questions regarding the stimuli (liking, novelty, etc.). Finally, participants completed an ostensibly unrelated study in which we measured the extent to which they compensated for their threatened need for power (via conspicuous or status consumption, DV PW) and belongingness (via helping behavior, DV BL).

### Overview and Participants

We tested the effect of physical and moral disgust on compensatory consumption in a series of  $k=8$  studies, with 1,248 participants in total (629 males, age  $M = 33.38$ ,  $SD = 12.84$ ). Of the eight studies, one was conducted in the lab of a U.S. university ( $n=184$ ) and seven were conducted online using either Amazon's Mechanical Turk, Qualtrics Panel or the university

participant online panel. Participants in all studies were from the U.S. (see Table 1 for study-specific details). In terms of gender composition between samples, there was no difference in percentage of female participants between Mturk (45% women) and Qualtrics Panel (51%). However, we had a smaller percentage of female participants in those online studies as compared to studies conducted in a university setting (61% women in the lab study, 61% women in the lab online panel study;  $\chi^2 = 20.78, p < .001$ ). In terms of age, participants were younger and more homogeneous in university settings ( $M_{\text{lab}} = 20.02, SD_{\text{lab}} = 1.33; M_{\text{unionline}} = 21.16, SD_{\text{unionline}} = 1.81; M_{\text{mturk}} = 36.07, SD_{\text{mturk}} = 11.09; M_{\text{qualtrics}} = 48.14, SD_{\text{qualtrics}} = 14.39; F(3,1243) = 260.46, p < .001$ ).

Study #	SAMPLE	IV	DV PW	DV BL	n	Male	Mean Age	Age SD
Study 1	Online - Mturk	IAPS-CJR	PW-WTP	BL-DD, BL-DL	80	36	37.19	10.93
Study 2	Online - Qualtrics	IAPS-CJR	PW-LL	BL-DD, BL-DL	107	52	48.14	14.39
Study 3	Online - Mturk	IAPS-CJW	PW-LL	BL-DD, BL-DL	150	94	35.36	11.07
Study 4	Online - Mturk	IAPS-CJR	PW-LL, PW-CC	BL-DD, BL-DL, BL-HB	248	135	35.81	11.61
Study 5	Online - Mturk	VID-CJR	PW-WTP	BL-DD, BL-DL, BL-HB	131	68	37.08	12.04
Study 6	Lab	VID-CJR	PW-WTP	BL-DD, BL-DL, BL-HB	184	72	20.02	1.33
Study 7	Online - Lab	VID-B	PW-WTP	BL-DD, BL-DL, BL-HB	114	45	21.16	1.81
Study 8	Online - Mturk	VIG-B	PW-LL	BL-DD, BL-DL	234	127	35.85	10.04

*Table 1-1.* Description of Study Characteristics. Independent Variables: IAPS – CJR = emotion elicitation with pictures followed by emotional rating self-report; IAPS – CJW = emotion elicitation with pictures followed by written emotional self-report; VID-CJR = emotion elicitation with videographic material followed by emotional rating self-report; VID-B = emotion elicitation with videographic material followed by bogus questions; VIG-B = emotion elicitation using written vignettes followed by bogus questions. Dependent Variables: DV PW = power compensation; PW-WTP = willingness to pay for status-related goods, PW-LL = preference for larger brand logo; PW – CC = preferences for conspicuous logos; DV BL = belongingness compensation; BL – DD = charitable donation dollar amount; BL – DL = charitable donation likelihood; BL – HB = likelihood to help others.

## Independent Variables

Literature on emotion induction highlights various methodological approaches to manipulate human emotional responses, such as using pictures, films, facial action tasks, dyadic interaction tasks, autobiographical memory recall, and so on (Coan & Allen, 2007). Emotion researchers often use stimuli from previous experiments that become standardized and are collected in specific repositories (e.g., Center for Emotion and Attention<sup>2</sup>, Swiss Center for

<sup>2</sup> <http://csea.phhp.ufl.edu/Media.html>

Affective Sciences<sup>3</sup>). However, one specific issue that we faced when we wanted to use standardized elicitation materials from past research repositories is that materials used to elicit disgust in the past were often meant to elicit only one specific typology, namely physical disgust. To overcome this problem, we often pre-tested existing materials (i.e., pictures) or we created our own (i.e., video clips, vignettes) so that we could reliably distinguish between feelings of physical and moral disgust.

In the present research, we elicited our target emotions using pictures, video clips, and written vignettes. An important variation that characterizes our manipulations is the extent to which participants were asked, or not, to reflect on their emotional experience (i.e., producing cognitive judgments; CJ). In fact, each stimulus was followed by either a cognitive evaluation of the emotional experience (e.g., “How does the image make you feel?”) or some bogus questions (e.g., “How informative do you think the content was?”). Previous literature suggests that there is a difference in brain (i.e., amygdala) activation levels where certain cognitive tasks (e.g., picture recognition; “have you seen this picture before?”) elicit low activation; making a cognitive judgment (e.g., rating or categorization; “how does this image make you feel?”) about the emotional content of the stimuli elicits moderate activation; and simple passive viewing elicits the most activation (Coan & Allen, 2007; Liberzon et al., 2000). Given that there is no consensus on which elicitation technique is clearly superior, and given that consumers are likely to be exposed to a variety of stimuli in real life, we decided to use different approaches throughout the eight experiments to maximize the ecological validity of our findings. We provide a general description of each manipulation in the next section.

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<sup>3</sup> <http://www.affective-sciences.org/home/research/materials-and-online-research/research-material/>

### *Emotion Elicitation with Pictures*

In three studies, we elicited our target emotions using a subset of images from the International Affective Picture System (IAPS; Lang, Bradley, & Cuthbert, 1999). The IAPS is a repository of photographs that serve as pre-tested, normative, emotional stimuli and they are available to researchers upon request. Together with the images, researchers are provided with a database containing ratings of arousal, valence, and dominance that have been collected for each individual photograph. According to the pleasure (or valence)–arousal–dominance (PAD or VAD) model of emotion classification, each emotional experience can be described using three dimensions: a) valence, defined as how positive/pleasant or negative/displeasing one feels an experience to be; b) arousal, defined as how energized or soporific one feels; and c) dominance, described as how controlling and dominant versus controlled or submissive one feels. The IAPS database contains ratings of these three descriptive dimensions for each individual image so that researchers can have some normative information about the stimuli they use.

However, given that the IAPS data does not distinguish which specific emotion is being elicited by which photograph, we first picked a set of images that we deemed disgusting and neutral only based on the content of the image itself. Afterward, we examined the ratings for each one, and we identified a subset of images that could be best suited to elicit feelings of physical disgust and moral disgust (e.g., high arousal, low valence, high dominance) together with images that could act as controls (e.g., low arousal, medium valence, low dominance).

Finally, we pre-tested 28 images<sup>4</sup> that fit our criteria and selected the final ones that we used in

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<sup>4</sup> We pretested a total of 28 images from the IAPS repository, namely IAPS # 1271, 1274, 2745, 3053, 3064, 3080, 3101, 3103, 3130, 3131, 3160, 3170, 3215, 4621, 7045, 7055, 7059, 7150, 7175, 7705, 9163, 9300, 9321, 9325, 9326, 9414, 9800, 9810. The pre-test was run on Amazon Mturk on a sample of 50 U.S. participants. After viewing each picture, participants rated on a 7-point scale (1 = not at all, 7 = very much) the extent to which they felt a specific emotion (i.e., disgusted, angry, fearful, powerful, sad, lonely, morally outraged, nauseated) while viewing it. We selected the images that best served the purpose of eliciting feelings of physical and moral disgust by calculating a success index based on standardized scores of emotional intensity and discreteness. Intensity scores are calculated



our experiments (see Appendix B). To elicit feelings of physical disgust, we used IAPS #1274, #9301, and #9321, whereas to elicit feelings of moral disgust, we adopted IAPS #6315, #9163, #9414, #9800, and #9810. As control stimuli, we employed IAPS #7045, #7055, #7059, #7150, #7175, and #7705.

Throughout the studies, we varied the subset of images that we used (from a set of three consecutive pictures with emotionally congruent contents in Study 1 to a single picture in Study 3), we varied the presentation style of the stimuli (consecutive pictures with emotionally congruent contents or non-consecutive pictures interspersed with neutral ones), and we varied the task that participants were asked to perform after viewing the stimuli by asking them to provide a cognitive judgment self-report about their emotional experience by either using a pre-determined rating scale (IAPS-CJR) or by producing a short written elaboration (IAPS-CJW). In Study 1, Study 2, and Study 4, as ostensibly part of a study about how people respond to pictures that represent different life events, participants were shown the target images and rated each on a 7-point scale (1 = not at all, 7 = very much) on the extent to which they felt particular emotions while viewing them (i.e., grossed out, disgusted, queasy, fearful, angry, mad, furious, morally outraged, sad, happy, amused, confused). In Study 3, after the stimulus presentation, participants were asked to briefly describe how the image made them feel. For more information about specific emotion induction procedures, please refer to Table 2.

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as mean report on the target emotions (i.e., disgusted, morally outraged, nauseated) relative to other candidate images. Discreteness refers to the degree to which participants report feeling the target emotion (i.e., morally outraged, nauseated) more intensely than all non-target emotions (e.g., angry, sad) and it is calculated percentage of participants who indicated that they had felt the target emotion at least one point more intensely than other non-targeted emotions. The success index was computed as the sum of the intensity z-score, derived by normalizing intensity scores for all comparison images, with each normalized discreteness value relative to all comparison images.

Emotion Elicitation Procedures			neutral	physical disgust	moral disgust
Study 1	IAPS-CJR	Three consecutive pictures with emotionally congruent target contents (neutral, physical disgust, moral disgust) followed by emotional self-report. See Appendix A.	IAPS # 7055, 7045, 7059	IAPS # 9301, 9321, 1274	IAPS # 9800, 9414, 9163
Study 2	IAPS-CJR	Two randomly selected neutral pictures followed by two pictures with target emotional contents (neutral, physical disgust, moral disgust) followed by emotional self-report. See Appendix A.	IAPS # 7055, 7045, 7059, 7150, 7175, 7705	IAPS #9301, 1274	IAPS # 9800, 9414
Study 3	IAPS-CJW	One picture with target emotional content (neutral, physical disgust, moral disgust) followed by written elaboration. See Appendix A.	IAPS # 7055	IAPS # 1274	IAPS # 9800
Study 4	IAPS-CJR	Two consecutive pictures with emotionally congruent target contents (neutral, physical disgust, moral disgust) followed by emotional self-report. See Appendix A.	IAPS # 7055, 7045, 7059, 7150, 7175, 7705	IAPS # 1274, 9301	IAPS # 6315, 9810
Study 5	VID-CJR	One 4-minute video with emotionally congruent target content (neutral, physical disgust, moral disgust)	Documentary on how pavers are made ( <a href="https://www.youtube.com/watch?v=58v0B6D8lvE&amp;feature=youtu.be">https://www.youtube.com/watch?v=58v0B6D8lvE&amp;feature=youtu.be</a> )	Woman having a parasite being removed from her body ( <a href="https://www.youtube.com/watch?v=xcjiv3o0dl8&amp;feature=youtu.be">https://www.youtube.com/watch?v=xcjiv3o0dl8&amp;feature=youtu.be</a> )	Journalist of color confronting a crowd of neo-Nazis in Germany ( <a href="https://www.youtube.com/watch?v=_MlpjuqhZCU&amp;feature=youtu.be">https://www.youtube.com/watch?v=_MlpjuqhZCU&amp;feature=youtu.be</a> )
Study 6	VID-CJR	One 4-minute video with emotionally congruent target content (neutral, physical disgust, moral disgust)			
Study 7	VID-B	One 4-minute video with emotionally congruent target content (neutral, physical disgust, moral disgust)			
Study 8	VIG-B	One written story with emotionally congruent target content (neutral, physical disgust, moral disgust). See Appendix B for full text.	Story of a doctor finding a piece of rotting bread between the fat folds of his obese patient.	Story of a dirty doctor raping terminal ill girls at the hospital.	Story about drinking coffee in Cuba.

*Table 1-2.* Summary of Emotion Elicitation Stimuli and Procedures. Independent Variables: IAPS – CJR = emotion elicitation with pictures followed by emotional rating self-report; IAPS – CJW = emotion elicitation with pictures followed by written emotional self-report; VID-CJR = emotion elicitation with videographic material followed by emotional rating self-report; VID-B = emotion elicitation with videographic material followed by bogus questions; VIG-B = emotion elicitation using written vignettes followed by bogus questions.

### *Emotion Elicitation with Videographic Material*

According to the emotion elicitation literature, using video clips is an effective and ecologically valid way to induce discrete emotional states (Gross & Levenson, 1995). In creating our stimuli, we used existing TV programs for which we identified scenes that would elicit our target emotions and subsequently edited them to be homogeneous and approximately 4-minutes long (Rottenberg, Ray, & Gross, 2007). We created and pre-tested 8 video clips<sup>5</sup> before we

<sup>5</sup> We selected 8 videos from YouTube, and after shortening them to 4 minutes to maximize the emotional elicitation, we then run a pretest on Amazon Mturk on a sample of 135 U.S. participants. Two documentary videos excerpts were meant to be neutral, one video described how Indian tapestries are made

selected the final three that we used in our experiments. We used a clip of a TV show on the story of a woman having a parasite being removed from her body to elicit feelings of physical disgust<sup>6</sup>, whereas we used a clip depicting a journalist of color confronting a crowd of neo-Nazis in Germany<sup>7</sup> to elicit feelings of moral disgust. For participants in the control condition, we used a video clip of a documentary on how pavers are made<sup>8</sup>. In Study 5 and Study 6, as ostensibly part of a study about how people respond to scenes they see on TV, participants were shown the target video clip and rated on a 7-point scale (1 = not at all, 7 = very much) the extent to which they felt particular emotions while watching it (i.e., grossed out, disgusted, queasy, fearful, angry, mad, furious, morally outraged, sad, happy, amused, confused). In Study 7, participants were also told they were taking part in a TV scene evaluation study but, after they watched the target video clip, they were asked to respond to a series of bogus questions<sup>9</sup> that did not require a cognitive judgment about their emotional experience.

### *Emotion Elicitation with Written Vignettes*

Another common method to elicit disgust, both with and without its moral component, is

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(<https://www.youtube.com/watch?v=11mPuvG-jkc&feature=youtu.be>) and one video described how pavers are made (<https://www.youtube.com/watch?v=58v0B6D8lvE&feature=youtu.be>). Three videos were meant to elicit feelings of physical disgust, one video was a documentary on food practices that many Westerners would deem “disgusting” (<https://vimeo.com/148216375>), another video showed gruesome surgery being performed on a victim of a motorcycle accident (<https://www.youtube.com/watch?v=dET2HF6BS0M&feature=youtu.be>), and a third video told the story of a woman having a parasite being removed from her body (<https://www.youtube.com/watch?v=xcjiv3o0dl8&feature=youtu.be>). Three videos were meant to elicit feelings of moral disgust, one video was about neo-Nazis’ violence in general (<https://www.youtube.com/watch?v=hW-U7jz7WAQ&feature=youtu.be>), another video depicted neo-Nazis verbally abusing a journalist of color (<https://www.youtube.com/watch?v=MIpjuqhZCU&feature=youtu.be>) and finally a video telling a story of a child abuse (<https://www.youtube.com/watch?v=pw7Gg8nJXVc&feature=youtu.be>). Participants watched one randomly selected video and rated on a 7-point scale (1 = not at all, 7 = very much) the extent to which they felt a specific emotion (i.e., disgusted, angry, fearful, powerful, sad, lonely, morally outraged, nauseated) while viewing it. As we did for the selection of printed images, we selected the videos that best served the purpose of eliciting feelings of physical and moral disgust by calculating a success index based on standardized scores of emotional intensity and discreteness.

<sup>6</sup> <https://www.youtube.com/watch?v=xcjiv3o0dl8&feature=youtu.be>

<sup>7</sup> <https://www.youtube.com/watch?v=MIpjuqhZCU&feature=youtu.be>

<sup>8</sup> <https://www.youtube.com/watch?v=58v0B6D8lvE&feature=youtu.be>

<sup>9</sup> Participants were asked the following: 1) “have you seen this TV scene before?”; 2) “how informative do you think the content of the video was?”; 3) “how likely is that you would recommend watching this video to a friend?”.

to have participants read short emotion-inducing stories (Antfolk, Karlsson, Bäckström, & Santtila, 2012; Horberg, Keltner, Oveis, & Cohen, 2009; Jones & Fitness, 2008; Schnall, Haidt, Clore, & Jordan, 2008). Given that we were not able to find vignettes that specifically discriminated between physical and moral disgust, we created and pretested nine short stories based on real-life events we read about in the news/online (See Appendix C).<sup>10</sup> We used a story of a doctor finding a piece of rotting bread between the fat folds of his obese patient to elicit feelings of physical disgust, whereas we used a story of a dirty doctor raping terminally ill girls at the hospital to elicit feelings of moral disgust. In the control condition, we had participants read a story about drinking coffee in Cuba. In Study 8, as ostensibly part of a study about how people respond to written material, participants were asked to read a randomly selected book excerpt and then to express their agreement or disagreement with a series of decoy statements about it: “I would definitely buy this book,” “I find this excerpt to be intriguing,” “The excerpt is well written,” and “I would be willing to read more about this.”

### **Dependent Variables**

We examined the impact of physical and moral disgust exposure on compensatory consumption with previously established measures. To investigate consumer compensation to a power threat we used willingness to pay for status-related products, preference for larger brand logos, and preference for conspicuous brand logos. To investigate consumer compensation to a belongingness threat we used willingness to donate to charity in terms of likelihood and dollar amount, and willingness to engage in helping behavior. We provide a general description of each

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<sup>1010</sup> We created 9 short stories based on real life disgusting events we read about in the news/online and we run a pretest in the lab on a sample of 292 U.S. students (see Appendix B). We asked participants to read a randomly selected story and to rate on a 7-point scale (1 = not at all, 7 = very much) the extent to which they felt a specific emotion (i.e., disgusted, angry, fearful, powerful, sad, lonely, morally outraged, nauseated) while reading it. As we did for images and video clips, we selected the stories that best served the purpose of eliciting feelings of physical and moral disgust by calculating a success index based on standardized scores of emotional intensity and discreteness.

dependent variable operationalization next.

### *Willingness to Pay for Status-Related Products*

In Study 1, 5, 6, and 7, our measured efficacy restoration was participants' stated willingness to pay for status-related products (Rucker & Galinsky, 2008). In Study 1, we showed participants five luxury products (i.e., fountain pen, wristwatch, leather briefcase, tie, fur coat) and asked them how much they would be willing to pay for them at this moment on a 12-point scale, from 1 = 10% of the retail price of the item to 12 = 120% of the retail price. In Studies 5, 6 and 7 we showed participants only a subset of those luxury products (i.e., fountain pen, wristwatch). The items were averaged to form a composite score ( $\alpha_{\text{study1}} = .77$ ,  $\alpha_{\text{study5}} = .73$ ,  $\alpha_{\text{study6}} = .51$ ,  $\alpha_{\text{study7}} = .56$ ), with higher values indicating a higher willingness to pay for status-related goods.

### *Preference for Larger Brand Logos*

In four studies (Studies 2, 3, 4, 8), our key measure of power compensation was the preference for a larger brand logo on a product that we adapted from Lee and Shrum (2012). We asked participants to consider a scenario in which Ralph Lauren was ready to launch a newly designed T-shirt, but before the launch, the company wanted to pilot-test consumer preferences. Participants were asked to imagine they were going to buy a new polo shirt at that moment. The operationalization of large versus small logos choice was slightly different throughout the studies (Appendix D). In Study 2, all participants were shown five images of a Ralph Lauren polo shirt with logos proportionally increasing in size from the first shirt to the last and they were asked to express their preferences on four items (choice, appeal, willingness to pay, attractiveness) on a 5-point scale, with each scale point representing a polo shirt ranging from "polo 1" to "polo 5". In studies 3, 4, and 8, participants were then shown two images of a Ralph Lauren polo shirt, one

with a prominent, visible logo and one with a small, less conspicuous logo. They expressed their preferences for the same four items from Study 2, but on a 9-point scale anchored at “1 definitely polo A” and “9 definitely polo B”. In all studies, the four items were averaged to form a composite score ( $\alpha_{\text{study2}}=.98$ ,  $\alpha_{\text{study3}}=.98$ ,  $\alpha_{\text{study4}}=.97$ ,  $\alpha_{\text{study8}}=.98$ ), with higher values indicating a greater preference for the conspicuous Ralph Lauren logo.

### *Conspicuous Consumption Scale*

In Study 4, we measured preferences for conspicuous consumption using the scale developed by Rucker and Galinsky, (2009). Specifically, we asked participants to imagine they were buying a piece of high-end clothing and then to indicate their preferences for conspicuous brand logos on a 9-point scale comprising four items, anchored by visible/nonvisible, big/small, noticeable/unnoticeable, and conspicuous/inconspicuous. The four items were averaged to form a composite score ( $\alpha=.89$ ), with higher values indicating a greater preference for conspicuous logos.

### *Charitable Donation: Likelihood and Amount*

In all eight studies, we used charitable donation intentions as a proxy for belongingness threat compensation. Participants read the following scenario:

*Imagine that while you are standing in the checkout lane at a grocery store,*

*you find the following donation campaign posted around the checkout lane.*

*"One in seven babies is born prematurely in the US. Prematurity is the leading cause of newborn death. Join us in the fight to give every baby a healthy start.*

*Donate Today!" If you were in this situation at this very moment, how likely would you be to make a donation?*

Next, we measured their likelihood to donate by asking them the following: “If you decide to

make a donation, how much money would you donate at this very moment?” (1=not at all likely; 9=very likely). Finally, we asked participants to indicate how much money they would have been willing to donate at that very moment (open-ended, dollar amount).

### *Helping Behavior*

In addition to charitable donation intentions, in Studies 4 to 7, we measured belongingness compensation as likelihood to help others in need. We adapted six hypothetical scenarios depicting opportunities to help others from DeWall, Baumeister, Gailliot, and Maner (2008) and we asked participants to express their likelihood to help on a 9-point scale (1 = not at all likely, 9 = very likely). The scenarios depicted opportunities to help others in various forms such as by giving money to a homeless person, donating money to a fund for children with terminal illnesses, offering a ride to an unknown neighbor whose car had broken down, giving directions to a lost stranger, allowing a stranger to use one’s cell phone, and giving food to a homeless person (Appendix E). The scores from the six scenarios were averaged to form a composite score ( $\alpha_{\text{study4}}=.76$ ,  $\alpha_{\text{study5}}=.67$ ,  $\alpha_{\text{study6}}=.52$ ,  $\alpha_{\text{study7}}=.53$ ), with higher values indicating a greater likelihood to help others.

### **Meta-Analytic Approach**

In the social sciences field there has been increasing consensus about the benefits of using meta-analytic approaches to enhance replicability, prevent sampling error, and reduce publication bias (Braver, Thoemmes, & Rosenthal, 2014; Cumming, 2014; Mcshane & Böckenholt, 2017, 2017; Schmidt & Hunter, 2014). For example, at the single-study level, sampling error is a random non-estimated event, whereas at the aggregate meta-analysis level, it can be estimated and corrected for. Additionally, meta-analysis allows researchers to use point estimates and confidence intervals instead of relying merely on significance testing and statistical

power.

A single study can rarely provide a reliable estimate of an effect, and the reliance on the myth of the “perfect study” has generated more harm than good. The current debate on the perils of significance testing in the social sciences highlights how pressure to publish increases scientific bias as researchers engage in selective reporting of significant studies and dismiss potentially true phenomena based only on a few unsuccessful attempts (Fanelli, 2010; Franco, Malhotra, & Simonovits, 2014; Gelman & Carlin, 2014; Gelman & Weakliem, 2007). Therefore, adopting meta-analytic thinking not only for multiple papers, but also within studies that appear in a single paper could help reduce harmful practices that hinder the cumulation and advancement of knowledge. Mcshane and Böckenholt (2017) summarize the advantages of using a single-paper meta-analysis (SPM) methodology: 1) increases statistical power and yields a more accurate effect estimate by pooling results via weighted averaging; 2) clarifies the nature of the effect when single studies generate conflicting results; 3) helps quantify the impact of study-level covariates or the degree of between-study variation (i.e., heterogeneity); 4) reduces the incidence of Type I and Type II errors; 5) informs theory because of its ability to decompose experimental effects (e.g., unaccounted-for moderators); 6) enhances replicability; 7) provides a concise and intuitive graphical summary of results (i.e., forest plot).

In line with these observations and with the current debate on the perils of data-selection bias in our field, we aimed at providing a conservative estimation based on the full data that we collected internally within our research project. We believe that our studies are best interpreted as a data point in a broader data set to be analyzed. A meta-analytical approach is advocated when researchers want to study a potentially small effect with multiple studies, because a very large sample size would be required for each single study to be significant. This view is



supported by our post-hoc power calculations that highlight the high number of participants we would need in our sample if we were to conduct a “single perfect experiment” with the recommended power level of 80% (see Table 3)<sup>11</sup>.

Study #	actual n	DV PW	$\eta^2$	effect size f	achieved power level	optimal n*	DV BL	$\eta^2$	effect size f	achieved power level	optimal n*
Study 1	80	PW-WTP	0.0140	0.12	0.14	682	BL-DD	0.0076	0.09	0.10	1,263
							BL-DL	0.0410	0.20	0.34	234
Study 2	107	PW-LL	0.0537	0.24	0.58	172	BL-DD	0.0452	0.22	0.50	207
							BL-DL	0.0150	0.12	0.19	636
Study 3	150	PW-LL	0.0167	0.13	0.27	570	BL-DD	0.0017	0.04	0.07	5,661
							BL-DL	0.0172	0.13	0.28	554
Study 4	248	PW-LL	0.0149	0.12	0.39	640	BL-DD	0.0212	0.15	0.53	448
							BL-DL	0.0130	0.11	0.34	734
		PW-CC	0.0052	0.07	0.16	1,846	BL-HB	0.0331	0.19	0.74	284
Study 5	131	PW-WTP	0.0381	0.20	0.51	246	BL-DD	0.0004	0.02	0.05	24,080
							BL-DL	0.0069	0.08	0.12	1,390
							BL-HB	0.0119	0.11	0.18	803
Study 6	184	PW-WTP	0.0014	0.04	0.07	6,875	BL-DD	0.0162	0.13	0.32	588
							BL-DL	0.0037	0.06	0.10	2,597
							BL-HB	0.0119	0.11	0.24	803
Study 7	114	PW-WTP	0.0275	0.17	0.33	344	BL-DD	0.0027	0.05	0.07	3,562
							BL-DL	0.0096	0.10	0.14	997
							BL-HB	0.0218	0.15	0.27	435
Study 8	234	PW-LL	0.0090	0.10	0.23	1,064	BL-DD	0.0014	0.04	0.08	6,875
							BL-DL	0.0156	0.13	0.38	611

\*sample size required to achieve a power of 80%

Table 1-3. Post Hoc Achieved Power and Optimal Sample Size Calculations. Dependent Variables: DV PW = power compensation; PW-WTP = willingness to pay for status-related goods, PW-LL = preference for larger brand logo; PW-CC = preferences for conspicuous logos; DV BL = belongingness compensation; BL-DD = charitable donation dollar amount; BL-DL = charitable donation likelihood; BL-HB = likelihood to help others.

In analyzing our results, we followed a random-effects meta-analytic model. A random-effects model, which is different from a fixed-effects model, is most appropriate when the aim of the meta-analysis is to generalize findings beyond the set of studies analyzed, and when researchers assume that there is no unique effect size, but that single-study effect sizes represent a random sample drawn from a distribution of effect sizes (Borenstein, Hedges, Higgins, &

<sup>11</sup> All power estimates are obtained with the software “G\*Power version 3.1.9.2,” freely available at <http://www.gpower.hhu.de/> (Faul, Erdfelder, Lang, & Buchner, 2007).

Rothstein, 2010; Tufanaru, Munn, Stephenson, & Aromataris, 2015). Given that we aim to generalize our findings beyond the set of studies we analyzed, and given that we used several operationalizations of both independent and dependent variables, we analyze our study-level effect sizes with a random-effects model.

We combined our studies using an inverse variance meta-analysis with Revman version 5.3, and we calculated the weighted standardized mean difference (SMD) between experimental and control groups together with its 95% confidence interval. We ran the analyses for both the power threat compensation effect of physical disgust exposure and for the belongingness threat compensation effect of moral disgust exposure. Specifically, for each individual study mean, the software computed an effect size (Cohen's  $d$  or SMD) by taking the mean differences on the dependent variables in each target experimental group (control vs. physical disgust, control vs. moral disgust) and dividing them by the pooled standardized difference (see equation 1). The differences were computed by subtracting the mean dependent variable score in the control condition from the same score in the experimental condition (physical disgust or moral disgust). Therefore, a negative effect size (negative SMD) means that participants in the physical and moral conditions engage in compensatory consumption more than those in the control condition and thus provides evidence for our hypothesized effect.

$$d (SMD) = \frac{\text{mean diff control group} - \text{mean diff experimental group}}{\text{pooled standard deviation}} \quad (1)$$

In addition to the effect size  $d$ , we provide three statistics that give additional information about our effects. First, we report the  $Z$ -value that allows us to determine whether our mean effect size is significant via null hypothesis testing. Second, we present the  $I^2$ , which measures the proportion of observed variance that reflects real differences in effect size (Borenstein, Hedges, Higgins, & Rothstein, 2009; Cooper, Hedges, & Valentine, 2009). The  $I^2$  index assesses

the level of heterogeneity among studies. If  $I^2$  is close to 0%, then the observed variance is mostly spurious, whereas if  $I^2$  is close to 100%, there is a need to investigate this variance further to understand its origin. If  $I^2$  is moderate (25%) to high (75%), the results of the individual studies should not be pooled (Higgins & Thompson, 2002). Third, we report  $\tau^2$ , which is the variance of the effect size parameters across the population of studies. Thus,  $\tau^2$  reflects the variance of the true effect sizes and as a measure of dispersion is often used together with  $I^2$  (Borenstein et al., 2009).

Finally, we provide a graphical representation of our results (i.e., forest plot). The forest plot graph is divided into two columns: the left-hand column lists the name of the studies and the right-hand column plots the effect estimates (SDM). In addition to displaying study names, the left-hand column can be organized in sub-groups to perform sub-group analyses. Subgroup analysis can be used to compare the overall estimated effect with the effect computed for only those studies that share some attributes (e.g., sample characteristics, study characteristics). In our case, we conducted two subgroups analyses: one for dependent variable operationalization (i.e., power threat operationalizations, and belongingness threat operationalizations) and one for independent variable operationalization (i.e., emotion elicitation typology).<sup>12</sup>

The right-end column also contains a chart listing the numerical values for means, standard deviations, and sample sizes of the experimental and control groups being compared within each study. In the forest plot, there are several graphical elements that help the reader interpret the numeric results at a glance: 1) green square boxes representing the effect size point estimates and the study weights (i.e., the bigger the box the bigger the weight); 2) horizontal

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<sup>12</sup> We did not conduct a sub-group analysis by sample characteristics because we thought that there is not enough variation to warrant one. In fact, only one study out of eight was conducted in the lab (versus online), and all studies had U.S. respondents.

lines representing the confidence intervals for the estimated effects; 3) a black diamond at the bottom representing the overall meta-analyzed measure of effect (and a similar but smaller black diamond at the bottom of each subgroup analysis); 4) a vertical line (y-axis) representing no effect, such that if the confidence intervals for individual studies overlap with this line, it indicates that at the given level of confidence, their effect sizes do not differ from no effect for the individual study (the same applies for the overall meta-analyzed measure of effect); 5) the horizontal distance (x-axis) of a box from the y-axis represents the standardized mean difference between experimental and control mean.

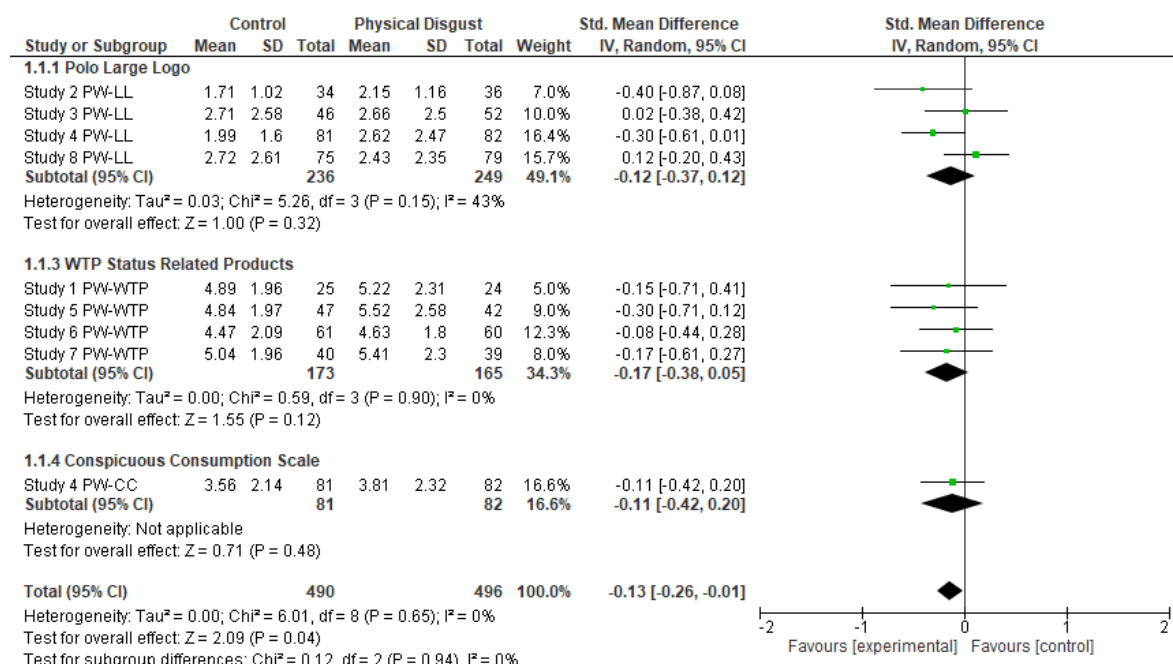
## RESULTS

### *Power Threat Compensation*

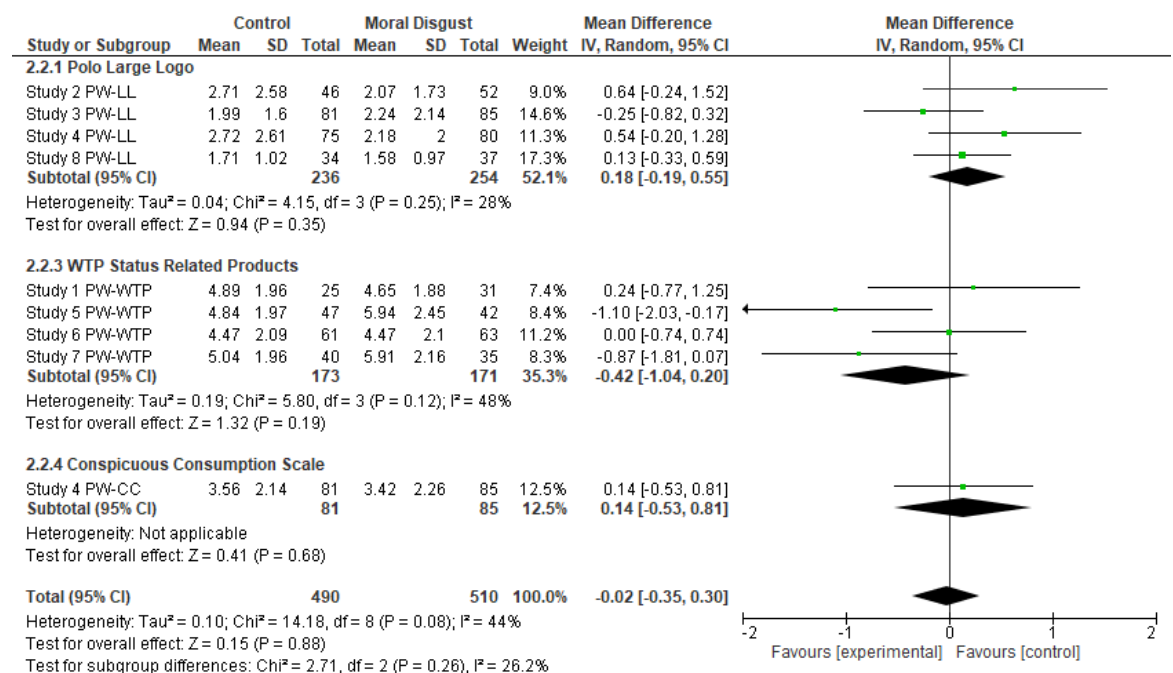
The averaged corrected standardized mean difference for the effect of physical disgust exposure on power threat compensatory consumption is  $d = -0.13$ , 95% CI  $[-0.26, -0.01]$ ,  $Z=2.09$ ,  $p<.04$ . In contrast, the averaged corrected standardized mean difference for the effect of moral disgust exposure on power threat compensatory consumption is not significant ( $d = -0.02$ , 95% CI  $[-0.35, 0.30]$ ,  $Z=0.15$ ,  $p=.88$ ). Thus, the results of the meta-analysis support our first hypothesis, and indicate that viewing physical disgust images increased conspicuous or status consumption relative to the control group, but viewing moral disgust images did not. Furthermore, when examining the result of our focal analysis (physical disgust vs. control), we find that the  $I^2$  statistics reveals minimal heterogeneity (0%), and the  $\tau^2$  statistics fail to reach significance, which jointly indicates that the studies provide a homogeneous test of the effect, indicating that the differences between individual studies are mainly due to sampling error and not to real differences in effect sizes.

The forest plots in Figure 4, Figure 6 and Figure 5, Figure 7 provide a graphical summary

of our meta-analysis calculations for the target comparison (i.e., physical disgust vs. control) and the non-target comparison (i.e., moral disgust vs. control). The graphs report the effect sizes and confidence intervals of the individual studies, the effect size of the overall effect, and the results of the subgroup analyses. In addition to the main meta-analysis, we conducted two post-hoc subgroups analyses: one for individual dependent variable operationalizations (displayed in Figure 4 and 5) and one for individual independent variable operationalizations (displayed in Figure 6 and 7). Specifically, for our target comparison, the subgroup analysis for the individuals operationalizations of power threat used (i.e., willingness to pay for status products, conspicuous consumption scale, and preference for larger brand logos) indicated no significant difference between the three subgroups ( $\chi^2 = 0.12$ ,  $df=2$ ,  $p=0.94$ ). Moreover, the second subgroup analysis for the individual independent variable operationalizations used to elicit emotions (i.e., pictures, videos, written vignettes) also indicated no significant difference between the three subgroups ( $\chi^2 = 2.85$ ,  $df=2$ ,  $p=0.24$ ). These results suggest that regardless of the operationalization used to measure the dependent variable and of the operationalization used to elicit physical disgust, the effect of physical disgust on power compensation is homogenous.



**Figure 1-4.** Forest plot of comparisons between the physical disgust and control conditions for individual operationalizations of power threat compensation. Dependent Variables: DV PW = power compensation; PW-WTP = willingness to pay for status-related goods, PW-LL = preference for larger brand logo; PW-CC = preferences for conspicuous logos; DV BL = belongingness compensation; BL-DD = charitable donation dollar amount; BL-DL = charitable donation likelihood; BL-HB = likelihood to help others.



**Figure 1-5.** Forest plot of comparisons between the moral disgust and control conditions for individual operationalizations of power threat compensation. Dependent Variables: DV PW = power compensation; PW-WTP = willingness to pay for status-related goods, PW-LL = preference for larger brand logo; PW-CC = preferences for conspicuous logos; DV BL = belongingness compensation; BL-DD = charitable donation dollar amount; BL-DL = charitable donation likelihood; BL-HB = likelihood to help others.

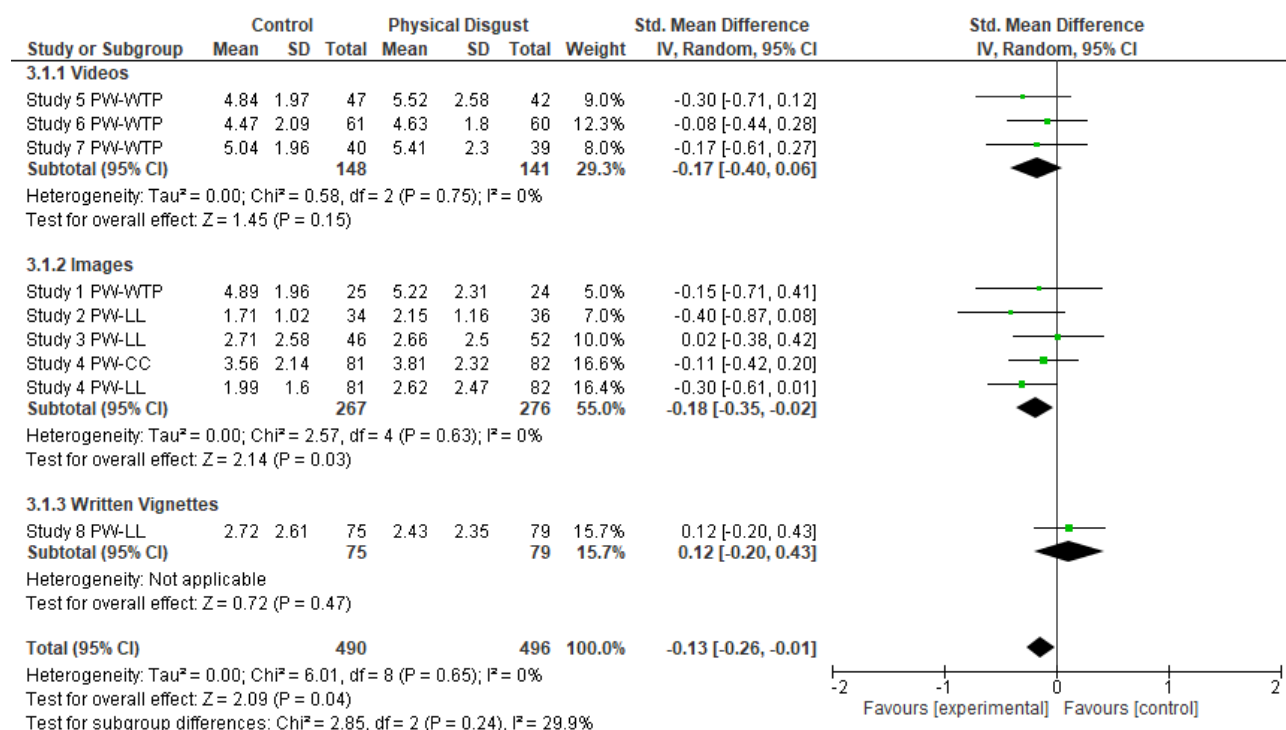


Figure 1-6. Forest plot of comparisons between the physical disgust and control conditions for individual operationalizations of the independent variable: emotion elicitation with Videos, Images or Written Vignettes.

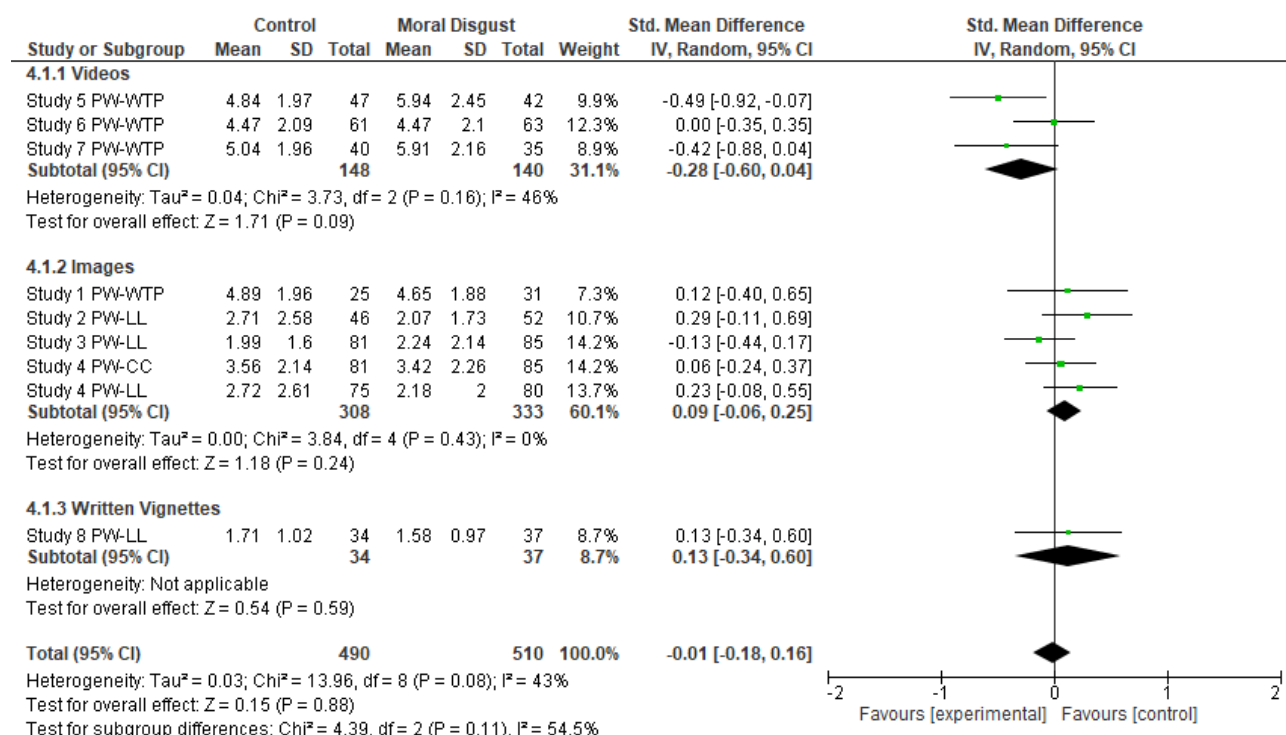


Figure 1-7. Forest plot of comparisons between the moral disgust and control conditions for individual operationalizations of the independent variable: emotion elicitation with Videos, Images or Written Vignettes.

### *Belongingness Threat Compensation*

The averaged corrected standardized mean difference for the effect of moral disgust exposure on belongingness threat compensatory consumption is  $d = -0.13$ , 95% *CI* [-0.21, -0.04],  $Z = 2.94$ ,  $p = 0.003$ . The forest plot in Figure 8 reports the effect sizes and confidence intervals of the individual studies, individual dependent variables and overall estimate. The results of our meta-analysis support our second hypothesis and indicate that viewing moral disgust images increased charitable or other-focused consumption relative to the control group, but viewing physical disgust images did not (see Figure 9). In fact, the averaged corrected standardized mean difference for the effect of physical disgust feelings on belongingness threat compensatory consumption is not significant ( $d = 0.03$ , 95% *CI* [-0.06, 0.12],  $Z = 0.59$ ,  $p = .55$ ). Furthermore, when examining the results of our hypothesis test (Figure 6), we see that the  $I^2$  statistic again reveals minimal heterogeneity (0%), and the  $\tau^2$  statistics fails to reach significance.

The forest plots in Figure 8, Figure 10, and Figure 9, Figure 11 provide a graphical summary of our meta-analysis calculations for the target comparison (i.e., moral disgust vs. control) and the non-target comparison (i.e., physical disgust vs. control) respectively. Again, we conducted two post-hoc subgroups analyses: one for individual dependent variable operationalizations (displayed in Figure 8 and 9) and one for individual independent variable operationalizations (displayed in Figure 10 and 11). For our target comparison, the subgroup analysis for the individuals operationalizations of belongingness threat used (i.e., helping behavior, donation amount, donation likelihood) indicated no significant difference between the three subgroups ( $\chi^2 = 0.69$ ,  $df = 2$ ,  $p = 0.71$ ). These results suggest that regardless of the operationalization used to measure the dependent variable and of the operationalization used to elicit moral disgust, the effect of moral disgust on belongingness compensation is homogenous.



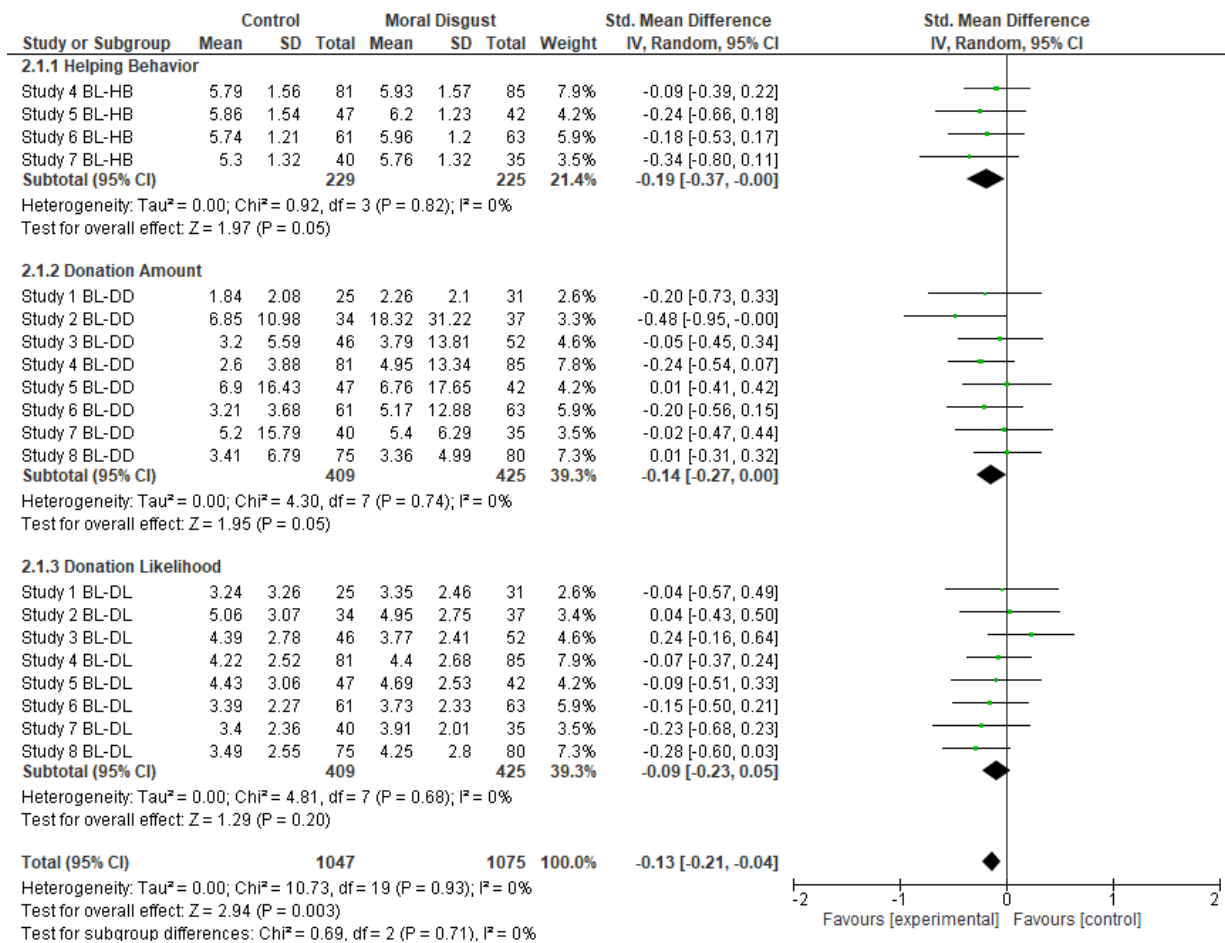


Figure 1-8. Forest plot of comparisons between the moral disgust and control conditions for individual operationalizations of belongingness threat compensation. Dependent Variables: DV BL = belongingness compensation; BL – DD = charitable donation dollar amount; BL – DL = charitable donation likelihood; BL – HB = likelihood to help others.

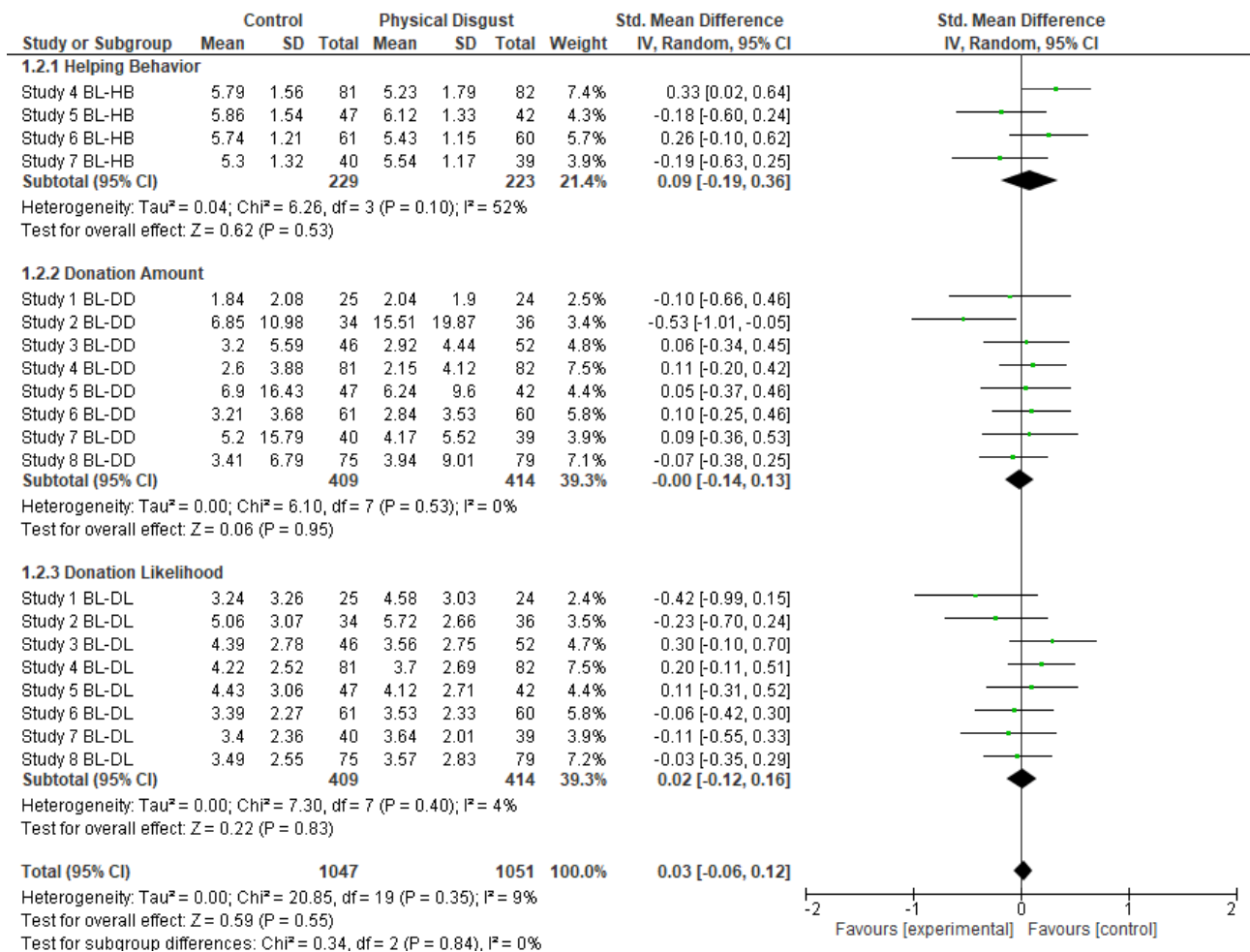


Figure 1-9. Forest plot of comparisons between the physical disgust and control conditions for individual operationalizations of belongingness threat compensation. Dependent Variables: DV BL = belongingness compensation; BL – DD = charitable donation dollar amount; BL – DL = charitable donation likelihood; BL – HB = likelihood to help others.

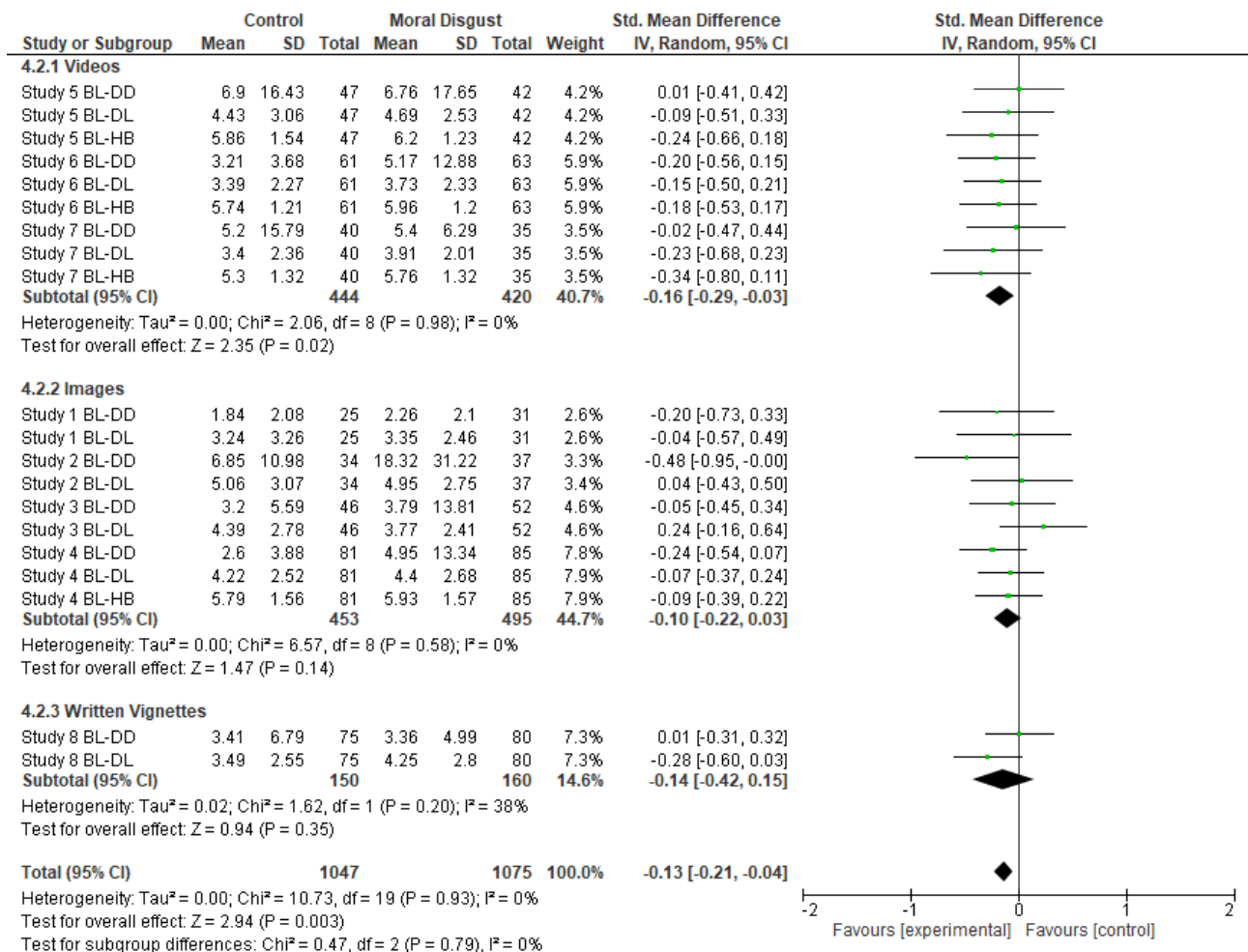


Figure 1-10. Forest plot of comparisons between the moral disgust and control conditions for individual operationalizations of the independent variable: emotion elicitation with Videos, Images or Written Vignettes.

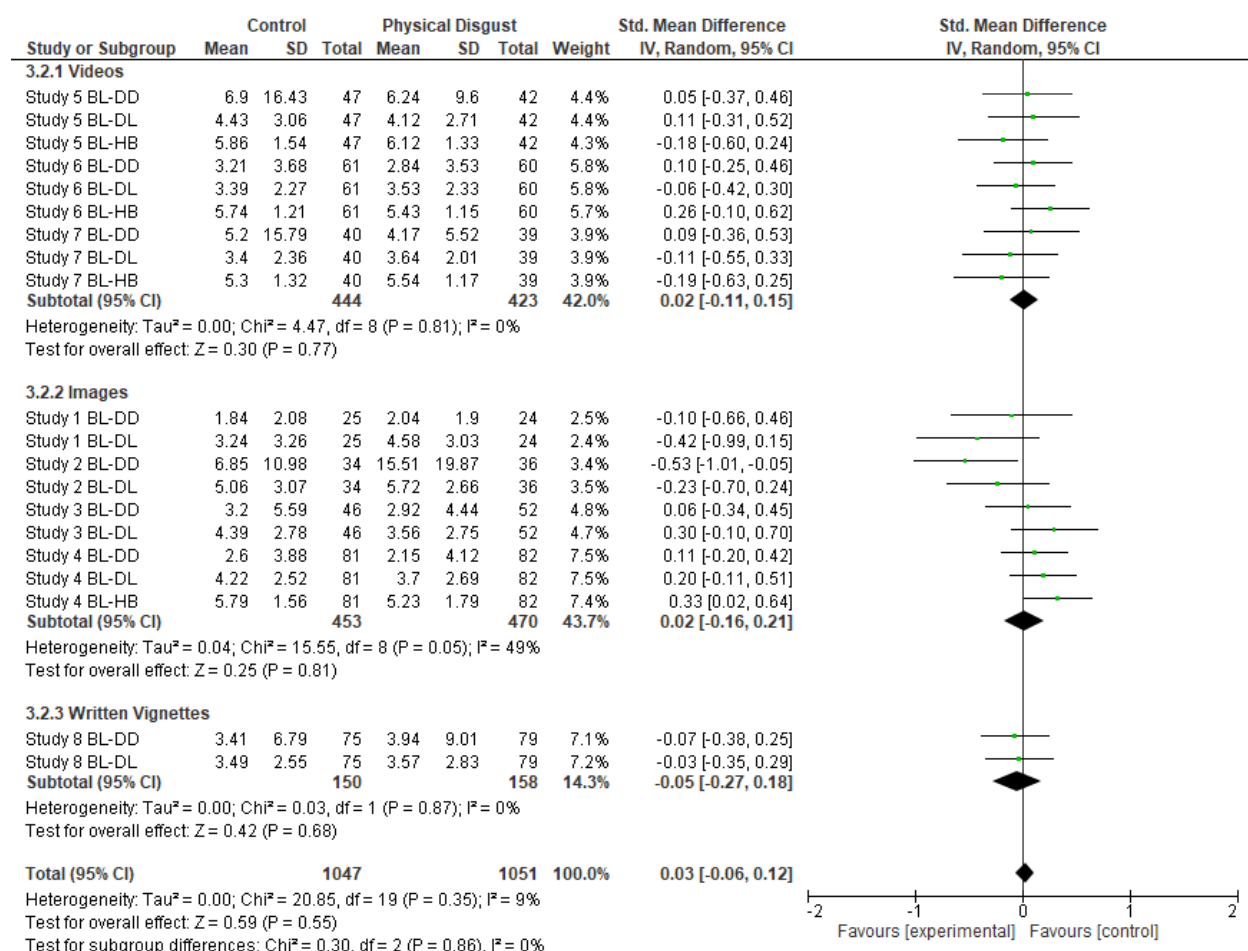


Figure 1-11. Forest plot of comparisons between the physical disgust and control conditions for individual operationalizations of the independent variable: emotion elicitation with Videos, Images or Written Vignettes.

## GENERAL DISCUSSION

Our findings suggest that exposure to physical disgust and moral disgust elicit different compensatory behaviors. Specifically, our results confirm that physical disgust exposure increases the tendency to engage in power threat compensation behaviors whereas moral disgust exposure increases the tendency to engage in belongingness threat compensation behaviors. Our meta-analytic approach also indicates that these results are stable across a variety of emotion elicitation techniques (i.e., images, videos, written vignettes) and across a variety of dependent variable operationalizations for both power (i.e., willingness to pay for status-related products, conspicuous consumption scale, preference for larger brand logos) and belongingness (i.e.,

helping behavior, charitable donation likelihood and amount) compensation.

### **Theoretical Contributions**

This research makes several theoretical contributions. First, it adds to research in consumer behavior by distinguishing between physical and moral disgust elicitors. Although psychology research highlighted this distinction long ago, consumer behavior researchers have not explicitly accounted for it in studies examining the effects of disgust in consumption settings (Argo et al., 2006; Morales & Fitzsimons, 2007; Morales et al., 2012). Furthermore, we show that this distinction is fundamental and should be taken into consideration when researching the effects of shockadvertising on consumers' reaction. Previous research on shockvertising in general (Bushman & Lull, 2015; Dahl et al., 2003), and on shockvertising of fashion brands or charity organizations in particular (Andersson, Hedelin, Nilsson, & Welanders, 2004; Cockrill & Parsonage, 2016), failed to account for the different emotional elicitors used and often resorted to classification of stimuli as shocking or violent without accounting for the specific emotional content. We provided various real-world examples (Figure 2 and appendix A) to show that shocking advertisements use physical and moral disgust elicitor indiscriminately, and we provided empirical evidence that this difference matters.

Second, we explored the behavioral consequences of using shocking images per se and beyond message compliance. By building our theorizing on the appraisal theory framework of emotions and on compensatory consumption theory, we were able to examine unconscious behavioral reactions to physically or morally disgusting images. In particular, we proposed and tested that moral and physical disgust elicit compensatory consumption behaviors that are consistent with self-threats in the power and belongingness domain. We believe that this is an important first step in the examination of how situational appraisals can be shaped by emotional

experiences and signal danger to the sense of self.

### **Managerial Implications**

Commonly, marketers employ strong images to scare consumers or to break through the advertising clutter; this research provides new insights into the specific subconscious consequences such images entail. Our research would suggest that marketers should carefully choose the emotional content of their shockvertising attempts. Both charity organizations and luxury brands sometimes use images that have elements of physical or moral disgust (see Appendix A). Our research shows that if prosocial behavioral responses are sought (e.g., money donation, volunteer work), such images should focus on eliciting feelings of moral disgust. However, if more self-focused responses are sought (e.g., status or conspicuous consumption), physically disgusting stimuli should be preferred. That said, we are not advocating for a disproportionate usage of disgusting images in advertising, because there might be other effects that are not studied within the present research. Our investigation focused on understanding unconscious behavioral reactions to physically and morally disgusting images, but left unexplored the issue of whether the use of these stimuli might be detrimental to brand image (Andersson et al., 2004; Parry, Jones, Stern, & Robinson, 2013).

### **Limitations and Further Research**

There are a number of limitations of this research that provide direction for future investigation. Although this research makes a significant contribution in showing that exposure to emotional content in advertising prompts unconscious compensatory behavior responses, we did not test for the underlying process directly. In future studies, we plan to test the underlying process by either measuring or manipulating the hypothesized self-threats (power, belongingness). If bolstering the sense of power or of belongingness eliminates the effect that we found with our

meta-analysis, we can provide additional evidence that our conceptual framework holds true.

The use of a meta-analytic approach to analyze our data also allows us to reflect on which emotion elicitation techniques and which dependent variable operationalizations could maximize the effect. In fact, when testing our hypotheses, we also ran some subgroup analyses that could inform our future attempts. For example, when testing for the effect of physical disgust exposure on power compensatory consumption (hypothesis one), subgroup analyses indicated that picture elicitation and willingness to pay for status-related products might work best. On the other hand, when testing for the effect of moral disgust exposure on belongingness compensatory consumption (hypothesis two), subgroup analyses indicated that video elicitation and helping behavior scenarios might work best. The difference in the effectiveness of the emotion elicitation manipulation might be due to the fact that moral disgust is a fairly complex emotion and that videographic elicitation best conveys the moral violation of norms. In contrast, physical disgust is a simple primordial emotion and images might elicit it better because they have an immediate effect. In this case, we could try and shorten the videos so that the physical disgust elicitation is stronger, or we could add copy to the images to strengthen the effect of the moral violation. Once we maximize the measurement of our main effect, we plan to examine whether making the donation behavior conspicuous, or adding a charitable element to a luxury purchase, will moderate the effect of type of disgust on the behavioral responses.

Finally, beyond our specific research project, future research could explore if certain cognitive appraisals, associated with emotions other than disgust, could have a positive effect on the sense of self. For example, if anger is associated with cognitive appraisals of high power and high coping potential, experiencing this emotion could potentially act as a buffer against threats to personal power. Alternatively, researchers could focus on the link between appraisals and

contextual factors and study unconscious behavioral tendencies other than compensatory consumption. For example, if anger is associated with behavioral tendencies of action-readiness, when consumer experience this emotion while shopping, they may be more likely to engage in impulse buying.



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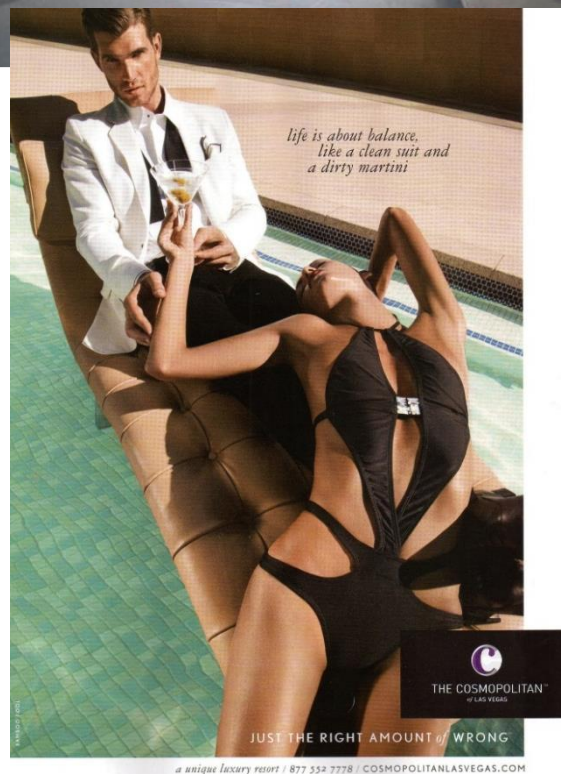
## APPENDIX

### Appendix A. Examples of physically and morally disgusting advertisement.

#### Charity Advertisements



### Luxury Products (Cars and Hotels)





## Hygiene Products



## Appendix B. IAPS Images Used in Studies 1 to 4.

### Physical Disgust Pictures



IAPS#1274



IAPS#9301



IAPS#9321

### Moral Disgust Pictures



IAPS#6315



IAPS#9163



IAPS#9414



IAPS#9800



IAPS#9810

### Neutral Pictures



IAPS#7045



IAPS#7055



IAPS#7059



IAPS#7150



IAPS#7175



IAPS#7705

**Appendix C. Written Vignettes Pretested for and Used in Study 8 (Main Study Vignettes in Bold).**

<b>PHYSICAL DISGUST STORIES</b>	
Story 1	<p><b>SELECTED STORY: MISSING PIECE</b></p> <p>A super obese (that's an actual medical term) woman comes to the clinic complaining of a foul odor that she's noticed. And yeah, me and the attending noticed it too - a smell somewhere between rancid milk mixed with rotting fish and a disemboweled skunk swimming in garbage. We do the usual workup: take a good history, do a thorough physical (as best we can given she is huge and has folds and folds of fat and skin draped all over her) including rectal/genital exam just in case there was some funky "down there" growth, and run some simple labs. As me and the attending are discussing how we have no clue what is going on, the nurse comes out holding a green, soggy mush in her gloved hands and waves it in front of our faces (I nearly puked right there). Turns out the woman was using pieces of bread to soak up sweat by putting them in between her fat folds. Apparently, she forgot about one of the pieces, which then stayed there to marinate in her juices for weeks (as estimated by the patient). I was sent in</p>

	<p>to see if there were any more hidden pieces; luckily there wasn't, but having to lift up and search every fat fold was as embarrassing for her as it was terrible for me.</p>
Story 2	<p>SELECTED STORY: NURSE AID FOR BEGINNERS</p> <p>I used to be a nurses aid. I once had to put a very obese woman on the bedpan (she was only mid 40's) and I left. She put her call light on and when I answered she said she was all done. I turn her on her side to remove the bedpan only to see that it is empty. My first thought was that she had been mistaken about having pooped. But then I look and realize that her ass cheeks were so massive her entire dump couldn't make it the length of her cheeks and had gotten wedged in between them. I had to dig the entire load out of her as by hand. It was only about two months into the job and it gave me some serious second thoughts.</p>
Story 3	<p>SELECTED STORY: HAPPY ENDING</p> <p>A couple from suburban California were vacationing in Jamaica when their room was broken into and everything stolen, with the exception of their camera and their toothbrushes. Considering themselves fortunate to have retained the camera with their vacation photos, they returned home where they had the film developed.</p> <p>Two pictures were unidentifiable — something like an aerial view of two mounds of dark earth with a pole in between. They later realized, to their horror, that it was a photo of their toothbrushes up someone's rear end.</p>
<b>MORAL DISGUST STORIES</b>	

Story 1	<p><b>SELECTED STORY: DIRTY DOCTOR</b></p> <p><b>Probation officer for violent sex offenders here. I've got a few I could add to this but this one sticks with me as the 'worst.' A doctor in the children's department at a very popular hospital was raping the pre-teen terminally ill girls during the night shift. This went on a couple times a month for years before he was finally caught. One of the girls lived longer than the doctors expected and complained of 'pains.' During an inspection, they discovered the rape and posted cameras which eventually caught him. He ended up getting probation because he A: could afford great lawyers who got him in front of a sympathetic judge; and B: most of his victims were dead. He'd up the pain meds before the act so that there would be less resistance. The court never knew the extent of his deviance, but after I finally got his polygraphs back we learned the full story. He eventually died in custody after we got him on a violation.</b></p>
Story 2	<p><b>SELECTED STORY: AN ODE TO VIOLENCE</b></p> <p>All I can think about is that boy's skull, bashed in, the way his head was caved in and how it wasn't like a head at all, just like a broken silly puppet face, about how when you destroy something, when you brutalise it, it always looks warped and disfigured and slightly unreal and unhuman and that's what makes it easier for you to go on brutalising it, go on fucking it and hurting it and mashing until you've destroyed it completely, proving that destruction is natural in the human spirit, that nature has devices to enable us to destroy, to make it easier for us; a way of making righteous people who want to act do</p>



	<p>things without the fear of consequence, a way of making us less than human, as we break the laws.</p>
Story 3	<p><b>SELECTED STORY: SHOE SHINE INCIDENT</b></p> <p>I was standing with my father on a train platform in Lao Cai, a city on the Vietnamese/Chinese border. Next to us, an Australian woman was trying to negotiate down the price of a shoe-shine with a local boot-black, a boy perhaps eight years of age. The boy pointed out the obvious: his asking price of 500 đồng (about 3¢ US at the time) was rock bottom, not by his own policy but by the fact that the Vietnamese government did not print any bill smaller than the 500. That only stymied the Australian for only a moment. “Shine my shoes and his,” she insisted, indicating at me — a person she had never seen before in her life, but, by virtue of my white face, apparently more worthy of her largess than this starving child. I indicated that my shoes — which were plastic sandals of the sort Americans call “flip-flops” and Australians call “thongs” — could not be shined, so the woman moved on to the only other Westerner on the platform and forced this poor kid to clean my father’s suede athletic shoes as well as her expensive pumps.</p>
<b>CONTROL STORIES</b>	
Story 1	<p><b>SELECTED STORY: DIVINE BLOOMS</b></p> <p>The landscape was every vivid color, every one of them as fresh as a new painting straight from Rome. The brilliant greens banished every dark thought and the sky lifted the eye in a way that brought the villagers to admire the</p>

	<p>strands of drifting white cloud. The trees were deep with late spring foliage and the flowers rioted in the jubilant way that only the most divine of blooms can.</p>
Story 2	<p><b>SELECTED STORY: HANDSOME MAN</b></p> <p>He had the kind of face that stopped you in your tracks. I guess he must get used to that, the sudden pause in a person's natural expression when they looked his way followed by overcompensating with a nonchalant gaze and a weak smile. Of course the blush that accompanied it was a dead give-away. It didn't help that he was so modest with it, it made the girls fall for him all the more. Despite all the opportunity that came his way he was a one-woman-man who prized genuineness and thoughtful conversation above lipstick and high-heels. He was handsome alright, but inside he was beautiful.</p>
Story 3	<p><b>SELECTED STORY: COFFEE IN CUBA</b></p> <p><b>Coffee just didn't taste the same anymore, ever since Cuba. He had gone to get his regular, a large cup of black joe with one packet of sugar, at the corner coffee shop. He had taken one sip of this so called "coffee" it tasted more like boiled water with dirt. Coffee in Havana tasted like summer and all the things that came along with it like: sunshine, cigars, and Medianoche at midnight at the hottest clubs. Now this dirt water sat in his hand even more useless now that it was warm, not piping hot which he'd grown accustomed to. He gave up on this "coffee" tossing the rest of it into a nearby garbage can.</b></p>

## Appendix D. Preference for Larger Brand Logos Dependent Variable

Ralph Lauren is ready to launch a newly designed polo shirt as shown in the pictures below. Before Ralph Lauren launches the polo onto the consumer market, the company would like to pilot-test consumers' preferences.

Imagine that you are going to buy one of these newly designed Polo Shirts right now, and have a choice between the following five options.



	Polo 1	Polo 2	Polo 3	Polo 4	Polo 5
Which one would you choose right now?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Which one is the most appealing to you right now?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Which one would you spend more on right now?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Which one is the most attractive to you right now?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ralph Lauren is ready to launch a newly designed polo shirt as shown in the pictures below. Before Ralph Lauren launches the polo into consumer market, the company would like to pilot-test consumers' preferences.

Imagine that you are going to buy one of these newly designed Polo Shirts right now, and have a choice between the following two options.



	Definitely Polo A 1	2	3	4	5	6	7	8	Definitely Polo B 9
Which one would you choose right now?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Which one is the most appealing to you right now?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## **Appendix E. Helping Behavior Scenarios**

1. Imagine that you are driving down the highway. You notice a person walking along the highway whose car has broken down. As you pass by, you realize that the person is from your neighborhood. If you were in this situation at this very moment, how likely would you pull over and offer a ride to this person?
2. Imagine that you are walking home. You see a car pass by slowly. The driver then rolls down the window and asks some people next to you where the post office is. The people don't know where the post office is, but you do know. If you were in this situation at this very moment, how likely would you be to let the person know that you know how to get to the post office and then tell the person how to get there?
3. Imagine that you are sitting in a cafe. The person next to you realizes that s/he forgot her/his wallet at home. If s/he calls a friend to bring the wallet, s/he can have a coffee. Imagine that you have a cell phone on you. If you were in this situation at this very moment, how likely would you be to tell the person that s/he can use your phone?
4. Imagine that you are walking down the street in downtown. A homeless person approaches you and asks for some change. If you were in this situation at this very moment, how likely would you be to give some money to this person?
5. Imagine that you are buying some items at a retail store. In the checkout lane there is a jar for money donations to help out children with terminal illnesses. If you were in this situation at this very moment, how likely would you be to put some money in the jar?
6. Imagine that you have just picked up some food from a restaurant to take home and eat. Walking outside of the restaurant, a homeless person asks you for some money to buy food. You realize that you could give them some of your food. If you were in this

situation at this very moment, how likely would you be to offer some of your food to the person?

## ESSAY TWO

# Spoiled Rotten: Unconditional Business-to-Consumer Gift-Giving and Customer Negative Behavioral Intentions

### ABSTRACT

This research examines customers' negative behavioral intentions towards firms that stop giving them unconditional gifts. Although it might be argued that this is a simple case of expectation disconfirmation, building on attribution theory we theorize and empirically demonstrate that a less obvious mechanism is at play. We find that when firms offer valuable unconditional gifts repeatedly and regularly, customers develop a sense of entitlement that overshadows their feelings of gratitude to the firm. Specifically, when business-to-consumer unconditional gift-giving initiatives are terminated, customers exhibit negative behavioral intentions towards firms that spoiled them in the past because of their heightened sense of entitlement. Moreover, we provide evidence that by boosting customers' gratitude and by changing the framing of the recipient selection criteria, this effect can be attenuated. We discuss theoretical and practical implications of this work for the design of business-to-consumer unconditional gifting initiatives.

*Keywords:* Business-to-consumer gift-giving, business gifts, sales promotions, customer entitlement, customer gratitude, customer negative behavioral intentions

*When loyalty programs are discontinued, I feel as if I lost something. [...] I'm feeling frustration*

*here and yet the practical side of me says that I shouldn't get upset about losing something that was a "freebie" in the first place.*

— Syd Bolton, *Brantford Expositor Opinion Column*

## **INTRODUCTION**

Unconditional business-to-consumer (B2C) gifts are defined as business gifts that firms offer to their customers regardless of whether they expended effort to gain them (Beltramini, 1992, 2000; Bodur & Grohmann, 2005; Otnes & Beltramini, 1996). In other words, they are spontaneous gifts that firms offer to their customers unconditionally, meaning without firms stating pre-determined eligibility criteria or explicit reciprocation request (e.g., “here is a free dessert with your dinner” versus “get a free dessert for every order over 50\$” or “get a free dessert if you place three orders within two months”). It is not uncommon for firms to offer tokens of appreciation to their customers even if they don't subscribe to a specific loyalty program and even if they haven't purchased a certain quantity of products or services. A gift of this kind can be regarded as a form of social exchange, as opposed to an economic exchange, and theoretically should be more effective in eliciting feelings of gratitude, stimulating reciprocation, and forming strong lasting relationships (Henderson, Beck, & Palmatier, 2011; Morales, 2005; Palmatier, Jarvis, Bechkoff, & Kardes, 2009).

A recent study by Accenture reports that “Receiving tokens of affection” is the number three factor, after “Brands protecting their personal information” and “Brands respecting their time,” influencing brand loyalty in the United States. Additionally, the survey highlights that 59% of U.S. consumers feel loyal to brands that present them with small tokens of affection, such as personalized discounts, gift cards, and special offers to reward their loyalty (Accenture, 2016). However, previous research has shown that customer special treatment might also lead to

unwarranted negative consequences. Spoiled customers develop a dangerous sense of entitlement that increases costs, lowers profits, and prompts unethical behaviors (Polyakova, Ordanini, & Estes, 2014; Wetzel, Hammerschmidt, & Zablah, 2014). Notwithstanding these first studies examining the relationship between firms' relational efforts and customer entitlement, our understanding of why and how customer entitlement originates in these promotional contexts remains limited. We build on attribution theory (Folkes, 1988; Kelley, 1967, 1973) to posit and provide evidence that even if given unconditionally, customers become entitled to business-to-consumer gifts when they are valuable and when they are provided on a regular and predictable basis. We find three boundary conditions that, together with our additional empirical results, allow us to provide actionable managerial insights to help firms prevent customers from becoming entitled to their gift-giving initiatives.

Another issue that remains unexplored by extant literature on business gifts is what happens when firms terminate gift-giving initiatives. Despite increased use of freebies, birthday discounts, free shipping, and other forms of unconditional business-to-consumer gifts regularly given away by firms with no minimum purchase necessary (e.g., Free Sephora Makeovers, Krispy Kream Free Donut on National Donut Day, Free Kids Workshops at Home Depot), and despite the growing acclaim for such marketing actions in the popular press (Alton 2016; Fasig 2015; Ferdman 2015; Hall 2013; White 2013), no research has examined what happens when firms decide to stop giving free gifts.

We believe this is not a trivial question as a global trend of pausing promotional escalation and of redefining promotional budgets is emerging (Eales, 2016; IEG, 2017). Also, it is common for firms to terminate gifting and other promotional efforts when the offer was meant to be for a limited time. Unlike loyalty-based programs for which firms must use an exit strategy



(e.g., a date by which to redeem remaining points) to ensure that their customers will not react negatively to its termination (Melnik & Bijmolt, 2015; Rehnen, 2016), firms might wrongfully assume that terminating unconditional business-to-consumer gift-giving does not require a formal termination strategy because of the unconditional nature of the gift. When firms' promotional efforts are based on loyalty programs requirements that customers fulfil and are clearly communicated to them (e.g., collecting 100 points grants access to the VIP area), entitlement arises because customers come to feel that they deserve special treatment by virtue of their loyalty or effortful actions. Less clear is whether customers come to feel entitled when firms offer them unconditional gifts without explaining the purpose or limits of the promotion. Common sense would suggest that customers who do not have to do anything to earn a benefit should not believe that they deserve it, and thus should not react negatively to the initiative ending.

If not empirically tested, the assumption that no termination strategy is required can be extremely dangerous for firms. Anecdotal evidence suggests that terminating promotional initiatives can generate a wide variety of customer negative retaliatory behaviors. For example, when Subway discontinued its Sub Club initiative, customers raged against employees, started an online petition, and complained on their personal blogs (Ogles, 2005). More recently, Starbucks' changes to its reward program caused outrage among its customers, especially gold level ones, who vocally protested on Twitter and publicly announced their intentions to switch to competitors (Mezzofiore, 2016). Our study fills this gap and extends prior literature by investigating the effect of unconditional business-to-consumer gift-giving initiatives termination on negative customer behavioral tendencies towards firms. We find that when customers become entitled to firms' unconditional gifts and firms terminate their gifting initiatives, customers

exhibit negative behavioral tendencies towards the firm that spoiled them. For example, we show that entitled customers who feel wronged express willingness to retaliate against the firm by ceasing to buy the product or service, buying elsewhere, spreading negative word-of-mouth, and even submitting direct complaints (Grégoire & Fisher, 2008; Huefner & Hunt, 2000).

A series of four studies examines what happens when customers no longer receive unconditional gifts and finds that customers indeed express negative behavioral intentions towards firms. The first two studies focus on uncovering the antecedents of customer entitlement in the context of unconditional business-to-consumer gift-giving. Studies 1 and 2 demonstrate that only customers who *regularly* and *repeatedly* receive *valuable* unconditional gifts develop a sense of entitlement. In Study 3, we validate that regularity is an important antecedent of customer entitlement, but we also demonstrate that boosting customer *gratitude* can counteract negative customer intentions following unconditional gifting termination. Finally, delving deeper into the process of customer entitlement, in Study 4 we show that customers become entitled to gifts they do not earn because they infer that they are valuable to the firm. With a moderation-of-process design, we show that when customers are explicitly told by the firm that the *selection criteria* by which gift recipients are chosen is not related to customer value, they no longer feel entitled or exhibit negative behavioral intentions.

This essay progresses as follows. First, we introduce our conceptual framework and develop the main hypotheses related to the effect of firms' unconditional gift-giving termination on customers negative behavioral intentions. We note here that Table 1 presents the key elements of prior research linked to our theorizing and the research gaps this essay addresses. Second, we present four studies that test our hypotheses; an overview of the studies is presented in Figure 1. Third, we discuss the theoretical and practical implications of our findings. Finally, we discuss

the limitations of our research, and suggest areas for future research.

## **THEORETICAL BACKGROUND**

### **Unconditional business-to-consumer gift-giving**

A gift is defined as a benefit that a party (i.e., giver) gives voluntarily to another (i.e., recipient) regardless of the type of benefit given and of the giver motives (Sherry, 1983). Gift-giving research has conceptualized four main functions of a gift: communication, social exchange, economic exchange and socializer (Belk, 1976, 1979). Traditionally, the marketing literature has addressed two aspects of gift-giving: the economic exchange and the social exchange. In particular, research on the economic exchange value of gift-giving focused on concrete aspects of gift-giving such as type of gift chosen, choice effort, and money value of the gift (Belk, 1979; Garner & Wagner, 1991). Differently, research on the social exchange value of gift-giving has investigated the relationships between gift, donors, recipients, and situational conditions (Belk & Coon, 1993; Sherry, 1983). Finally, regardless of the specific paradigm of interest, researchers from different disciplines have all theorized that the mechanism underlying gift-giving exchanges is the social norm of reciprocity (Belk, 1976; Schwartz, 1967; Sherry, 1983). The norm of reciprocity refers to the common social expectation that people will return benefits for benefits (Gouldner, 1960). Therefore, the reciprocity that the gift recipient owes to the gift giver is the force behind gift-giving's continuous perpetration and its function of forming and maintaining social relationships.

The social relationship building and reciprocity aspects of gift-giving are at the core of business gifts initiatives. Business gifts are frequently used by firms to please their customers and to foster reciprocation in the form of increased sales, higher re-purchase intentions, and overall satisfaction (Beltramini, 1992, 2000). On a more general level, firms offer gifts to their

customers to build lasting relationships that form the basis of many positive customer behaviors such as loyalty (Henderson et al., 2011). In the sales promotion and loyalty programs literature, researchers have often distinguished between monetary (e.g., discount) and non-monetary (e.g., sweepstakes) aspects of free gifts (Chandon, Wansink, & Laurent, 2000; Kwok & Uncles, 2005), but in the present research we focus on the conditional and unconditional aspects of those initiatives. In particular, we examine one frequently used sales promotion strategy: unconditional business-to-consumer gift-giving (Bodur & Grohmann, 2005). As the term suggests, we concentrate on a customer reward that is independent of customers' actions, as no explicit reciprocation request is made by the firm. For example, an unconditional gift would never be followed by an explicit reciprocation request, such as "the gift certificate is conditional on placing three orders in the next six months," but it is more likely to be used to elicit the reciprocation behaviors that are implicitly associated with the gift itself (e.g., "we appreciate your business").

We are interested in this type of gift because they are commonly used in business practice, but no research has examined their potential to harm firms. Previous research has shown that offering perks to customers can backfire by promoting negative and opportunistic customer behaviors. In particular, Wetzel and colleagues (2014) showed that offering prioritized benefits to customers not only induced gratitude, which increased the firm's sales and profitability, but also induced entitlement (e.g., I deserve this), which increased the firms' service costs and reduced its profits. When free gifts have been earned through repeated purchases or participation in loyalty programs tied to explicit reciprocation requests (e.g., "buy one, get one free"; "gold members get free breakfast"), customer sense of entitlement is easily understood—

Table 2-1. Overview of Related Research.

Publication	Finding(s)	Select Dependent Variable(s)	Select Independent Variable(s)	Unexamined/Unmeasured Variables
Belk 1976	<p>The concept of reciprocity explains the overall process of gift-giving.</p> <p>Gift characteristics act as a statement of giver's perception of the recipient.</p> <p>Misestimation of recipient preferences is more likely when the gift giver is not familiar with the recipient and/or when there is no history of reciprocal gift exchange.</p> <p>Gift-giving balance is a desirable state leading to increased satisfaction and imbalance occurs unintentionally because of giver mistaken perception of receiver or because of unanticipated receiver responses.</p>	Giver actual vs. ideal self-concept, giver perception of the recipient, giver liking of recipient, giver evaluation of the gift, giver perception of recipient's affect towards the gift; gift-giving balance.	Participants asked to describe three instances of recent gift-giving and describe certain personal characteristics.	Gift value, entitlement, gratitude, repeated gift offerings and gift-giving termination.
Belk 1979	Gift-giving four functions: communication, social exchange, economic exchange and socializer.	N/A, theory paper	N/A, theory paper	
Larsen and Watson 2001	<p>Gift value four levels: economic, functional, social, and expressive.</p> <p>The type of gift given reflects the type of relationship.</p> <p>In general, gifts with higher costs will be more highly valued.</p>	N/A, theory paper	N/A, theory paper	
Beltramini 1992	Business gift-giving increases customers positive perception of a donor company's product attributes; increases customers willingness to reciprocate by calling donor company to purchase products.	Attitudes towards product characteristics: price, quality, service, and delivery; Reciprocity.	Business Gift (present vs. absent)	Gift value, entitlement, gratitude, repeated gift offerings and gift-giving termination.
Beltramini 2000	<p>Business gift-giving increases customer satisfaction, purchase intention, and actual sales.</p> <p>Relatively more expensive business gifts contribute more positively to customers' attitudes than do relatively less expensive business gifts.</p>	Pre- and Post- Gift customer satisfaction, purchase intention, and actual sales.	Business Gift (absent vs. 20\$ vs. 40\$)	Entitlement, gratitude, repeated gift offerings and gift-giving termination.
Chandon et al. 2000; Study 3	<p>There is a distinction between utilitarian and hedonic benefits of, and between monetary and nonmonetary, sales promotions.</p> <p>Monetary savings are not the only consumer benefit of sales promotions.</p> <p>Consumers can distinguish utilitarian or hedonic benefits.</p> <p>All benefits (except quality) predict overall evaluation of monetary or nonmonetary promotions.</p>	Overall evaluation of the promotion.	Six Benefits: savings, quality, convenience, value expression, exploration, and entertainment.	Unconditional nature of the gift.

Publication	Finding(s)	Select Dependent Variable(s)	Select Independent Variable(s)	Unexamined/Unmeasured Variables
Bodur and Grohmann 2005	Greater gift and product evaluation, and reciprocation intentions when relationship with business is strong (vs. weak).  Gift value has no effect on any of the dependent variables.  Implicit request (vs. explicit request) has a positive impact on all dependent variables.	Gift evaluation, attitudes towards the product, reciprocation likelihood, manipulative intent.	Relationship strength (strong vs. weak), gift value (low vs. high), and nature of request (implicit vs. explicit).	Repeated gift offerings and Unconditional gift-giving termination.
This paper	Hypothesis 1	Feelings of customer entitlement.	Antecedents of customer entitlement: gift repetition, customer past purchase frequency, gift regularity, gift value.	
Melnyk and Bijmolt 2015	Change in Loyalty at program entry: discrimination between members and non-members has a positive effect, interaction between customization and customer education has a negative effect; gender, income, education, and price sensitivity all have a positive main effect; privacy concern has a negative main effect.  Change in Loyalty at program termination: discount and savings do not have an effect, but the interaction between discount and customer income is significant in that the higher the discount the stronger the adverse effect on loyalty for low income customers; customization and discrimination have no effect on loyalty at termination; loyalty program penetration has a significant main effect in that the larger the share of companies that offer loyalty programs within the industry the more negative the reaction upon program termination.	Change in Loyalty at program entry, Change in Loyalty at program termination.	Loyalty program benefits: savings percentage, discount percentage, discrimination and customization. Consumer characteristics: socio-demographic variables, program membership length, perceived importance due to membership, privacy concerns, price sensitivity, innovativeness. Loyalty program penetration.	Unconditional gift-giving termination, customer negative behavioral intentions upon termination.
This paper	Hypothesis 2	Customer negative behavioral intentions upon termination.	Unconditional gift-giving termination.	
Wetzel et al. 2014	Customer prioritization efforts initiate both gratitude-driven processes, which enhance sales and profit, and an entitlement-driven processes, which increase service costs and reduces profit.	Customer gratitude, customer entitlement, sales growth, service cost growth, and profit growth.	Core benefit provision, preferential treatment, status elevation.	Business-to-consumer unconditional gift-giving, gift-giving termination, customer negative behavioral intentions upon termination.
This paper	Hypothesis 3-4	Customer gratitude, customer entitlement, customer negative behavioral intentions upon termination.	Unconditional gift-giving termination, gift recipient selection criteria, gratitude.	

the customers view themselves as having worked hard and/or been loyal to the firm and so they feel they deserve to receive gifts. However, no research has investigated the effects of unconditional gifts to determine if they engender the same sort of sense of entitlement. Common wisdom may suggest that an unconditional gesture that does not require effort on the part of the customer will not elicit feelings of entitlement. Moreover, according to previous findings, a selfless gesture from the firm should elicit higher levels of customer gratitude (Morales, 2005). However, in the next sections, we posit that there are some characteristics of unconditional business-to-consumer gift-giving promotions that can elicit heightened feelings of customer entitlement and lead to negative consequences for firms.

### **Antecedents of customer entitlement**

Entitlement refers to the feeling that one is more deserving of something than others (Zitek, Jordan, Monin, & Leach, 2010). In psychology, entitlement is a component of narcissism (Raskin & Terry, 1988) in which individuals who have a high degree of self-admiration or self-centeredness tend to believe that they deserve more than other people do. Because narcissism is a personality trait, entitlement has also been treated as an inherent individual difference in psychological and behavioral economic studies (Campbell, Bonacci, Shelton, Exline, & Bushman, 2004). However, more recent studies have shown that entitlement can be induced as a situational state. For instance, (Zitek et al., 2010) showed that reminding people that they had been wronged in the past increased their sense of entitlement, and (Kivetz & Zheng, 2006) showed that people who believed that they had worked hard on a task were more likely to engage in indulgent consumption because they felt entitled to it. Thus, it is plausible that a situational factor such as receiving unconditional gifts from a firm could trigger a sense of entitlement in customers beyond their trait predispositions.

In the consumer research literature, consumer entitlement is defined as consumers' perceptions of being a special customer of the firm (Boyd III and Helms 2005). Building on attribution theory, we argue that consumers derive such a perception from their past interactions with the firm as they receive unconditional gifts. Attribution theory posits that people naturally attempt to infer causes for observed behavior and, in a similar fashion, customers naturally make inferences about firms' behavior (Folkes, 1988; Kelley, 1967). The tendency of consumers to make attributional judgments only manifests when no explicit causal explanation is available (Kelley, 1973; Weiner, 2000). If the gift that a customer receives is conditional or based on an explicit reciprocation request, the reason for the gift-giving initiative would not need to be inferred but it would be explicitly defined by the firm itself. However, in the case of customers receiving unconditional gifts from firms, there is no explicit cause, and customers will need to come up with an explanation themselves.

One major tenet of attribution theory is the distinction between event causality being attributed to the person making the attribution and to the situation in which the attribution is made, namely dispositional and situational attribution. Research has shown that individuals tend to attribute positive outcomes to dispositional causes and negative outcomes to situational causes (Heider, 1982; Kelley, 1967; Shaver, 1975). For example, if a student fails an exam, he will likely blame it on the difficulty of the test rather than to his level of preparedness. On the other hand, if a student earns an A on an exam, he will likely attribute it to his intelligence or his effort in preparing for it. Similarly, when consumers experience a positive outcome (i.e., receiving a gift), they may make an internal causal attribution and take credit for it. In other words, consumers interpret positive outcomes in line with an egocentric bias that leads to self-serving attributions (Weiner, 2000). Therefore, one possible interpretation that customers make is that



firms want to show their appreciation for their value. If customer previous interactions with the firm (e.g., they often receive gifts) gives them a reason to attribute the cause of the gift to themselves (e.g., I receive them because I am a special customer of the firm) instead of to the firm (e.g., I receive them because the firm spoils me), they will become entitled (i.e., I deserve to receive gifts because I am a special customer of the firm). This attribution is strengthened when customers examine the antecedents for their causal inference.

According to (Kelley, 1973), customer antecedents for causal inferences fall into three categories: motivations (e.g., esteem needs), information (e.g., action frequency, consistency, and covariation), and prior beliefs (e.g., preexisting hypotheses, suppositions, and expectations). The motivation behind customers attribution following unconditional gifts is clearly to enhance their self-worth because, consistent with previous research findings, positive outcomes are attributed to the self (i.e., *entitlement*) and result in positive affect (Kelley, 1973; Weiner, 2000). The information available to customers when they receive unconditional gifts from a firm relates either to the modality in which firms provide the gifts (i.e., *repetition* and *regularity*) or to the modality in which customer interacted with firms in the past (i.e., *past purchase frequency*). Finally, prior beliefs that customers base their attributions on likely originates from their suppositions about how business-to-consumer gift-giving works. In the case of business gifts, customers are more likely to have observed how conditional gift-giving initiatives work because they provide an explicit causal explanation. Given that conditional gift-giving is provided following an explicit reciprocation request, which typically covaries with customer value to the firm (e.g., golden members are offered a gift because they spent more and are more valuable to the firm), customers will be more prone to associate *gift value* with customer value.

Specifically, we posit that some aspects of customers previous interactions with the firm,

which are common in the context of business-to-consumer gift-giving, will act as antecedents of customers' causal inferences and contribute to their sense of entitlement. Firstly, *repetition* of gift receipt, meaning that customers receive the unconditional gift more than once, will strengthen their inference of being valuable to the firm because customers will have multiple observations over which to notice covariations between cause and effect (Kelley, 1973). In other words, when customers receive unconditional gifts repeatedly (vs. once), the salience of the covariation between their valuable contribution to the firm (i.e., continuous business) and the receipt of the gift will be higher and thus judged as the most probable explanation. Formally,

**H1a.** Customers receiving unconditional business-to-consumer gifts *repeatedly* from the firm, will exhibit higher feelings of entitlement as compared to customer who do not.

Secondly, customers *past purchase frequency*, meaning how often customers purchased from the firm in the past, will similarly strengthen their inference of being valuable to the firm and their sense of entitlement. When customers have purchased frequently from a firm in the past and they receive a gift, the covariation between having purchased often in the past and receiving a gift will be also more salient.

**H1b.** Customers who purchased more from the firm in the past will feel more entitled to unconditional business-to-consumer gifts as compared to customer who did not.

Thirdly, *regularity* of gift receipt, meaning that customers receive unconditional gifts following a regular pattern (e.g., every other order), will strengthen customers' inferences of

being valuable to the firm because regular successions of events are often interpreted as proceeding from a common cause (White 1992). In the case of regularly delivered unconditional gifts, customers will infer that they receive gifts because they are valuable to the firm, and gift regularity will strengthen their attribution of the outcome to that single cause. Contrarily, when unconditional gifts are delivered following an irregular pattern, such irregularity introduces the possibility that there are multiple feasible causes behind firm's gift-giving, and gift irregularity will weaken customers' attributions of the outcome to their value as customers. When multiple causes are easy to imagine, customers' confidence in their internal attributions of being valuable to the firm will diminish, thus preventing them from feeling entitled. More formally,

**H1c.** Customers receiving unconditional business-to-consumer gifts *regularly* from the firm will exhibit higher feelings to entitlement as compared to customer who do not.

Finally, *gift value* will also inform customer value inference and lead to feelings of entitlement. Customers have preexisting hypotheses about the signaling function of gift value that informs their attribution-making process. To fulfill its communicative function, the type of gift given must reflect the nature of the relationship and have a monetary value appropriate to the level of commitment to the relationship (Larsen & Watson, 2001). The costlier a gift is to the giver, the greater the importance of the recipient to the giver (Belk, 1979). Accordingly, customers will attribute gift value to their own value as customers within their relationship with the firm, and they will become entitled. Thus, we predict that

**H1d.** Customers receiving *valuable* unconditional business-to-consumer gifts from the firm will

exhibit higher feelings of entitlement as compared to customers who do not.

Summarizing, we argue that the way in which unconditional business-to-consumer gift-giving initiatives are designed and executed will make it more likely for customer to infer that a firm gives them gifts because they are valuable customers. If *valuable* unconditional business-to-consumer gifts are offered *repeatedly* and *regularly* to customers who *often* purchased from the firm in the past, customers will fail to attribute firms' gift-giving to firms' selfless attempts to elicit gratefulness and building a lasting relationship. On the contrary, they will attribute firms' gift-giving to their own merits (i.e., I am a valuable customer), and consequently they will develop feelings of *entitlement* even when business gifts are given unconditionally without an explicit reciprocation request.

### **Customer negative behavioral intentions**

Just as common wisdom suggests that an unconditional gesture will not elicit feelings of entitlement, it also suggests that terminating unconditional gift-giving should not trigger negative behavioral intentions. Customers should not feel wronged when they do not receive what was an unconditional gift because they did nothing to earn it. Moreover, according to the tenets of norm reciprocity, not only should people help those who helped them, but they should also not harm those who helped them (Gouldner, 1960). Accordingly, firms might wrongfully assume that they do not need an exit strategy when terminating unconditional business-to-consumer gift-giving initiatives.

When firms terminate their unconditional business-to-consumer gift-giving initiatives without an explicit communication of why they do so, they again prompt customers to consider the cause of this event. In this case, the outcome that the customer evaluates is not a positive one

(i.e., gift receipt), but it is a negative one (i.e., gift absence). Attribution theory suggests that when individuals form casual attributions for negative events, they tend to blame others in an attempt to preserve their self-worth (Kelley, 1967, 1973). Moreover, according to a cognition-emotion process of attribution proposed by Weiner (2000), when consumers evaluate a negative outcome they feel negative emotions that are general (e.g., I feel disappointed), but they also feel negative emotions that are specifically targeted at the firm (e.g., I feel angry at them). These negative emotions arising from the attributional process are the ones that in turn prompt customers' negative behaviors towards the firm (e.g., complaint, punish).

We have argued that when business-to-consumer gift-giving initiatives are designed so that they generate customer entitlement, customers will indeed feel they deserve those gifts by virtue of being valuable to the firm. Therefore, we now posit that when customers are entitled to unconditional business-to-consumer gifts, they will feel wronged when they no longer receive them, and they will express negative behavioral intentions. Formally,

**H2.** When customers no longer receive unconditional business-to-consumer gifts, entitled customers will exhibit higher negative behavioral intentions towards the firm as compared to customers who are not entitled.

Negative behavioral intentions have been widely examined in the literature on service failure and in the literature on customer satisfaction (Hirschman, 1970; Huefner & Hunt, 2000; Maute & Forrester, 1993; Oliver, 2010). According to the classic taxonomy given by Hirschman (1970), when customers perceive a decrease in quality or in benefits provided by a company, they have at least two ways to tell management: they can exit (i.e., withdraw from the

relationship) or they can voice (i.e., express complaints). Building on this first classification, researchers have described and measured more extreme forms in which customers express their dissatisfaction (i.e., retaliation). Extreme means of retaliating include vandalism, stealing, negative word of mouth, and verbal attacks (Huefner & Hunt, 2000), but the desire for retaliation can be expressed in less extreme ways, such as boycotting the firm (e.g., reducing the frequency of purchases, spending less per visit, and/or buying from competitors) and complaining directly or indirectly (Grégoire & Fisher, 2006). To reflect the various classifications of customer negative behavioral intentions towards the firm that have been given in the literature, we include both extreme (i.e., retaliation) and moderate (i.e., exit and voice) types of behavioral intentions in our experiments. For a complete list of negative behavioral intentions used, see Appendix A.

#### **Underlying processes: customer entitlement and customer gratitude**

Entitlement is positively correlated with other psychological constructs such as aggression (Emmons, 1984) and hostility (Raskin & Terry, 1988) and is negatively correlated with social desirability (Watson, Grisham, Trotter, & Biderman, 1984), and individuals who feel entitled exhibit behaviors associated with these constructs. For example, they tend to be less forgiving (Exline, Baumeister, Bushman, Campbell, & Finkel, 2004), more frequently exhibit selfish behavior, and have a strong tendency to engage in aggressive behavior (Campbell et al., 2004). Psychological entitlement is also positively correlated with a perception of inequity (King & Miles, 1994). Generally, when people feel wronged, they also exhibit a greater sense of entitlement (Zitek et al., 2010). In the context of the customer satisfaction literature, research has shown that consumers who experience inequity because of product or service failure or because of an inadequate firm recovery tend to retaliate against the firm to “get even” (Grégoire & Fisher, 2008; Huefner & Hunt, 2000; Kähr, Nyffenegger, Krohmer, & Hoyer, 2016). Therefore,

we propose a mediation mechanism of the effect of unconditional business-to-consumer gifts on customers' feelings of entitlement, which in turn will increase customers' negative behavioral intentions once the gifting is terminated. Formally,

**H3a.** Feelings of entitlement positively mediate the impact of unconditional business-to-consumer gifting termination on negative customer behavioral intentions.

We have argued that unconditional business-to-consumer gift-giving initiatives can lead to negative consequences because of feelings of entitlement, but research on relationship marketing suggests that unconditional business-to-consumer gift-giving initiatives also trigger consumer gratitude (Henderson et al., 2011; Morales, 2005; Palmatier et al., 2009). According to the norm of reciprocity (Gouldner, 1960), grateful consumers should compensate firms that give them gifts and should not be willing to harm them. Therefore, we also investigate the ability of gratitude to mitigate the negative effects of entitlement on customer negative behavioral intentions. Specifically, we explore how feelings of gratitude might decrease entitled customers' negative behavioral intentions after unconditional gift-giving termination. We predict that feelings of gratitude will also mediate the effect of unconditional business-to-consumer gifts termination on customer negative behavioral intentions, but they will do so the opposite way of feelings of entitlement. Namely, feelings of gratitude deriving from unconditional business-to-consumer gifts will decrease customer negative behavioral intentions. Formally,

**H3b.** Feelings of gratitude negatively mediate the impact of unconditional business-to-consumer gifting termination on negative customer behavioral intentions.

We test our predictions regarding unconditional business-to-consumer gift-giving termination and negative behavioral intentions in four experiments using both online and offline shopping scenarios and four types of unconditional business-to-consumer gifts. Scenario-based experiments are suited for our investigation for several reasons. First, participants in scenario-based experiments tend to overstate positive feelings and understate negative behavioral intentions resulting from service failures compared to participants engaged in field experiments (Kim & Jang, 2014). Given that our aim is to measure negative behavioral intentions and feelings, we believe that scenario-based studies will provide even a more conservative test of our hypotheses. Secondly, using scenario-based experiments allows us to test for a variety of specific entitlement antecedents in a controlled way that would not be possible in a field study. Finally, a scenario-based methodology allows us to test our hypotheses even if firms are unwilling to run field studies to test customers' reactions to dissatisfaction.

Across four studies, we show that repeatedly and regularly offering high-value unconditional business-to-consumer gifts increases consumers' degree of entitlement and intentions to retaliate once the gift-giving initiative terminates (see Figure 1). Our first three studies focus on the attributional consequence (i.e., entitlement) of unconditional business-to-consumer gift-giving by manipulating the antecedents of customers' causal attributions (i.e., customer past purchase frequency, firm gift-giving repetitiveness and regularity, gift value). Moreover, Study 3 also provides evidence that external reminders of gratefulness towards the firm can dampen the negative effects of customer entitlement. Study 4 tests customers' attributional inferences directly by manipulating the explicit criteria by which gift recipients are selected. Specifically, using a moderation-of-process experimental design (Spencer, Zanna, & Fong, 2005), instead of manipulating the causes the attribution, we manipulate the attribution



itself (valuable customer vs. randomly selected customers) and show that when the cause of gift recipient selection is explicitly attributed to randomness instead to customer value, the effect of customer entitlement disappears.

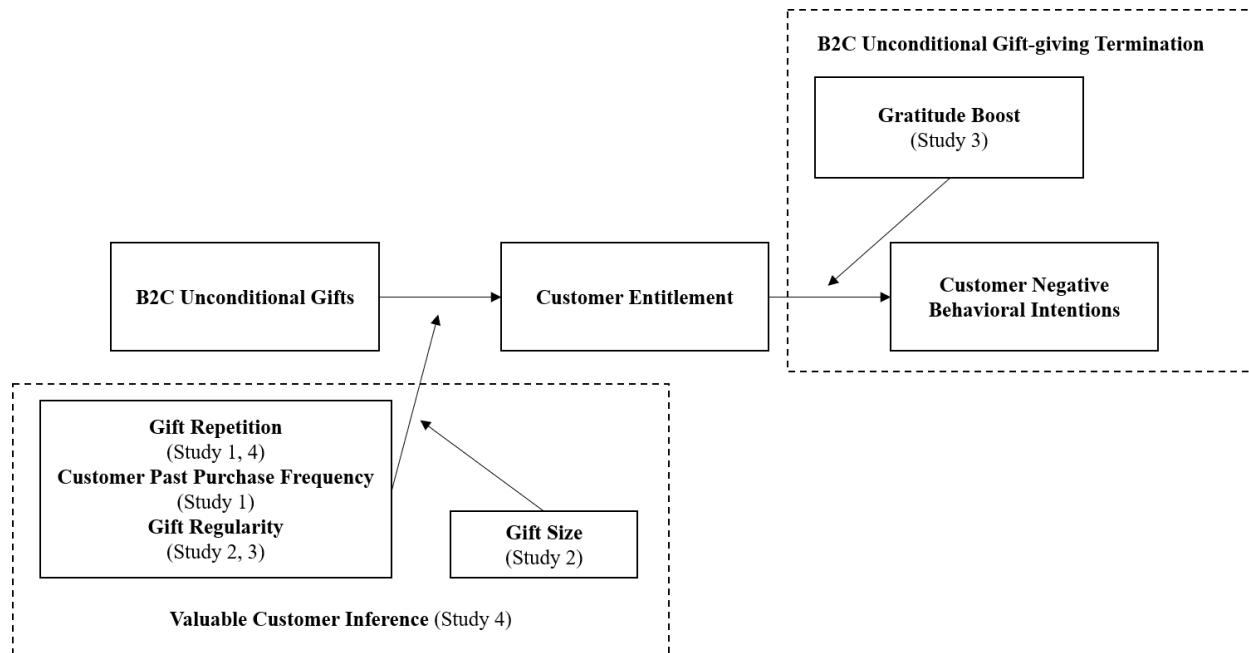


Figure 2-1. Theoretical Framework and Overview of the Studies.

## STUDY 1: GIFT REPETITION AND PAST PURCHASE FREQUENCY

With Study 1, we aim to test our predictions that unconditional business-to-consumer gift-giving offered repetitively to customers who purchased frequently from a firm in the past will increase customers' sense of entitlement (H1a and H1b), which in turn will increase customers' negative behavioral intentions towards the firm once they no longer receive the gift (H2 and H3a). Finally, we also investigate the role of customer gratitude in mediating this effect by testing whether feelings of gratitude elicited by unconditional business-to-consumer gift-giving decrease negative behavioral intentions (H3b). As a second objective, we attempt to rule out other potential process explanations such as increased negative emotions and expectation disconfirmation. It could be argued that terminating repeated unconditional gift-giving initiatives

would trigger some degree of negative emotional response that could fully explain customer negative behavioral intentions (Kähr et al., 2016). Even if we posited that a certain degree of negative emotions is expected according to the cognition-emotion process of attribution (Weiner, 2000), our goal in this study is to show that negative emotions do not fully explain customer behavioral intentions. Finally, it could be also argued that, according to expectation disconfirmation theory (Oliver, 1977), terminating repeated unconditional gift-giving initiatives would induce customer dissatisfaction and negative behavioral intentions because failing to receive a gift after multiple instances of gift receipt would conflict with customers' expectations. Accordingly, in this study, customer negative emotions and customer expectations are measured to test whether these constructs can explain the effect.

### **Design and Stimuli**

We employed a 2 (repetition of unconditional gift: every-time gift vs. one-time gift)  $\times$  2 (customer past purchase frequency: eight times vs. four times) between-subjects design in an experiment examining free unconditional shipping following online grocery shopping as an unconditional business-to-consumer gift.

In the first step of the experiment, participants in the every-time gift (one-time gift) eight times past purchase frequency (four times past purchase frequency) condition were presented with the following scenario:

You started buying groceries online because it is convenient, and it saves you time. Every Sunday for the last 8 weeks (4 weeks) you had been purchasing 80 dollars' worth of weekly groceries from the same online retailer. For these 8 purchases (4 purchases), the retailer offered you free shipping every time (once).

Today is Sunday, and you proceed with your usual weekly order. You move on to the payment page, and you see you have NOT been offered free shipping with this order.

Therefore, in the one-time gift condition, participants received unconditional free shipping once regardless of whether they had purchased four times or eight times from the retailer in the past. However, in the every-time gift condition, participants who had purchased four times received free shipping four times, whereas participants who had purchased eight times received free shipping eight times. Based on our reasoning, for the one-time gift condition, we expect no difference in entitlement and negative behavioral intentions between those who had purchased four and eight times in the past (H1a). In contrast, for the every-time gift condition, we expect participants to feel more entitled and have greater negative behavioral intentions if they had purchased eight times (vs. four times) in the past (H1b).

After reading the scenario, participants rated their intent to engage in a list of negative behaviors against the online retailer (see Appendix A) that were selected using two criteria: they were identified as typical retaliatory behaviors varying in extremity (Grégoire & Fisher, 2008; Huefner & Hunt, 2000) and they fit our designed scenarios and could best capture plausible behavioral reactions in the situations described. Participants rated their intent using a 7-point scale (1 = in extremely unlikely, 7 = extremely likely).

In the next step of the experiment, participants read the same scenario again and indicated how they would feel if they were in that situation. We measured their *sense of entitlement* by asking them to rate on a 7-point scale (1 = strongly disagree, 7 = strongly agree) the extent to which they agreed with the following statements: “I feel that I deserve free shipping from this online retailer,” “I feel that I should be treated in a special way by this online retailer,” “I feel

that I should be treated better than other customers of this online retailer,” and “I feel that I should always receive free shipping from this online retailer.” The questions measured the participants’ general beliefs about whether they were more deserving than others. We chose not to use existing scales of psychological entitlement (Campbell et al., 2004) and consumer entitlement (Boyd III and Helms 2005; Butori 2010) because they were developed to measure entitlement as a personality trait or to measure entitlement in a physical retail setting and could not accurately measure entitlement as a state in our scenarios. Raskin and Terry (1988) define an entitled individual as one that “expects special treatment and automatic compliance with his or her expectations.” Accordingly, our items were developed based on the definition of entitlement, incorporating the notions of expectation of the unconditional gift, deservingness of the unconditional gift, and expectation of automatic firm compliance. Finally, we adapted the four items to each single scenario by changing the target firm and target unconditional gift.

We measured participants’ *gratitude* by asking them to rate on a 7-point scale (1 = strongly disagree, 7 = strongly agree) the extent to which they agreed with “I feel grateful/appreciative/thankful to the online retailer” (Palmatier et al., 2009) and measured their *negative emotions* by asking them to rate the extent to which they agreed with “I feel angry/sad/disappointed.” Moreover, we measured participants’ *expectations* by asking them to rate on a 7-point scale (1= not at all, 7= very much) the extent to which they had expected to receive free shipping for the current order.

As manipulation checks, we asked participants to rate on a 7-point scale how repetitive and regular the gift-giving offer was. We further asked them to rate how realistic the scenario was and how difficult it was to imagine being in that situation to ensure that the scenarios under the various conditions were equally plausible. Finally, as attention checks, participants were

asked at the end of the experiment to recall the number of past purchases and number of times they received free shipping in the scenario.

## **Results and Discussion**

Two hundred and four Amazon Mechanical Turk (MTurk) panelists participated in the study in exchange for small monetary compensation. Thirty-three (16.18%) failed one or both attention check questions and were removed from the sample, leaving 171 respondents for the analyses (40% male,  $M_{\text{age}} = 37.23$ ,  $SD = 12.30$ ).

In terms of perceived realism, participants reported that receiving free shipping eight times was less realistic than receiving free shipping four times (5.19 vs. 5.53,  $F(1, 167) = 3.98$ ,  $p = .05$ ). However, controlling for this factor did not change the results of the analyses. Furthermore, there was no difference in difficulty in imagining the scenario among the four conditions ( $F(1, 167) = 2.21$ ,  $p = .14$ ). Due to the lack of effects for these two measures, we do not report the analyses for them in the subsequent studies.

*Manipulation checks.* The manipulation checks showed that participants in the every-time gift condition perceived free shipping as more repetitive (5.98 vs. 1.98,  $F(1,167) = 435.05$ ,  $p < .001$ ) and had a greater expectation of receiving free shipping (6.00 vs. 3.70,  $F(1,167) = 68.65$ ,  $p < .001$ ) than participants in the one-time gift condition, which suggests that the repetition manipulation was successful. We also found an interaction effect for repetition and purchase frequency on the perceived regularity of gift receipt ( $F(1,167) = 4.09$ ,  $p = .05$ ); the participants perceived free shipping on eight of eight purchases as more regular than free shipping on four of four purchases (6.36 vs. 5.77,  $F(1,167) = 5.21$ ,  $p = .02$ ). When free shipping was offered only once, there was no difference in their perceptions of regularity for four and eight purchases (1.89 vs. 2.05,  $F(1,167) = .37$ ,  $p = .55$ ), which suggests that our manipulation of

past purchase frequency was successful.

*Negative behavioral intentions.* We collapsed the negative behavioral intentions items into a single measure ( $\alpha = .93$ ). The two-way analysis of variance (ANOVA) on negative behavioral intentions showed a significant main effect of repetition ( $F(1, 167) = 13.70, p < .001$ ). Participants in the every-time gift condition reported greater negative behavioral intentions upon gift-giving termination ( $M = 3.38$ ) compared to participants in the one-time gift condition ( $M = 2.68$ ). The main effect of past purchase frequency was not significant ( $F(1, 167) = .07, p = .80$ ), suggesting that negative behavioral intentions did not increase with past purchase frequency.

*Customer entitlement.* We collapsed the four entitlement items into a single measure ( $\alpha = .88$ ). The two-way ANOVA on customer entitlement showed that repetition had a significant effect ( $F(1, 167) = 3.85, p = .05$ ); participants in the every-time gift condition felt more entitled ( $M = 3.87$ ) than participants in the one-time gift condition ( $M = 3.43$ ). The effect of past purchase frequency was again not significant ( $F(1, 167) = .28, p = .60$ ), suggesting that the degree to which customers felt entitlement did not increase with the number of past purchases.

*Customer gratitude.* We collapsed the three gratitude items (thankful, grateful, and appreciative) into a single measure ( $\alpha = .97$ ). The two-way ANOVA on that measure showed no significant effect from repetition ( $F(1, 167) = .25, p = .62$ ) or from number of gifts received ( $F(1, 167) = .48, p = .49$ ). These findings suggest that participants felt grateful as long as they received free shipping at least once and that their level of gratitude did not increase with a greater number of unconditional free shipping being offered.

*Negative emotion.* The three negative emotions (sadness, anger, and disappointment) were collapsed into a single measure ( $\alpha = .81$ ). The two-way ANOVA showed that repetition had

an effect on negative emotions ( $F(1, 167) = 17.25, p < .001$ ); terminating a repetitive free shipping offer induced greater negative emotion in participants ( $M = 4.43$ ) than terminating a one-time offer ( $M = 3.49$ ). Past purchase frequency had no significant effect on the degree of negative emotion ( $F(1, 167) = 1.34, p = .25$ ).

*Mediation tests.* To determine whether the effect of unconditional gift-giving termination on customers' negative behavioral intentions was mediated by customer entitlement, we ran a mediation test using the SPSS PROCESS module model 4 (Hayes, 2012) with 5,000 bootstraps. The results showed that entitlement had a significant indirect effect at a 90% confidence interval ( $B = .21, SE = .12, CI = [.03, .41]$ ). Since negative emotions, declining gratitude, and expectations could alternatively account for the effect of entitlement, we ran a second mediation test in which entitlement, gratitude, expectations, and negative emotions were entered as parallel mediators. The results of a 5,000-iteration bootstrap showed that entitlement had a significant indirect effect at a 95% confidence interval ( $B = .21, SE = .05, CI = [.11, .31]$ ) and so did negative emotions ( $B = .21, SE = .06, CI = [.10, .33]$ ) and gratitude ( $B = -.29, SE = .06, CI = [-.40, -.18]$ ). Participants' expectations did not significantly mediate the effect of gifting termination on negative behavioral intentions ( $B = .02, SE = .05, CI = [-.08, .12]$ ). These results suggest that participants' negative behavioral intentions following a repetitive unconditional free shipping initiative termination were positively mediated by entitlement and negatively mediated by gratitude even when accounting for participants' negative emotions and free shipping expectations. While we did not make a formal prediction about the mediating effect of negative emotions on customers negative behavioral intentions, this result is generally consistent with the H2. Specifically, according to the cognition-emotion process of attribution proposed by Weiner (2000), customer attributions will generate negative emotions, which in turn will prompt

consumer action.

This first study shows that terminating unconditional business-to-consumer gift-giving that was offered repeatedly to customers induced their negative behavioral intentions against the online retailer. However, increasing the frequency of gift receipt did not increase customers' negative behavioral intentions. The same pattern was found for entitlement: any repetition of gift receipt increased the customers' sense of entitlement relative to a one-time offer, whereas different frequencies of past purchase frequency (four versus eight) had no impact. We attribute this null effect of repetition frequency to the fact that our repetition manipulation was "with every order," which implied certainty and gave the participants a high degree of confidence in their inferences. Therefore, increasing the repetition frequency did not further increase their confidence.

Another important finding from this study is that unconditional business-to-consumer gift-giving increases consumer gratitude, which is in line with findings from prior research (Palmatier et al., 2009). However, gratitude does not accumulate with gift repetition—a one-time offer was sufficient to trigger gratitude and the degree of gratitude did not increase with additional offers, even though the offers increased the degree of entitlement. Thus, when unconditional business-to-consumer gifts are provided more than once and then terminated, entitlement overrides gratitude and spurs customer negative behavioral intentions.

We further find that negative emotions and expectation disconfirmation arising from termination of gift-giving do not fully explain customers' greater intentions to retaliate. We find that even when accounting for negative emotions, customer expectations, and customer gratitude, customer entitlement still explains the effect of multiple free gifts on customers' negative behavioral intentions.



## **STUDY 2: GIFT REGULARITY AND GIFT VALUE**

The second study has three objectives. First, we aim to replicate the findings from the first study using an offline shopping scenario and a free product as unconditional business-to-consumer gift to determine whether our effect is generalizable to offline settings and to other typologies of unconditional gifts. We also posit that customers will feel less entitled to unconditional gifts when they are not predictably delivered. Therefore, a second objective is to examine the effect of unconditional business-to-consumer gifts on customer negative behavioral intentions not only as a function of repetition, but also as a function of regularity (H1b) by using a scenario in which customers have received unconditional gifts on a regular basis in the past before the initiative is terminated. Finally, our third objective is to examine the effect of the size of the monetary value associated with the gift. We expect that a relatively high-value gift will increase participants' sense of entitlement more than will a relatively low-value gift (H1d).

### **Design and Stimuli**

We employed a 2 (regularity: every-time vs. sometimes)  $\times$  2 (gift value: large vs. small) between-subjects design. Participants in the every-time (sometimes) and large gift (small gift) conditions read that they had ordered \$30 worth of sushi from the same sushi restaurant eight times in the past. Out of eight (four) times, they received a free dessert worth \$12 (\$2). That day, they placed their usual sushi order but did not receive the free dessert.

We measured the participants' negative behavioral intentions, sense of entitlement, and expectations the same way as was done in the first study. As manipulation checks, we asked the participants to rate how repetitive and regular the free gifts were and how valuable the gift was to them. As attention checks, the participants had to recall the frequency of receiving the free dessert and the value of that dessert.

## Results and Discussion

Two hundred MTurk panelists participated in the study in exchange for a small monetary reward. Thirty-two (16%) failed at least one attention check question and were removed from the sample, leaving 168 respondents (42% male,  $M_{\text{age}} = 36.56$ ,  $SD = 11.37$ ).

*Manipulation checks.* A two-way ANOVA on the participants' perceptions of the repetitiveness and regularity of receiving the gift showed only a main effect of regularity (all  $F(1,164) > 62$ , all  $ps < .001$ ). Compared to participants in the sometimes condition, participants in the every-time condition perceived the unconditional gift as being more repetitive (6.27 vs. 4.51) and more regular (6.40 vs. 4.40). These results suggest that the manipulation of regularity was successful. The two-way ANOVA on perceived gift size showed an effect only for gift value ( $F(1,164) = 95.87$ ,  $p < .001$ ). Participants in the large-gift condition perceived the gift as more valuable than did participants in the small-gift value condition (5.12 vs. 3.16), suggesting successful manipulation of gift value.

*Negative behavioral intentions.* We again collapsed all customer negative behavioral intentions items into a single measure ( $\alpha = .92$ ). The two-way ANOVA on negative behavioral intentions revealed a significant interaction between gift value and the regularity of the gift as shown in Figure 2 ( $F(1,164) = 8.06$ ,  $p = .005$ ). The only significant effect of regularity on negative behavioral intentions was in the large gift condition; participants in the every-time condition were more likely to behave negatively against the restaurant than were participants in the sometimes condition (2.39 vs. 1.65,  $F(1,164) = 12.04$ ,  $p = .001$ ). There was no difference in negative behavioral intentions between the every-time and sometimes conditions when the gift value was small (1.79 vs. 1.79,  $F(1,164) < .001$ ,  $p = .99$ ).

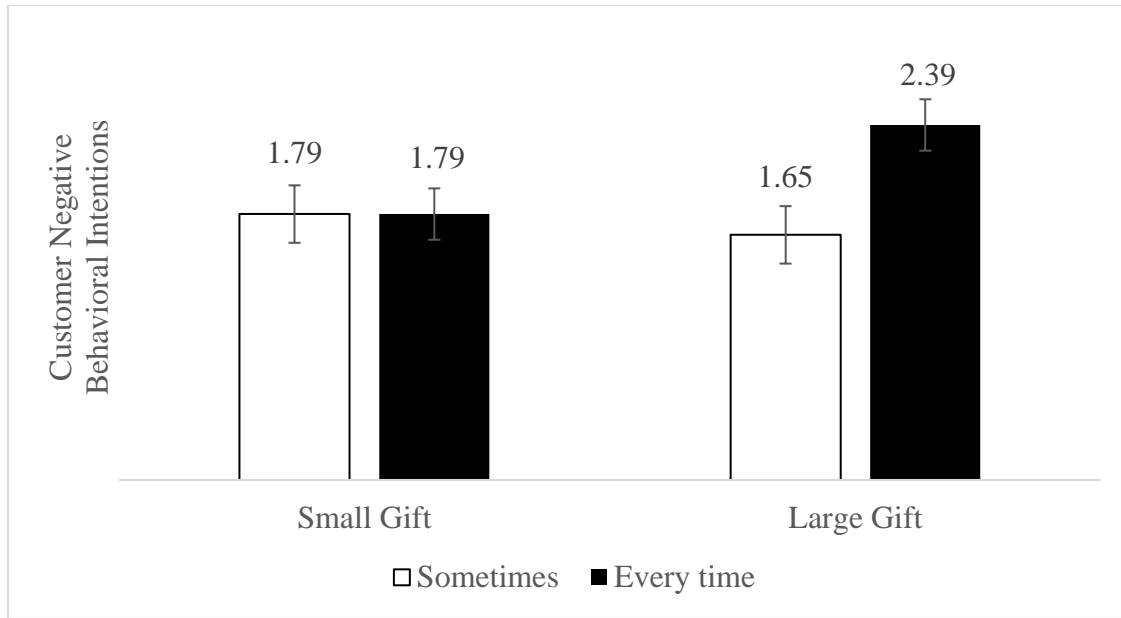


Figure 2-2. Customer negative behavioral intentions are greater in the every-time large gift condition: Study 2.

*Customer entitlement.* We again collapsed the four entitlement items into a single customer entitlement measure ( $\alpha = .90$ ). The two-way ANOVA on entitlement revealed a significant interaction between gift value and regularity of receiving the gift ( $F(1, 164) = 7.44$ ,  $p = .007$ , Figure 3). Regular gift receipt (every-time) increased customers' sense of entitlement relative to random gift receipt (sometimes) only in the high-value gift condition (3.62 vs. 2.33,  $F(1, 164) = 19.10$ ,  $p < .001$ ). No difference in entitlement was found when the gift size was small (2.80 vs. 2.62,  $F(1, 164) = .40$ ,  $p = .53$ ). Thus, we find support for our hypotheses that regularity and gift value are both antecedents of customer entitlement (H1c and H1d) and that they contribute to the effect of unconditional gift-giving termination on customer negative behavioral intentions (H2).

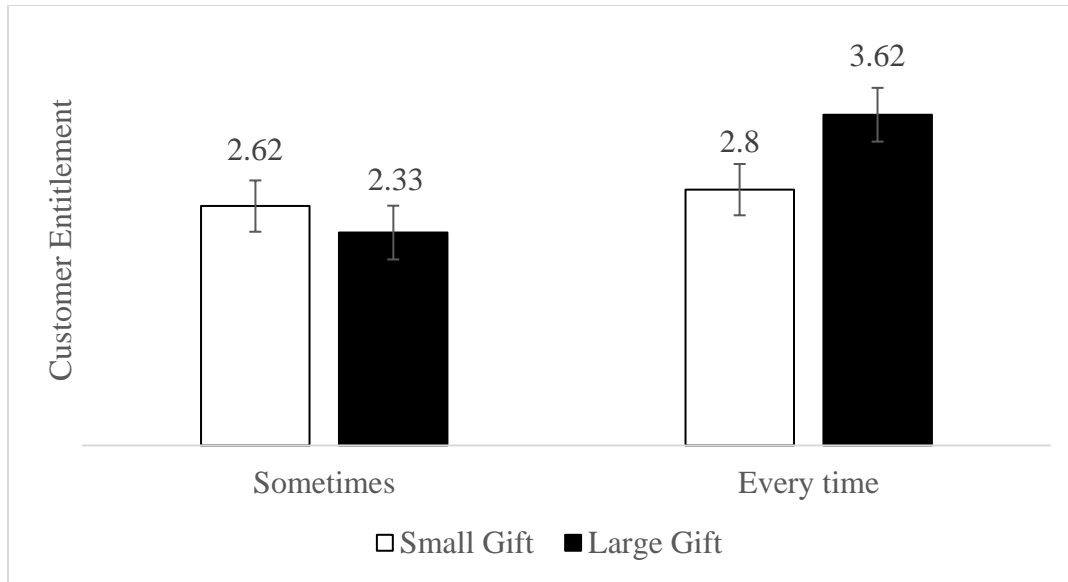


Figure 2-3. Customer entitlement is greater in the every-time, large gift condition: Study 2.

*Mediation test.* We conducted a moderated mediation test using model 8 in the *Process* module of *SPSS* (Hayes, 2012) in which we entered negative behavioral intentions as the dependent variable, regularity as the independent variable, gift size as the moderator, and customer entitlement as the mediator. The results based on a 5,000-iteration bootstrap showed a significant indirect effect at a 95% confidence level ( $B = .29$ ,  $SE = .13$ ,  $CI = [.08, .58]$ ). Additionally, as expected, customer entitlement mediated the effect of regularly provided unconditional gift on negative behavioral intentions when the gift value was large ( $B = .40$ ,  $SE = .18$ ,  $CI = [.04, .76]$ ) but not when the gift value was small ( $B = -.04$ ,  $SE = .16$ ,  $CI = [-.37, .28]$ ).

The results from Study 2 show that terminating repetitively and regularly delivered unconditional business-to-consumer gifts will increase customers' intentions to retaliate against the firm relative to when customers receive unconditional gifts randomly. Again, we found that the effect was mediated by customers' elevated feelings of entitlement. However, the effect was bounded by the value of the gift: a small-value gift did not elicit customer entitlement. Thus, in

Study 2 we replicated our Study 1 findings in a different unconditional business gift setting, and we provided support for two additional hypotheses regarding the antecedents of customer entitlement (H1b and H1d). However, our manipulation of regularity in this study compares high predictability as receiving the gift always (eight times out of eight purchases) versus low predictability as receiving the gift half of the time (four times out of eight purchases). Given that no information was given on whether the gifts were all received with the first four purchases, with one every other purchase, or with the last four purchases, we did not control for the possible additional inference that the single participant might have been made based on the pattern he/she imagined. Additionally, it is possible that with this regularity manipulation we did not control for the total number of gift received. Participants in the every-time condition could have displayed heightened entitlement because they received a free dessert eight times while participants in the sometimes condition received a free dessert only four times. Therefore, to account for this, in Study 3 we will provide participants with information on the gift-giving pattern with which they received unconditional gifts in their past interaction with the firm.

Study 1 and 2 jointly reveal that (1) for customer entitlement to follow business-to-consumer unconditional gift-giving initiatives, *large* (vs. small) value gifts must be offered *repeatedly* (vs. once) and *regularly* (vs. unpredictably); (2) when business-to-consumer unconditional gift-giving initiatives are terminated, *entitled* customers will exhibit negative behavioral intentions towards the firm; and (3) the effect of business-to-consumer unconditional gift-giving termination on customer negative behavioral intentions is mediated by entitlement, gratitude, and negative emotions. The essay focuses on the potential of business-to-consumer unconditional gift-giving initiatives to backfire. Therefore, Study 3 and Study 4 focus on the underlying process of this effect by investigating the role of gratitude as counterbalancing force

and by testing our attribution hypothesis directly.

### **STUDY 3: GIFT REGULARITY AND GRATITUDE BOOST**

In the third study, we test our predictions in a different consumption context, using another type of unconditional business-to-consumer gift to further generalize our results. Moreover, in this next study, we aim at addressing the issues of multiple possible inferred patterns and of total number of gifts received confounds identified with the manipulation of regularity used in Study 2. To do so, in Study 3 we manipulate regularity by providing participants with visual information about the specific pattern in which they are told that they received the gifts in the past and we keep the total number of gifts fixed. Finally, we explore the competing influences of gratitude and entitlement on customers behavioral intentions by directly influencing participants' feelings of gratitude. In Study 1, we showed that gratitude negatively mediates the effect of unconditional gift termination on negative behavioral intentions (H3b), but we also showed that gratitude does not increase with gift repetition. If gift repetition does not boost gratitude, but gratitude does decrease negative behavioral intentions, we predict that alternative ways (i.e., not tied to the gift delivery itself) to boost customers' feelings of gratitude toward the firm will attenuate negative behavioral intentions upon unconditional gift-giving termination. Formally,

**H4.** The impact of business-to-consumer unconditional gift-giving termination on customers negative behavioral intentions is attenuated when customers receive external reminders that boost their gratitude.

## Design and Stimuli

Again, we employed a 2 (regularity: regular pattern vs. random pattern)  $\times$  2 (gratitude boost: present vs. absent) between-subjects design. Participants read that they always bought a \$3 coffee from a coffee shop on their way to work and for the past eight times they did so, four times they received a free cookie worth \$1.5. In the regular pattern condition, they received a free cookie every other time; in the random pattern condition, they received the four cookies in no systematic way (see Appendix B for detailed scenarios). All the participants then read that they went to the coffee shop that day and did not receive a free cookie. In the gratitude boost present condition, participants read a separate page stating that they met a colleague who often went to a different coffee shop and that she stated that she never received any free products there (participants in the gratitude boost absent condition did not read this additional statement).

After reading the scenario, the participants rated their negative behavioral intentions on a version of the scale used in the first two studies in which we removed items associated with online behavior that did not apply to this consumption situation (see Appendix A). Next, we measured participants' level of entitlement and gratitude using the same questions and scale as in the previous studies, and we measured the degree to which they expected to receive a free cookie that day. As manipulation checks, we asked them to rate the repetitiveness and regularity of free cookies received in the past, and, as attention checks we asked to recall how often they had received a free cookie and whether they received one that day.

## Results and Discussion

Two hundred MTurk panelists participated in this third study in exchange for a small monetary compensation. Ten participants (5%) failed one or both attention checks and were removed from the sample, leaving 190 respondents for the analysis (45% male,  $M_{\text{age}} = 36.53$ ,

$SD = 11.72$ ).

*Manipulation check.* We found that regularity and the gratitude boost presence had no significant effects on perceived repetitiveness (all  $p > .14$ ). As expected, participants in the regular pattern condition perceived the free gift as being more regular ( $M = 5.26$ ) than did those in the random pattern condition ( $M = 4.60$ ,  $F(1, 186) = 14.86$ ,  $p < .001$ ). These findings suggest that the regularity manipulation was successful.

*Gratitude.* We averaged the three gratitude items to create a composite gratitude measure ( $\alpha = .95$ ) and submitted it to a two-way ANOVA. The gratitude boost had a significant positive effect on the participants' degree of gratitude ( $F(1, 186) = 1.98$ ,  $p = .001$ ). As we expected, participants in the gratitude boost present condition ( $M = 5.65$ ) felt more grateful towards the coffee shop than did participants in the gratitude boost absent condition ( $M = 5.06$ ). Regularity had no effect on gratitude ( $F(1, 186) = .62$ ,  $p = .43$ ).

*Customer entitlement.* We collapsed the four entitlement items into a single measure ( $\alpha = .88$ ). The two-way ANOVA on this measure revealed that regularity had a marginally significant effect ( $F(1, 186) = 3.20$ ,  $p = .08$ ); participants in the regular pattern condition ( $M = 2.66$ ) felt more entitled than did participants in the random pattern condition ( $M = 2.32$ ). The gratitude boost had no effect on the degree of customer entitlement ( $F(1, 186) = .91$ ,  $p = .34$ ).

*Negative behavioral intentions.* The six negative behavioral intentions items (listed in Appendix A) were collapsed into one measure ( $\alpha = .91$ ), and as shown in Figure 4, the two-way ANOVA on that measure revealed a marginally significant interaction between regularity and negative behavioral intentions ( $F(1, 186) = 3.03$ ,  $p = .08$ ). We found that, in the gratitude boost absent condition, participants who received the gifts following a regular pattern displayed greater



negative behavioral intentions upon gifting termination as compared to participants who received the gifts following a random pattern (2.03 vs. 1.53,  $F(1, 186) = 6.58, p = .01$ ). In the gratitude boost present condition, there was no difference in negative behavioral intentions between the regular and random pattern conditions (1.58 vs. 1.56,  $F(1, 186) = .008, p = .93$ ).

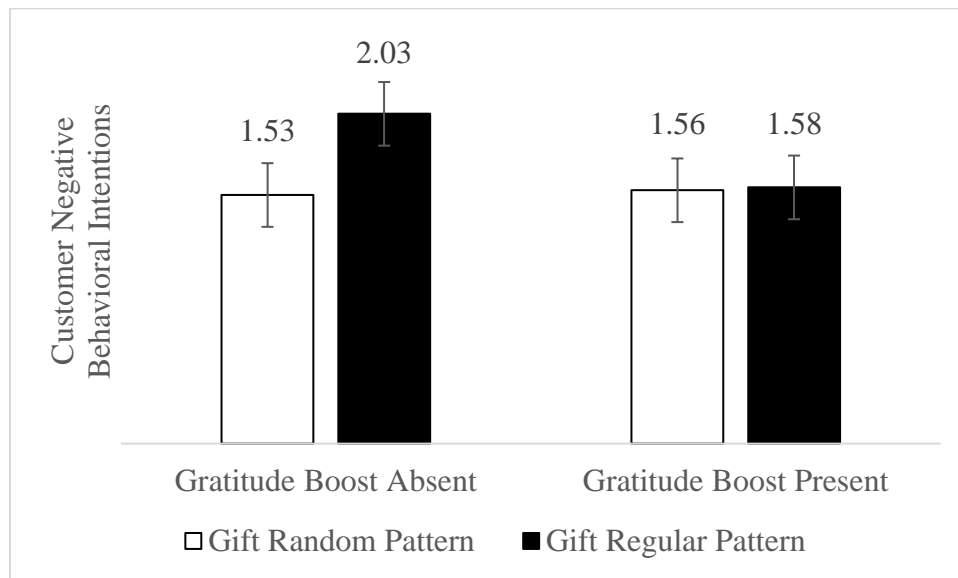


Figure 2-4. Customer negative behavioral intentions are greater in the regular pattern gratitude boost absent condition: Study 3.

Taken together, these results show the same effect of gift regularity on negative behavioral intentions as the previous studies did, but also show that the effect is attenuated when customers feel grateful towards the coffee shop. Thus, the results of this study provide additional evidence of the effect of regularly offering unconditional business-to-consumer gifts on customer negative behavioral intentions once such initiative is terminated. Regularity increases customers' sense of entitlement, which increases their desire to engage in negative behaviors against the firm when they no longer receive the gifts. Furthermore, we find that temporarily increasing customers' feelings of gratitude by reminding them that some firms do not offer unconditional gifts can serve as a buffer against the effects of customer entitlement (H4).

These results also shed light on the relationship between customer entitlement and

gratitude in the context of unconditional business-to-consumer gift-giving. Existing theory has suggested that customer entitlement and gratitude are independent paths that jointly influence firms' financial outcomes (Wetzel et al. 2014). Our study offers empirical evidence that supports this proposition: increasing customer gratitude does not decrease customer entitlement but does weaken the effect of customer entitlement on customer negative behavioral intentions, suggesting that customer entitlement and gratitude are independent influences that have opposing effects on downstream behavioral outcomes.

#### **STUDY 4: GIFT REPETITION AND SELECTION CRITERIA**

In the first three studies, we provided support for our attribution-based causes of entitlement by manipulating attributional antecedents (i.e., customer past purchase frequency, gift repetition, gift regularity, and gift value) and measuring the consequences of such causal inferences (i.e., entitlement). In this next study, we aim to provide direct evidence that customers will indeed become entitled to unconditional business-to-consumer gifts because they infer that the reason they receive them is that they are valuable customers. We proposed customer value inference as the key underlying factor in influencing the effect of unconditional gift-giving on entitlement, and ultimately, customer negative behavioral intentions. If this is indeed the underlying factor, the effect we found in the first three studies should also be found when firms openly state that customer value is their gift recipient selection criterion. On the contrary, the effect should not be obtained when firms provide an explicit selection criterion that contradicts and substitutes the customer value inference, such as when firms explicitly state that gifts are assigned to customers by chance. Formally, we predict that

**H5.** When gift selection criterion is made explicit and it is not congruent with customers'

inferences of being valuable to the firm, customers will not feel entitled and will not exhibit negative behavioral intentions upon gift-giving termination.

In our fourth study, we test this hypothesis with a moderation-of-process experimental design (Spencer et al., 2005) in which we manipulate our process variable. Specifically, in addition to manipulating our independent variable (i.e., gift repetition), we manipulate the process variable (i.e., gift recipient selection criterion) to find support for our process explanation. This approach is especially suited to those situations in which the process variable is hard to measure directly but easy to manipulate. In past research, the validity and reliability of attribution elicitation measurement has been empirically criticized (Howard, 1987), and in our case it is easy to manipulate the information customers have to either confirm or shift their causal inferences. Finally, in addition to testing the valuable customer inference process directly, we conceptually replicate our previous findings by changing the type of unconditional gift to a birthday coupon offered by an online retailer. It could be argued that the typologies of unconditional gifts we used in the first three studies were all tied to having made a purchase, and that entitlement could have been partially driven by the “partial” unconditionality of the gift. To address this issue, in the next study we use a type of unconditional gift that could be repeatedly received without making a purchase (birthday e-mail coupons).

### **Design and Stimuli**

This study also employed a 2 (repetition: every-time gift vs. one-time gift)  $\times$  2 (selection criterion: valuable customer vs. randomly selected customer) between-subjects design. Participants in the every-time gift (one-time gift), valuable customer (randomly selected customer) condition read that they had been shopping for clothes online for the past four years

and had received a \$20 coupon by email on their birthday every year (once). The retailer website overtly stated that birthday coupons were distributed only to valuable customers (randomly to customers). This year on their birthday, they did not receive a birthday coupon from the online retailer. After reading the scenario, the participants rated their negative behavioral intentions using the full scale used in the first two studies. We then measured participants' degree of entitlement and gratitude. As manipulation checks, we asked them to rate how repetitively and regularly they were offered the birthday coupon. As attention checks, we asked them how often they had received a coupon on their birthday and how they had been selected to receive the coupon.

## **Results and discussion**

Two hundred MTurk panelists participated in this study in exchange for monetary compensation. Fifty-one (25.50%) failed at least one of the attention check questions and were removed from the sample, leaving 149 respondents (38% male,  $M_{\text{age}} = 35.97$ ,  $SD = 12.35$ ).

*Manipulation checks.* Compared to participants in the one-time condition, participants in the every-time condition rated the gift receipt as more repetitive (5.50 vs. 2.68,  $F(1, 145) = 134.39$ ,  $p < .001$ ) and more regular (5.22 vs. 2.49,  $F(1, 145) = 111.42$ ,  $p < .001$ ), suggesting successful manipulation of repetition.

*Negative behavioral intentions.* As in the previous studies, the negative behavioral intentions items were collapsed into a single measure ( $\alpha = .94$ ). The two-way ANOVA on this measure revealed a main effect of selection criterion on negative behavioral intentions ( $F(1, 145) = 8.80$ ,  $p = .004$ ). Participants who were informed that they were valuable customers had a greater intent to retaliate ( $M = 2.77$ ) than did customers who were told they were randomly selected ( $M = 2.28$ ) and repetition (every-time gift vs. one-time gift) no longer had an effect on

negative behavioral intentions (2.51 vs. 2.53,  $F(1, 145) = .09, p = .77$ ). These findings suggest that, as predicted in our last hypothesis, the selection criterion eliminated the effect of repetitive unconditional gift-giving termination on customer negative behavioral intentions.

*Customer entitlement.* As in the prior studies, the four entitlement items were collapsed into a single measure ( $\alpha = .90$ ). The two-way ANOVA on this measure revealed that the selection criterion had a marginal effect on entitlement ( $F(1, 145) = 3.50, p = .06$ ), with participants in the valuable customer condition reporting a greater sense of entitlement ( $M = 4.08$ ) than participants in the randomly selected customer condition ( $M = 3.55$ ). Repetition had no effect on sense of entitlement ( $F(1, 145) = 1.37, p = .24$ ).

*Gratitude.* As in the prior studies, the three gratitude items were collapsed into a single measure ( $\alpha = .96$ ). The two-way ANOVA showed that the selection criterion had a significant effect on participants' degree of gratitude ( $F(1, 145) = 12.57, p = .001$ ); participants in the valuable customer condition were less grateful ( $M = 3.42$ ) than participants in the randomly selected customer condition ( $M = 4.27$ ). Repetition had no effect on feelings of gratitude ( $F(1, 145) = .16, p = .69$ ).

*Mediation test.* To determine whether the selection criterion drove customer entitlement and negative behavioral intentions once unconditional gift-giving was terminated, we conducted a test for the conditional indirect effect of repetition on negative behavioral intentions through gratitude and entitlement controlling for negative emotions (see Figure 5). We used model 7 of the SPSS PROCESS macro (Hayes, 2012) and, based on a 5,000-iteration bootstrap, we found that customer selection criterion moderates the effect of gift repetition on entitlement at a 90% confidence level ( $B = .78, SE = .42, CI = [.08, 1.49]$ ). As hypothesized, we find that gift repetition has an effect on customer entitlement only when the stated selection criterion is

randomly selected customer (see Figure 6). Moreover, we found that the index of moderated mediation was significant at the 90% confidence level for entitlement ( $Index = .16, SE = .11, CI = [.01, .36]$ ), but it was not significant for gratitude ( $Index = .05, SE = .13, CI = [-.15, .27]$ ). Specifically, we found that the effect of gift repetition on negative behavioral intentions through entitlement was significant only when the stated selection criterion was the valuable customer one ( $CI_{\text{valuable customer}} = [.03, .28], CI_{\text{random customer}} = [-.14, .08]$ ). These results suggest that when the stated selection criterion was the random customer one, the effect of gift repetition on negative behavioral intentions through entitlement was eliminated. This latter finding provides evidence that the antecedents of entitlement we tested in the previous studies all influence negative behavioral intentions because they serve as attributional antecedents to the inference that customers make about their value to the firm. Once the customer value inference is no longer viable, such as when the criterion is openly stated and in conflict with it, the effect of entitlement antecedents on negative behavioral intentions upon gift-giving termination is inhibited.

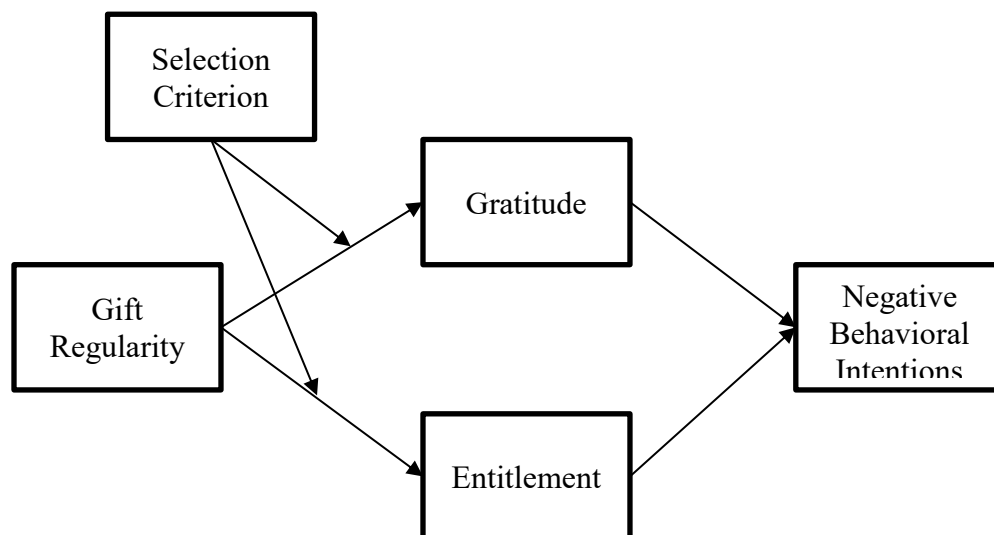


Figure 2-5. Study 4, SPSS PROCESS Model 7.

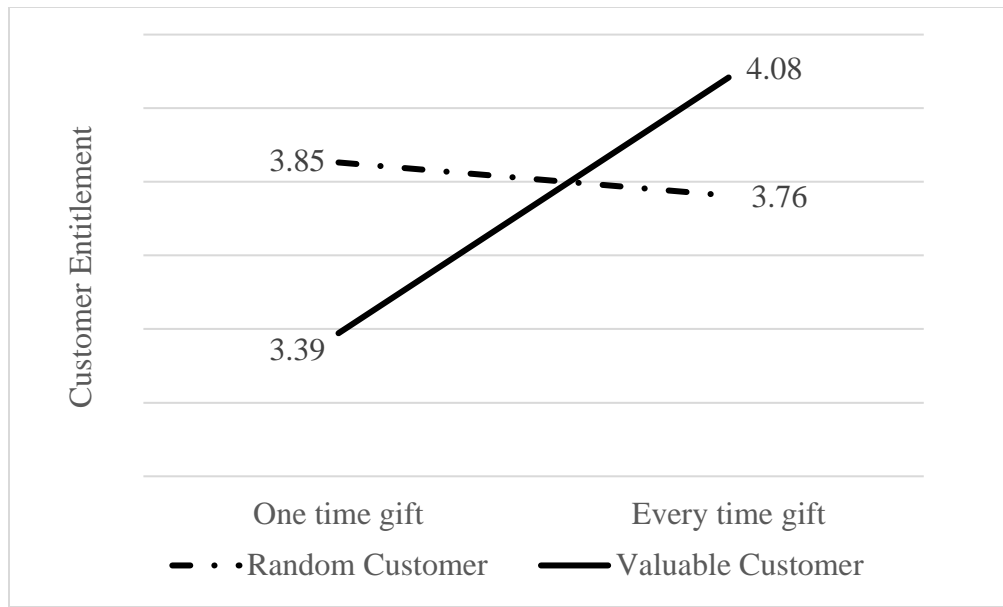


Figure 2-6. Moderation effect of selection criterion on customer entitlement at the two levels of gift repetition.

The results of Study 4 show that explicitly informing customers that they received unconditional gifts because they are valued customers eliminated the effect of gift repetition on their sense of entitlement and on their negative behavioral intentions. Taken together, the findings support our hypothesis that customers' sense of entitlement is based on inferences customer make about their value to the firm. Once customer value is explicitly stated as being the motivation behind the gift, customers no longer need to rely on the firms' actions to make that inference.

## GENERAL DISCUSSION

The results of this research enhance our understanding of how unconditional business-to-consumer gift-giving promotional initiatives can have negative consequences for firms. Contrary to popular wisdom, and consistent with previous literature hinting at potential negative consequences of customer prioritization strategies, we found that unconditional gift-giving initiatives can increase customers' feelings of entitlement, which in turn increase customers' negative behavioral intentions towards the firm once the initiative is terminated. In Study 1, we

showed that receiving unconditional free shipping from an online retailer led to an increase in customer feelings of entitlement only when the free shipping was offered repeatedly (vs. once), but it did not increase as a function of customers' past purchase frequency. Moreover, we found that those customers who felt entitled to the unconditional free shipping expressed higher negative behavioral intentions towards the firm when the gifting stopped as compared to customers who did not feel entitled to it. Finally, we demonstrated that customer feelings of entitlement and of gratitude mediated the effect even when we accounted for customer negative emotions and customer disconfirmed expectations.

Study 2 enhanced the robustness of our findings of unconditional gift-giving termination on customer negative behavioral intentions by generalizing the effect to another type of unconditional gift (i.e., free dessert from a restaurant) and added to the empirical examination of the antecedents of entitlement by examining the influence of gift regularity and gift value. We showed that customers who received a high-value free dessert regularly in the past displayed heightened feelings of entitlement and increased negative behavioral intentions towards the restaurant once they no longer received it. Study 3 revealed that customers who received external reminders that they should feel grateful towards the firm (gratitude boost) no longer displayed negative behavioral intentions towards the firm once the regularly provided unconditional gift was not received.

Taken together, Study 1-3 offered insights regarding which characteristics of business-to-consumer gift-giving initiatives lead to customer entitlement and regarding the opposing roles of customer entitlement and gratitude in influencing customer negative behavioral intentions upon gift-giving termination. Study 4 provided further process evidence by directly testing our proposition that customers develop a sense of entitlement following a causal inference they make



about why they received the gifts. In addition, we further generalized the effect to an unconditional gift that could be repeatedly received by customers regardless of whether a purchase was made (birthday e-mail coupons). We found support for our hypothesized relationship between customers inferring they are valuable to the firm and their sense of entitlement to the gifts by showing that when customers were told that they have been randomly selected to receive birthday coupons in the past, the effect of repeatedly receiving the coupons on entitlement and negative behavioral intentions was eliminated. A summary of our studies and findings is presented in Appendix C.

### **Theoretical Implications**

Numerous studies have demonstrated that business gifts can be an effective tool for building and maintaining good customer relationships (Beltramini, 1992, 2000; Bodur & Grohmann, 2005; Chandon et al., 2000). We show that there are risks associated with terminating gift-giving initiatives that offer relatively high-value unconditional gifts repetitively and regularly. In the process of receiving such gifts over time, customers develop feelings of entitlement and then resent the firm when the gifts cease, leading them to want to engage in negative behaviors against the firm. These results add to previous research investigating the dark side of promotional strategies (Jiang, Hoegg, & Dahl, 2013; Kristofferson, McFerran, Morales, & Dahl, 2017; Wetzel et al., 2014) and to research investigating customers' reactions to loyalty program termination (Melnyk & Bijmolt, 2015; Rehnert, 2016).

To the best of our knowledge, we are the first to investigate the antecedents of customer entitlement in the context of unconditional business gifts. We answer the question of how and why customers feel entitled after receiving unconditional gifts. We show that customers, in the absence of an explicit reciprocation request, infer that they are valuable to the firm. Receiving

valuable unconditional gifts repetitively and predictably leads customers to view themselves as deserving of the gifts. However, when the firm explicitly informs its customers that they are receiving unconditional gifts because they are valued customers, the customers feel entitled to the gifts regardless of how often the gifts are provided. Therefore, our results provide direct evidence that customer entitlement derives from their past experiences with the firm and inferences they make based on those experiences (Boyd III & Helms, 2005b).

Our findings also provide insight into the relationship between customer entitlement and customer gratitude, which are both triggered by customer prioritization strategies such as offering business gifts. Wetzel and colleagues (2014) posited that customer prioritization strategies represented a double-edged sword for the firm and proposed a dual-process model: customer prioritization strategies generate customer gratitude, which increases sales, but also induce customer entitlement, which increases the firm's service cost. However, the mechanism of the dual-process model is unclear about whether gratitude and entitlement affect sales and service costs independently or interdependently, and our results provide evidence that supports independent effects. In our first study, we found that customer entitlement was a function of gift repetition, but customer gratitude was not. In our third study, we found that providing information to boost gratitude did not affect customers' degree of entitlement. We thus conclude that entitlement and gratitude work independently rather than influence each other.

Several prior studies have examined customer negative behavioral intentions resulting from customers' dissatisfaction with firms (Bougie, Pieters, & Zeelenberg, 2003; Grégoire, Laufer, & Tripp, 2010; Hirschman, 1970; Huefner & Hunt, 2000; Kähr et al., 2016; Oliver, 1977). However, literature on customer dissatisfaction focused on situations in which customers dealt with some sort of firms' misconduct (e.g., product or service failures, poor service failure

recovery, unethical behavior). We find that even firms' relationship building efforts designed to unconditionally please customers, if terminated with no exit strategy and/or not strategically designed to be terminated, can cause customer negative behavioral intentions.

### **Managerial Implications**

Reciprocity norms play an important role in sales promotion and loyalty strategies that managers use. According to the norm of reciprocity, people not only should reciprocate when receiving gifts, but they should also not harm their benefactors (Gouldner, 1960). Accordingly, common knowledge might suggest that managers do not need to worry about terminating unconditional business-to-consumer gift-giving initiatives given that customers are not explicitly requested to reciprocate the gifts, nor they are expected to exert effort to gain them. However, we found that even when firms unconditionally spoil their customers with gifts, they cannot escape the trap of customer entitlement unless they know exactly how to design initiatives that will not backfire once terminated. Our results provide actionable managerial insights on how to proactively avoid customer entitlement as well as on how to reactively reduce it when is likely already developed.

To minimize customer entitlement up front, firms should offer business-to-consumer gifts (1) that have a relatively small monetary value, (2) only once or (3) on an irregular basis if offered repetitively. We also found that (4) informing customers that the unconditional gift is offered to randomly selected customers limits customer entitlement. However, this strategy is likely not to comport with the firm objective of building a loyal customer base. We have demonstrated that customers who are directly informed that they are valuable to the firm feel a greater sense of entitlement, which can be detrimental to the firm when the gifting initiative

ends. One way to have customers infer that the gift is truly a randomly provided token of affection could be to deliver unconditional gifts in a way that truly surprises them.

It is important to remind managers that the negative impact of entitlement goes beyond negative behavioral intentions upon initiative termination. Previous research has shown that entitled customers exhibit opportunistic behavior, and are more costly to the firm (Polyakova et al., 2014; Wetzel et al., 2014), and managers should thus be careful in controlling their customers' entitlement in general. To manage existing levels of customer entitlement, firms can try to bolster customer feelings of gratitude. Even though we showed that entitlement and gratitude are independent processes, we also showed that boosting gratitude by simply reminding customers that other firms do not offer unconditional gifts can mitigate the negative consequences of entitlement. Our findings suggest that managers should find ways to elicit gratitude in a more controlled way. We showed that providing unconditional gifts repeatedly does not increase gratitude, but instead increases entitlement through customers' inference-making, and thus firms could try to discreetly guide customer inferences to their favor. For example, they could hint at randomness by saying something like "This birthday coupon is delivered to you and to other 100 lucky customers today." Or they could highlight their generosity "This free cookie is our gift to you today, ask your friends if they received one today at their coffee shop."

Anecdotal evidence found in business news coverage suggests that terminating promotional initiatives can generate a wide variety of customer negative retaliatory behaviors (Mezzofiore, 2016; Ogles, 2005). To add to this additional evidence, we would like to note that some of our participants left comments regarding how they identified with the subject in the scenarios or how they would feel if they were in that situation. For example, one participant from

Study 3 said “I feel the scenario was very real to me, I shop a lot on QVC and every year on my birthday I would get a coupon and then one year I stopped getting it and my shopping amount was still the same and it made me feel like maybe they really didn't care for my business.” Or as a participant in Study 1 said “As a customer, I would hope that the grocery store would notify me before they remove the free shipping. It's disappointing to see a charge that wasn't there with the other orders. Interesting survey!” Altogether, our findings indicate that promotional initiatives termination is a real issue that managers should not underestimate.

### **Limitations and Further Research**

Some limitations of the present research provide direction for future investigations. First, all of our studies dealt with standard business gifts (i.e., free shipping, free product, birthday coupon), as they are the more common ones used and, given our scenario-based methodology, they also are the easier ones to identify with as participants surely received them in real life. However, new technologies and data availability is making it possible for firms to provide highly relevant gifts tailored to their individual customers and delivered when and where they are most likely to enjoy them. Thanks to their own sales data or to social listening tools, firms can know their customers' preferences and, thanks to mobile beacon technologies, they are able to send promotions and unconditional gifts when and where it matters. For example, imagine that a restaurant knows which dessert a customer prefers and sends her a beacon-based proximity promotional message to let her know she has been gifted one for free. In this case, it would be interesting to run a field study to test whether the relevance and/or the timing of the unconditional gifts also generate entitlement or if the surprise effect of receiving the gift works more towards building gratitude.

Second, research should devote more attention to promotional initiative termination

consequences. We found anecdotal evidence of customer dissatisfaction and rage following programs termination, but only a few empirical studies have addressed the issue of loyalty program termination (Melnik & Bijmolt, 2015; Rehnert, 2016). Promotional budgets and objectives change, so it is not usual for firms to terminate their customer prioritization strategies. We provided additional evidence that termination can lead to negative customer behavioral intentions, but we did not examine which strategies could be used for firms to terminate their initiatives without damage. Research might seek to test whether different information policies work best at notifying customers.

Third, beyond termination, it is likely that simply modifying promotional activities might also elicit customer negative behavioral intentions. Therefore, it might be meaningful to explore how customers will react when they are moved to a lower tier of a loyalty program or when their benefits from a promotional initiative are curtailed. Our findings suggest that if past interactions with the firm built up customers' sense of entitlement, such actions might be perceived as unjust and trigger customers' negative reactions.

Fourth, another potential direction for further study is to identify additional ways to mitigate the effect of entitlement on customers negative behavioral intentions and ways to avoid entitlement increase in the first place. Studies have shown that customer entitlement can be induced by situational factors (Kivetz & Zheng, 2006; Zitek et al., 2010); consequently, it should also be possible to reduce customers' sense of entitlement through situational factors. Future studies could explore ways to inhibit situationally triggered entitlement.

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## APPENDIX

### Appendix A. Customer Negative Behavioral Intentions Scale.

Please indicate how likely you are going to engage in the following behaviors if you were in the scenario, where 1 = “extremely unlikely”, and 7 = “extremely likely”.

1. I will talk unfavorably about this online retailer on social media (e.g., twitter, Facebook, etc.).
2. I will leave a negative online review for this online retailer.
3. I will say negative things about this online retailer to other people (e.g. friends, family, co-workers).\*
4. I will contact them and give them a hard time (e.g. call customer service, email them, send a letter to CEO).\*
5. I will actively promote their competitors on social media (e.g., twitter, Facebook, etc.).
6. I will unsubscribe from this online retailer’s loyalty program.\*
7. I will be no longer interested in what this online retailer offers.\*
8. I will stop browsing this online retailer’s website.
9. I will stop supporting this online retailer online (e.g. unlike Facebook page, unfollow them on twitter, delete their pins from my Pinterest account)
10. I will remove this online retailer’s website from my browser bookmarks.
11. I will remove this online retailer’s app from my phone/tablet.
12. I will not purchase from this online retailer again in the future.\*
13. I will start buying groceries from this online retailer’s competitors.\*

\*These items were included in the shortened negative behavioral intentions scale used in study 3.

## Appendix B. Study 3 Scenarios.

### Regular pattern, gratitude boost condition

You often go and buy a coffee at your neighborhood coffee shop on your way to work. Every time you go, you buy a **regular coffee worth \$3**, and sometimes you receive a **free cookie worth \$1.5**.

Here following you see a **diagram representing your last 8 visits to the coffee shop**. It shows how many times you **received a free cookie** with your coffee (**ticked boxes**).



**Today**, you go and buy your coffee and **you do not receive a free cookie**.

(Page break)

While drinking your coffee, you get to the office and one of your colleagues sees your cup and asks about your neighborhood coffee shop.

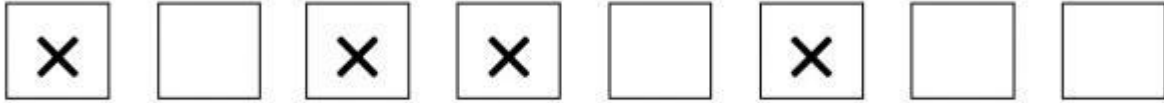
You start talking about the shop and about the fact that today you did not receive the free cookie that sometimes you get. Your colleague talks about her neighborhood coffee shop, and tells you that she never received anything for free with her coffee.

### Random pattern, no gratitude boost condition

You often go and buy a coffee at your neighborhood coffee shop on your way to work. Every time you go, you buy a **regular coffee worth \$3**, and sometimes you receive a **free cookie worth \$1.5**.



Here following you see a **diagram representing your last 8 visits to the coffee shop**. It shows how many times you **received a free cookie** with your coffee (**ticked boxes**).



**Today**, you go and buy your coffee and **you do not receive a free cookie**.

## Appendix C. Overview of studies main findings.

Experiment	Study Design	Unconditional B2C Gift	Key Results
STUDY 1: GIFT REPETITION AND PAST PURCHASE FREQUENCY	2 (repetition of unconditional gift: every-time gift vs. one-time gift) $\times$ 2 (customer past purchase frequency: eight times vs. four times) between-subjects design	Free Shipping (online, with purchase)	<ul style="list-style-type: none"> <li>• <b>Main effect of repetition:</b> when the retailer stops providing a gift that was offered repeatedly before (vs. offered once before) participants' negative behavioral intentions towards the retailer increase.</li> <li>• <b>Past purchase frequency</b> does not positively moderate the main effect.</li> <li>• Participants' feelings of <b>entitlement</b> increase with gift repetition whereas their <b>gratitude</b> towards the retailer does not.</li> <li>• The main effect of repetition is <b>mediated by entitlement</b> even after considering the mediating effect of participants' negative emotional response and gift expectation.</li> </ul>
STUDY 2: GIFT REGULARITY AND GIFT VALUE	2 (regularity: every-time vs. sometimes) $\times$ 2 (gift value: large vs. small) between-subjects design	Free Dessert (offline, with purchase)	<ul style="list-style-type: none"> <li>• <b>Main effect of regularity:</b> when the retailer stops providing a gift that was offered regularly before (vs. offered randomly) participants' negative behavioral intentions towards the retailer increase.</li> <li>• The main effect is <b>moderated by gift size</b>. When the retailer stops gifting, participants' entitlement and negative behavioral intentions towards the retailer increase only in the large-size gift condition.</li> </ul>
STUDY 3: GIFT REGULARITY AND GRATITUDE BOOST	2 (gift regularity: regular pattern vs. random pattern) $\times$ 2 (gratitude boost: present vs. absent) between-subjects design.	Free Cookie (offline, with purchase)	<ul style="list-style-type: none"> <li>• <b>Main effect of regularity:</b> when the retailer stops providing a gift that was offered regularly before (vs. offered randomly) participants' negative behavioral intentions towards the retailer increase.</li> <li>• For participants in the <b>gratitude boost</b> condition, there was no difference in negative behavioral intentions between the regular and random conditions.</li> </ul>
STUDY 4: GIFT REPETITION AND SELECTION CRITERIA	2 (gift repetition: every-time vs. once) $\times$ 2 (gift selection criterion: selection criterion: valuable customer vs. randomly selected customer) between-subjects design.	Birthday Coupon (online, no purchase)	<ul style="list-style-type: none"> <li>• <b>Main effect of repetition:</b> when the retailer stops providing a gift that was offered repeatedly before (vs. offered just once) participants' negative behavioral intentions towards the retailer increase.</li> <li>• The main effect is <b>moderated by selection criteria</b>. Participants who are informed that they are <b>valuable</b> customers display stronger feelings of entitlement and negative behavioral intention as compared to those who are told that are randomly selected.</li> </ul>

## ESSAY THREE

# Can't Touch Me: The Effect of Loneliness on Preference for Haptic Consumption Experiences

### ABSTRACT

Common wisdom suggests that feeling lonely prompts individuals to seek comfort and reconnection with others, such as through touching or being touched. In the field of consumer behavior, new product features and services are being designed to compensate for the lack of human interaction and haptic sensations in mediated communication and online shopping. However, the present research shows that chronically lonely individuals shy away from interpersonal interactions involving touch. Because chronic loneliness creates a negative-feedback loop that reinforces loneliness, lonely individuals report lower levels of interpersonal trust and report feeling less comfortable touching and being touched by others. We also provide evidence that this discomfort spills over to in-store interaction with salespeople and other customers. Specifically, lonely individuals eschew both accidental and purposeful touch interactions. Together, these findings provide initial evidence that consumers differ in their preference for haptic engagement. Recent studies have shown that loneliness is widespread among millennials and, if most shoppers are characterized by high trait loneliness, marketers' investments in the field of haptics might be unwarranted.

*Keywords:* Loneliness, touch, social reconnection, interpersonal trust

*We are all so much together, but we are all dying of loneliness.*

*— Albert Schweitzer*

## **INTRODUCTION**

We live in an era of “connectedness” and “social networking” in which the average person spends 135 minutes a day on social media (GlobalWebIndex 2017). Nevertheless, the modern-day loneliness epidemic and its adverse health and well-being consequences is a topic increasingly discussed on all major news media outlets (Irving 2018; Klinenberg 2018; Noack 2018). Even though social media outlets aim to connect people, it is possible that instead they are doing exactly the opposite. From what media report, it seems that the countries for which the loneliness epidemic is stronger are the ones with the highest social media usage, and the age group most affected by feelings of loneliness is that of young, tech-savvy individuals. In line with this observation, an increasing number of studies investigating the adverse consequences of digital technology and social media usage report that loneliness is highly correlated with time spent on those platforms (Peper and Harvey 2018; Primack et al. 2017). Given that this technological and societal trend is unlikely to be reversed, it is important to study loneliness, how it works, and its downstream consequences for consumption.

Loneliness is an aversive negative emotion, and numerous studies have shown that consumption of certain goods might help alleviate it (Mourey et al. 2017; Troisi and Gabriel 2011; Zhou et al. 2008). Usually, products and services that provide some sort of social reconnection are sought (Chen et al. 2017; Lastovicka and Sirianni 2011; Wang et al. 2012). Another possible avenue to social reconnection, which is the focus of this research, might be through interpersonal touch. Research shows that interpersonal touch fosters many positive outcomes, such as increasing positive affect, increasing persuasion and compliance, increasing

oxytocin (i.e., “the cuddle hormone”), and acting as a salient reminder of social inclusion (Gallace and Spence 2010). In the present research, we focus on haptic consumption experiences as means for consumers to achieve social reconnection. Haptic is defined as something relating to or based on the sense of touch, and thus we concentrate on all consumption activities that are conducive to or have a component of interpersonal touch (e.g., getting a clothing item custom-tailored).

Concurrently with the loneliness epidemic, evidence suggests that people are also facing a crisis of touch, meaning that modern-day interactions among individuals lack a component of interpersonal touch (Cocozza 2018). However, human beings have an inherent need for interpersonal touch and social connectedness that begins at infancy (Gallace and Spence 2010). Therefore, to make up for this frustrated human need for touch and connectedness, consumer products and services that offer haptic experiences are increasingly being offered in the marketplace. A product example is Quooobo,<sup>13</sup> is a therapeutic robot shaped as a cushion with a wagging tail, like that of a cat, which supposedly serves to heal by relieving stress. A service example is Cuddlist.com<sup>14</sup>, a website where people can book a therapeutic cuddle session with a professional cuddler.

New product features and services are also being designed to compensate for the lack of human interaction and haptic sensations in mediated communication forms (i.e., hapticons; Haans and IJsselsteijn 2006). For example, the HugShirt<sup>15</sup> is a wearable device that looks like a regular T-shirt but allows consumers to send each other hugs the same way they send each other text messages. Consumer research on touch so far has investigated individual differences in the

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<sup>13</sup> <http://qoobo.info/?lang=en>

<sup>14</sup> <https://cuddlist.com/>

<sup>15</sup> <http://cutecircuit.com/the-hug-shirt/>

propensity to touch, situational difference encouraging touch, product attributes encouraging touch, and the influence of touch on consumer decision-making (Jansson-Boyd 2011; Peck and Childers 2008). However, to our knowledge, no research has investigated the interplay between haptic consumption experiences and loneliness. We believe that addressing this gap is increasingly important for today's society in which people are facing crises of both loneliness and touch, which are driving marketing investments in developing therapeutic products and services.

Common wisdom would suggest that such marketing investments are warranted and that a lonely consumer would be more likely to seek or have a more favorable view of consumption experiences with a haptic component. However, counterintuitively, in our research we observe just the opposite. Across a series of studies, we show that chronic loneliness is negatively correlated with comfort with interpersonal touch. We show that this relation is mediated by interpersonal trust: chronic loneliness is associated with less interpersonal trust, which in turn is associated with less comfort with interpersonal touch. Finally, we show that this discomfort with interpersonal touch spills over to in-store interactions with salespeople and other customers, such that chronically lonely consumers avoid rather than seek out situations that involve interpersonal touch.

## **THEORETICAL BACKGROUND**

Loneliness is defined as an *aversive* and distressing *subjective* experience stemming from the perception that one's social relationships are deficient (Perlman and Peplau 1981). The experience of feeling lonely is so aversive and distressing that researchers have linked it to a variety of negative consequences, such as decreased life satisfaction, eating disorders, alcohol abuse, poor sleep quality, and cardiovascular diseases, just to name a few (Cacioppo et al. 2000;

Cacioppo and Patrick 2008; Hawkley and Cacioppo 2010). Heinrich and Gullone (2006) argue that loneliness is difficult to observe directly because it is a subjective experience, but they offer a description of affective, cognitive, and behavioral traits that together constitute a lonely prototype. Affective features include feelings of despair, depression, impatient boredom, and self-deprecation; cognitive traits include low self-esteem, misanthropy, and social alienation; behavioral aspects consist of inhibited sociability and ineffectiveness. Lonely individuals not only hold negative views about themselves, but they also see others less favorably. Loneliness leads to feeling unsafe and elicits hypervigilance for social threats in the environment, which produces negative cognitive biases in interpreting interpersonal encounters. Compared to non-lonely individuals, lonely individuals have negative social expectations from others, which then result in self-fulfilling prophecies (e.g., expecting more negative social interactions, remembering more negative social information), which in turn reinforces their feelings of loneliness. Hawkley and Cacioppo (2010) refer to this process as a “self-reinforcing loneliness loop.”

Apart from aversiveness and distress, researchers emphasize another important component of the definition of loneliness, namely its subjective nature, which differentiates it from mere social isolation. In fact, individuals constantly assess the discrepancy between the quality and quantity of the social relationships they desire and of the social relationship they currently have regardless of whether they are objectively lonely (West et al. 1986). Therefore, loneliness can be elicited, but is not necessarily a synonym, of social isolation or exclusion. For this reason, loneliness researchers emphasize another important distinction, that between transient, situational, and chronic loneliness (Gerson and Perlman 1979; Young 1982). Transient loneliness refers to feelings that individuals might experience from time to time in their everyday

lives, whereas situational loneliness is usually associated with comparatively longer periods of social isolation, such as when individuals move to another city, leaving their social connections behind (Shaver et al. 1985). A third, more impactful type of loneliness is chronic loneliness, which refers to an experience of social disconnection that lasts for years. This distinction between momentary and chronic feelings of loneliness is important because the negative consequences of loneliness are correlated with its duration. In other words, chronically lonely individuals are more likely to display the dysfunctional cognitions, emotions, and behaviors associated with loneliness than situationally lonely individuals will (Heinrich and Gullone 2006).

### **The social reconnection hypothesis**

Social connections are so essential for human health and well-being that people should be highly motivated to restore them when lost (Baumeister and Leary 1995). Accordingly, the social pain we feel when experiencing loneliness should motivate people to seek meaningful social connections (Cacioppo and Patrick 2008). The social exclusion literature provides a rich store of examples that supports this motivational impulse to pursue human reconnection. According to a review by Molden and Maner (2013), there are three main ways in which people attempt to restore feelings of social connectedness: 1) ingratiating social behaviors (e.g., conformity, Mead et al. 2011); 2) sensitivity to social cues (e.g., attention to smiling faces; DeWall et al. 2009), and 3) expanded perceptions of social connection (e.g., parasocial relationships with fictional characters; Derrick et al. 2009). Nonetheless, there are several empirical findings that contradict this “social reconnection hypothesis,” and indicate that loneliness is likely to produce qualitatively opposite responses such as social reconnection avoidance and even aggressiveness (Maner et al. 2007; Park and Maner 2009; Twenge et al. 2001).

These mixed findings linking social exclusion with desire and avoidance for social



reconnection prompted a stream of research investigating the specific instances in which exclusion and loneliness prompt or hinder the motivation for social reconnection (Molden and Maner 2013). A careful review of the findings reveals that powerful negative emotions stemming from the experience of exclusion, such as loneliness and anxiety, are responsible for the missing reconnection attempts, as they increase 1) prevention-focused concerns of safety and security (Lucas et al. 2010); 2) doubts about the ability of connecting with certain individuals (e.g., exclusion perpetrator; Maner et al. 2007); and 3) fears about being negatively evaluated by others (e.g., social anxiety; Mallott et al. 2009). Social exclusion research and loneliness are deeply intertwined, as feelings of loneliness often stems as results of rejection. However, it is important to note that loneliness is a subjective experience, and it becomes a trap only once it is hardwired in people's brains. Thus, all the negative emotions, cognitions, and behaviors that prevent individuals from seeking social reconnection become an issue of serious concern only when loneliness becomes chronic and creates a self-reinforcing loop (Cacioppo and Patrick 2008; Hawkey and Cacioppo 2010). Based on the arguments outlined above, in the present research we posit that chronically lonely and situationally lonely individuals will differ in the likelihood that they will seek social reconnection. Specifically, situationally lonely individuals will seek interpersonal reconnection, whereas chronically lonely individuals, who are trapped in their hypersensitivity to negative social cues, will not.

### **The power of touch**

The most basic way in which humans connect and communicate is through touch. In fact, the first and most fundamental type of interpersonal connection humans experience in life is the one of the mother's touch (Harlow 1958). Later in life, touch enhances all other types of visual and verbal communication. Research shows that up to eight fundamental human emotions can be

effectively communicated to others just by touching them on the arm (Hertenstein et al. 2006, 2009). Touch thus provides a strong channel of interpersonal communication and connection (i.e., social touch; Gallace and Spence 2010). Moreover, touch has been shown to have a wide variety of positive and even healing properties. In psychotherapy, researchers advocate for the use of interpersonal touch for therapeutic purposes (Young 2007). Interpersonal touch can reduce pain, anxiety, depression, and aggressive behavior, as well as promote immune function, lower heart rate, and decrease blood pressure (Field 2003).

Linking the physiological and social world, research in social neuroscience reveals that there is a powerful link between the oxytocin hormone, typically produced in interpersonal touch interactions, and the formation of social bonds. Oxytocin increases the salience of social approach-related cues and decreases the salience of threat-related ones (Norman et al. 2012). Following this line of reasoning, we posit that interpersonal touch helps foster interpersonal connections and can be regarded as an opportunity for lonely individuals to regain the social connectedness they pursue. Theoretically, lonely individuals should welcome interpersonal touch interactions and consumptions experiences with a haptic component because they should help them restore feelings of social connectedness. However, given the negative consequences of the loneliness self-reinforcing loop that plague chronically lonely individuals, we posit that haptic-related consumer experiences as form of social reconnection will only be pursued by situationally lonely individuals. Formally,

**H1.** Chronically lonely individuals will eschew haptic-related consumer experiences.

**H2.** Situationally lonely individuals will seek haptic-related consumer experiences.

In the consumer behavior domain, interpersonal touch has been shown to increase compliance with various typologies of requests such as ones for charitable donations, participation in surveys, and taste of in-store samples (Peck 2010; Peck and Wiggins 2006). Given the power of touch in eliciting compliance and favorable attitudes towards a target person, touch has been widely studied in the context of salespeople-customer interactions (Hornik 1992). For example, research has shown that waitresses get better tips if they briefly touch customers' hands, referred to as the "Midas effect;" (Crusco and Wetzel 1984), and that customers are more likely to follow food suggestions when they are touched by the server (Guéguen et al. 2007). Overall, haptic-related consumption experiences (consumption experiences that include a touch component, such as getting a haircut) or in-store interactions with salespeople (e.g., gentle stroke on the customer's arm), have been shown to increase compliance, produce positive affect and attitudes towards the target person or salesperson, and increase willingness to purchase products.

However, other research suggests that not all people have the same preferences when it comes to product touch or interpersonal touch. Regarding product touch, Peck and Childers (2003) posited that consumers differ in their need to touch products, and developed a need for touch scale (NFT) to assess consumers' preferences for haptic engagement with products. Specifically, some consumers might need to touch products because it is a pleasurable and fun experience (i.e., autotelic need for touch), and some consumers might need to touch products to ascertain information about quality (i.e., instrumental need for touch). Regarding interpersonal touch, Webb and Peck (2015) established that individuals also differ in their comfort with interpersonal touch (CIT), and developed a scale to measure comfort with receiving and initiating interpersonal haptic interactions. Therefore, even though haptic interactions in consumption contexts have been shown to have positive effects for consumers and marketers, not all

consumers will necessarily equally welcome or enjoy such haptic interactions. For example, chronically lonely consumers typically feel unsafe when it comes to social interactions and, given their hypervigilance for potential social threats and their heightened social anxiety, will likely feel uncomfortable with interpersonal touch.

One of the many explanations that researchers put forward to explain why interpersonal touch elicits heightened compliance with the requests of strangers is that touch implies that the individuals involved trust each other (Rose 1990). In fact, by its very definition, interpersonal trust is defined as the perception that others have no intention to harm you and they have your best interest at heart (Rotter 1971). However, as we argued before, chronically lonely individuals display social negative cognitions and are unlikely to trust others because loneliness causes them to use defensive perceptions in situations that are actually neutral or benign. Therefore, we posit that chronically lonely individuals, but not momentarily lonely ones, will refrain from engaging in haptic-related consumer experiences because they lack generalized trust in others, which in turn makes them less comfortable with receiving and initiating interpersonal touch. Formally,

**H3.** Chronically lonely individuals' lower willingness to engage in haptic-related consumer experiences is mediated by lower interpersonal trust and by comfort with interpersonal touch (serially, in that order).

A depiction of our conceptual model is presented in Figure 1.

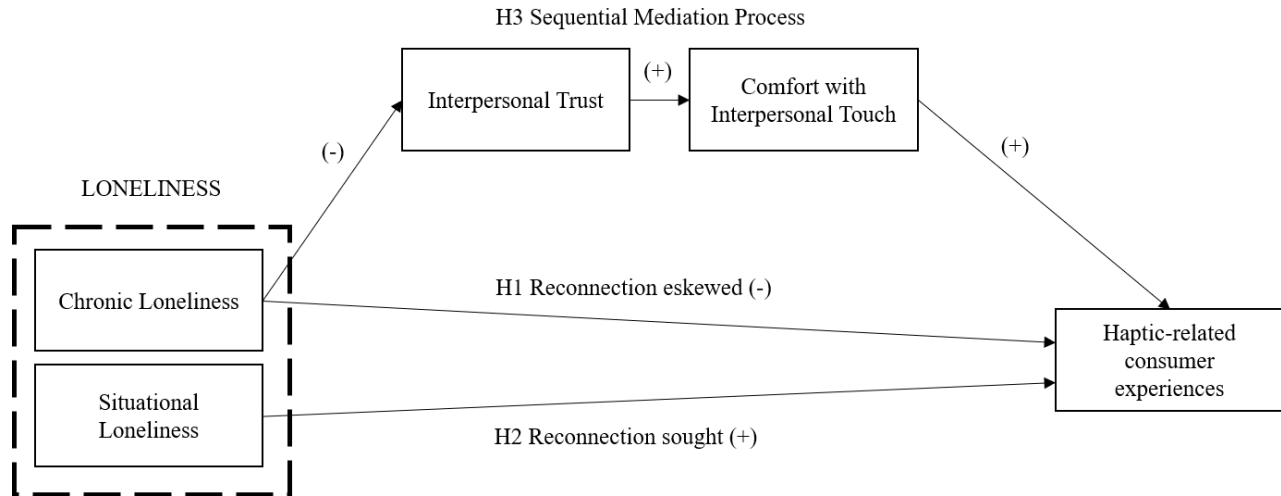


Figure 3-1. Conceptual Model and Hypotheses.

## STUDY 1: CHRONIC LONELINESS, TRUST AND TOUCH

The main objective of Study 1 is to test our predictions that chronically lonely individuals will eschew haptic-related consumer experiences (H1), and that they do so because of lower levels of interpersonal trust and of comfort with interpersonal touch (H3), which are positively correlated with preferences for in-store haptic experiences. Thus, we expect that the negative relation between chronic loneliness and preferences of in-store haptic experiences will be serially mediated by levels of interpersonal trust and of comfort with interpersonal touch, respectively.

A secondary objective of Study 1 is to rule out the alternative explanation that lonely consumers might not only be eschewing interpersonal haptic-related consumption experiences, but product haptic-related ones as well. Even though research in consumer behavior has shown that product touch has important consequences for consumption (i.e., impulse buying; Peck and Childers, 2006; positive affect towards products; Peck and Wiggins, 2006) and that some consumers have an increased need to gather product information through tactile interaction with products (need for touch; Peck and Childers, 2003), there is no evidence that engaging in product touch acts as a compensation for social connectedness threats nor that product touch has any

relationship with interpersonal trust. Thus, we expect that the negative relationship between chronic loneliness and preference for haptic-related consumption experiences will only hold for interpersonal touch experiences and not for product touch ones. In fact, according to our theorizing, the negative relationship is mediated by interpersonal trust (H3) and, consequently, touching inanimate objects will not be problematic as it is not seen as a social reconnection opportunity nor it involves trusting someone.

According to the self-reinforcing loneliness loop, chronic lonely individuals tend to have negative social expectations from interactions with others, and these expectations tend to be accompanied by generalized feelings of stress and anxiety (Hawkley and Cacioppo 2010). Therefore, it could be argued that there might be other anxiety-related processes, beyond our hypothesized lack of interpersonal trust (H3), explaining the link between chronic loneliness and diminished likelihood to engage in touch. In particular, anxiety related to touching objects might be explained by individuals' obsessive-compulsive fear of becoming contaminated (Deacon and Olatunji 2007) and anxiety related to touching others might be explained by individuals' low propensity for social risk taking (Blais and Weber 2006). Accordingly, for exploratory purposes we add these two ancillary measures in this study: contamination cognitions and social risk taking.

## **Method**

*Participants and procedure.* One hundred and ninety-nine participants (57% men;  $M_{\text{age}} = 31.93$  yrs.,  $SD = 11.61$ ) were recruited from the United Kingdom through Prolific Academic in exchange for a small monetary compensation. First, as part of a “consumer personality study,” all participants completed scales related to interpersonal and product touch, a measure of interpersonal trust, a measure of their contamination cognitions, and a measure of

social risk taking, in that order. Next, participants completed an ostensibly unrelated “shopping experience study” that measured their attitudes toward aspects of their in-store shopping experiences, and then, as part of a separate “scale development study,” completed a scale that measured chronic loneliness. Finally, participants were asked to provide basic demographic information and thanked for their collaboration.

*Measures.* We measured chronic loneliness with the UCLA chronic loneliness scale (Russell 1996). We measured comfort with *interpersonal* touch with the comfort with interpersonal touch scale (Webb and Peck 2015) and we measured the specific need for *product* touch with the need for touch scale (Peck and Childers 2003). To measure participants’ level of interpersonal trust, we used the generalized trust scale (Yamagishi and Yamagishi 1994). For complete scale measures, see Appendix A.

To measure attitudes towards haptic-related consumer experiences, we used four items, two of which measured haptic *interpersonal* interactions (“I like when a store is designed to encourage sales personnel to approach customers,” “I like when a store is designed to encourage customers to interact with each other,”) and two of which measured haptic *product* interactions (“I like when a store is designed to encourage customers to touch products,” “I like when a store is designed to neatly display products in Plexiglas cases,” along a 7-point scale (1 = “strongly disagree; 7 = “strongly agree”).

To measure fear of contamination and contagion, we used selected items<sup>16</sup> of the contamination cognitions scale (Deacon and Olatunji 2007) and to measure domain-specific risk-taking, we used the social domain subscale of the domain-specific risk-taking scale (Blais and Weber 2006). See Appendix B for all items.

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<sup>16</sup> We used items 1,4,5,8,11, and 13 of the full scale to shorten the overall survey.

## Results and Discussion

*In-store haptic interactions.* Before we created the two composite measures for in-store interpersonal and in-store product haptic experiences, we conducted a factor analysis to verify the bi-dimensionality of our criterion variable. A factor analysis of the current results was performed using the Principal Components method of extraction. Bartlett's test of sphericity, which tests the overall significance of all the correlations within the correlation matrix, was significant ( $\chi^2(6) = 133.12, p < .01$ ), indicating that it was appropriate to use the factor analytic model on this set of data. The Kaiser-Meyer-Olkin measure of sampling adequacy indicated that the strength of the relationships among variables was low but acceptable to proceed with the analysis (KMO = .55). As expected, the analysis yielded the extraction of two factors with eigenvalues greater than one and explaining 76% of the total variance. A Varimax rotation was performed and the obtained pattern matrix is displayed in Table 1. The pattern matrix in Table 1 revealed factor one to consist of two items. This factor was labeled "In-store people interaction" and demonstrated a high internal consistency ( $\alpha = .77$ ). The second factor consisted of the other two items and it was identified as "In-store product interaction" but reflected a poor internal consistency ( $\alpha = .24$ ).

Rotated Component Matrix <sup>a</sup>		
	Component	
	1	2
I like when a store is designed to encourage sales personnel to approach customers.	<b>.888</b>	-.007
I like when a store is designed to encourage customers to interact with each other.	<b>.852</b>	.025
I like when a store is designed to neatly display products in Plexiglas cases.	.365	<b>.775</b>
I like when a store is designed to encourage customers to touch products.	.416	<b>-.733</b>

Note. Factor loadings > .50 are in boldface.

Extraction Method: Principal Component Analysis.

a. Rotation converged in 3 iterations.

Table 3-1. Factor Analysis In-store Haptic Features Items, Study 1.

*Hypothesis Testing.* To test our hypothesis that chronic loneliness would negatively



correlate with in-store haptic interactions (H1) and that it would also negatively correlate with interpersonal trust and comfort with interpersonal touch (H3), we first created all composite measures of our variables of interest, and then we performed correlation analyses to explore the relations among them. Descriptive statistics and correlational results are summarized in Table 1.

As expected, results of the Pearson correlation indicated that there was a significant negative correlation between chronic loneliness and in-store people interaction ( $r(197) = -.17, p = .015$ ), and significant negative correlations between chronic loneliness and both interpersonal trust ( $r(197) = -.39, p < .01$ ) and comfort with interpersonal touch ( $r(197) = -.31, p < .01$ ).

Unexpectedly, there was a marginally significant negative correlation between chronic loneliness and in-store product interaction ( $r(197) = -.13, p = .08$ ) calling for further investigation to rule out the alternative that chronically lonely people eschew both interpersonal and product haptic interaction. If chronic loneliness was indeed related to in-store product interaction, we should have found that it correlated not only with comfort with interpersonal touch, but also with need for touch. However, our results seem to indicate that chronic loneliness is negatively related to touch that is interpersonal, rather than to touch in general.

Measure	Correlations											
	1	2	3	4	5	6	7	8	9	10	11	12
1. Chronic loneliness	-											
2. Comfort with Intepersonal Touch (CIT)	-.313**	-										
3. CIT initiating	-.307**	.875**	-									
4. CIT receiving	-.259**	.914**	.603**	-								
5. Need for Touch (NFT)	-.034	.264**	.318**	.168*	-							
6. NFT Instrumental	-.013	.179*	.219**	.110	.898**	-						
7. NFT autotelic	-.046	.294**	.350**	.190**	.934**	.682**	-					
8. Interpersonal trust	-.391**	.365**	.285**	.362**	.109	.085	.113	-				
9. In-store product interaction	-.125°	.211**	.209**	.174*	.486**	.405**	.480**	.110	-			
10. In-store people interaction	-.173*	.372**	.359**	.312**	.302**	.266**	.285**	.157*	.011	-		
11. Contamination Cognitions	.114	.031	.170*	-.092	.128°	.152*	.090	-.094	-.014	.063	-	
12. Social Risk Taking	-.060	.086	.013	.131°	.037	.028	.039	.043	.050	-.030	.106	-
M	2.96	3.21	2.56	3.85	4.11	4.28	3.93	4.50	4.50	3.07	20.56	4.94
SD	.78	1.42	1.45	1.73	1.39	1.36	1.67	1.05	1.14	1.54	8.74	1.05
$\alpha$	.94	.91	.88	.94	.95	.90	.95	.88	.24	.77	.93	.73

°p < .10 \*\*p < .05 \*\*\*p < .01

Table 3-2. Measured Variables: Correlations and Descriptive Statistics (N = 199).

Based on our third hypothesis, we also predicted that interpersonal trust and comfort with interpersonal touch would serially mediate the relation between chronic loneliness and interpersonal in-store haptic preferences. We tested for the hypothesized serial mediation using PROCESS Model 6 (Hayes 2013), with the expectation that chronic loneliness will affect interpersonal trust, which in turn will affect comfort with interpersonal touch, which in turn will affect in-store *interpersonal* haptic-related preferences. Also, we expected that the negative relationship between chronic loneliness and in-store haptic-related preferences would not apply to *product* haptic-related preferences.

When we tested the model with in-store *people* interaction as criterion variable, as expected, the indirect effect of chronic loneliness on in-store haptic interactions through interpersonal trust and comfort with interpersonal touch (serially, in that order) was significant ( $\beta = -.08$ ,  $SE = .03$ , 95% CI  $[-.16 \text{ } -.03]$ , based on 5,000 bootstrap samples). Moreover, the total effect of chronic loneliness on in-store people interaction was significant ( $\beta = -.34$ ,  $t(197) = -2.46$ ,  $p = .01$ ) whereas the direct effect was not ( $\beta = -.12$ ,  $t(197) = -.83$ ,  $p = .41$ ). These results are consistent with our expectation that chronically lonely participants display negative attitudes towards people interactions more than non-lonely participants do (H1). Additionally, results show that interpersonal trust and comfort with interpersonal touch serially mediate the relation between chronic loneliness and reduced preference for interpersonal haptic-related consumer experiences (H3, Figure 2).

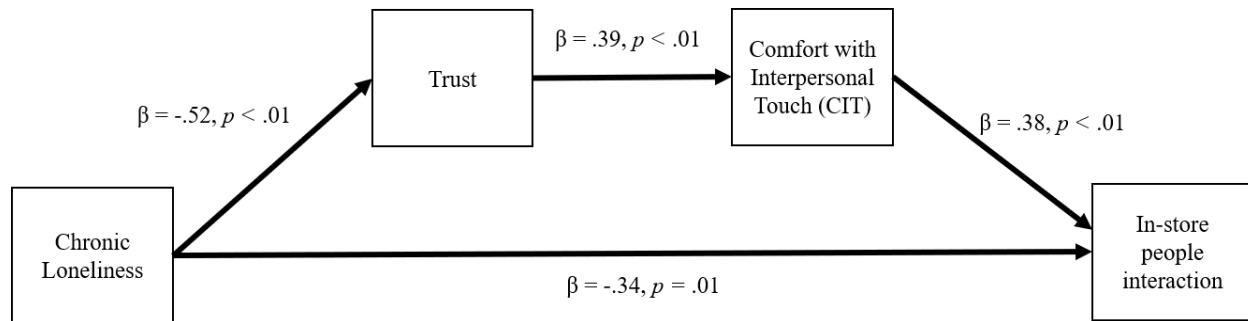


Figure 3-2. Serial mediation model of chronic loneliness on in-store people interaction, PROCESS Model 6.

Next, to rule out the alternative explanation of product interaction, we tested the same model with in-store *product* interaction as criterion variable. The results of our analyses showed that the indirect effect of chronic loneliness on in-store haptic interactions through interpersonal trust and comfort with interpersonal touch (serially, in that order) was significant ( $\beta = -.03$ ,  $SE = .02$ , 95% CI  $[-.07 \text{ } -.01]$ , based on 5,000 bootstrap samples). Moreover, the total effect of chronic loneliness on in-store product interaction was marginally significant ( $\beta = -.18$ ,  $t(197) = -1.76$ ,  $p = .08$ ) whereas the direct effect was not ( $\beta = -.09$ ,  $t(197) = -.76$ ,  $p = .45$ ). These results (Figure 3) are not consistent with our expectation that chronic loneliness will negatively impact preference for interpersonal haptic-related experiences only and called for further exploration of the unexpected result.

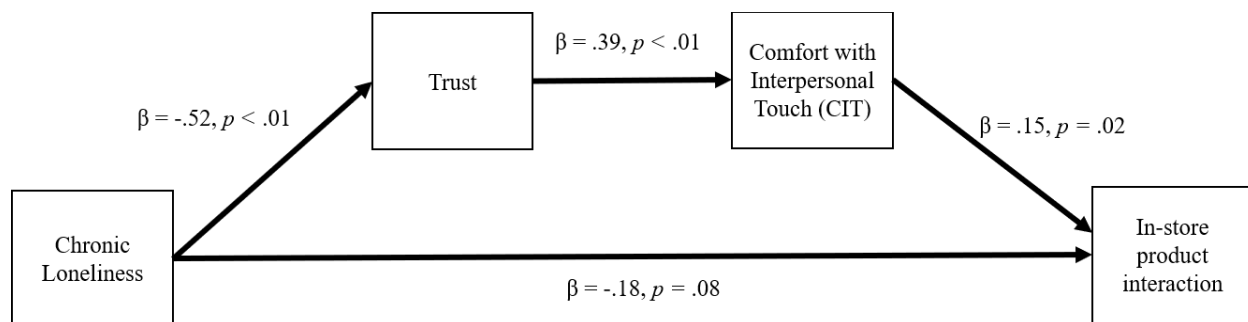


Figure 3-3. Serial mediation model of chronic loneliness on in-store product interaction, PROCESS Model 6.

Additional analyses revealed that participants' need for product touch positively correlated with their comfort with interpersonal touch ( $r(197) = .26$ ,  $p < .001$ ). Therefore, we ran

the two mediation models again adding need for touch as covariate and we indeed found that the indirect effect of chronic loneliness through interpersonal trust and comfort with interpersonal touch was significant only when in-store people interaction was the criterion variable ( $\beta = -.05$ ,  $SE = .03$ , 95% CI  $[-.12 \text{ } -.02]$ , based on 5,000 bootstrap samples) but not when in-store product interaction was the criterion variable ( $\beta = -.01$ ,  $SE = .01$ , 95% CI  $[-.03 \text{ } .01]$ , based on 5,000 bootstrap samples). These results are consistent with our expectations and provide initial support for H1 and H3. However, further evidence is needed to rule out the alternative explanation that chronically lonely individuals eschew all typologies of haptic-related consumption experiences including product-related ones.

*Ancillary Measures.* After running correlational analyses between chronic loneliness and the ancillary measures, we found no correlational support for the alternative anxiety-related feelings. We found no significant correlation between chronic loneliness and measures of contamination cognitions and of social risk-taking (all  $p_s > .11$ ).

Taken together, the results of Study 1 provide initial correlational evidence for our hypothesized serial mediation model. Additionally, we found that contamination cognitions and social risk-taking are not correlated with chronic loneliness and thus not compete with interpersonal trust in explaining how anxiety-related thoughts typical of the chronically lonely individual will prevent reconnection efforts. However, we found some unexpected results when trying to rule out the relation between chronic loneliness and product haptic interactions. In Study 2, we will further examine this alternative to try and definitely rule it out.

## **STUDY 2: CHRONIC VS STATE LONELINESS**

In Study 1 we found correlational evidence for the hypothesized process underlying the counterintuitive effect of chronic loneliness on reduced preference for in-store features that are

conducive of haptic interactions. We designed Study 2 to explore our hypothesized difference in preference for social reconnection options between participants who are chronically lonely and participants whose loneliness is situationally induced. We predict that chronically lonely individuals will eschew social reconnection options, whereas situationally lonely individuals will actively seek haptic social reconnection options (H2).

Again, as haptic social reconnection options, we measured preference for in-store features that are conducive of both interpersonal and product haptic interactions as we did in Study 1. We aim to find additional support to rule out the alternative that chronically lonely individuals will eschew all touch-related interactions including product-related haptic consumption experiences that, unlikely interpersonal-related one, do not provide social reconnection opportunities. To do so, we added new items to the scale used in the previous study in an attempt to measure interpersonal and touch interactions more reliably and effectively.

Moreover, we measured preference for online versus offline shopping, and preference for a haptic-related product name to examine whether our hypothesized relation applied to other haptic versus non-haptic consumption options. If that were the case, we would expect chronic lonely individuals to prefer online shopping more than offline shopping whereas situationally lonely individuals to prefer offline shopping more than online shopping. Also, we would expect situationally lonely individuals to prefer the haptic-related product name more and chronically lonely individuals to prefer it less.

Finally, for exploratory purposes, in this study we measured an alternative social reconnection option to determine if the effect is specific to haptic reconnection options or if it extends to other options that have been previously tested in the literature, such as preference for anthropomorphic products (Chen et al. 2017; Mourey et al. 2017).

## Method

*Participants and procedure.* Two hundred and one participants (57% men;  $M_{\text{age}} = 30.40$  yrs.,  $SD = 7.38$ ) were recruited from the United Kingdom through Prolific Academic in exchange for a small monetary compensation. They were randomly assigned to a one-factor (state loneliness: control, high) between-subjects design. Participants first completed a recall task designed to manipulate their state feelings of loneliness. Participants were then given instructions for an ostensibly unrelated study about consumers' personal experiences and emotions in various contexts. After completing the recall task, participants were asked to complete a study on their current feelings to indicate how they felt at the very moment. After completing the study on current feelings, participants completed three consumer preference studies in a counterbalanced order, namely a "shopping experience study," "online/offline shopping preferences study," and "chocolate company pilot study." The first consumer study measured participants' attitudes regarding several aspects of their shopping experiences in-store. The second consumer study measured participants' preference for online/offline shopping experiences. Finally, the third consumer study asked participants to help a chocolate company choose 1) which of two prototypes to launch in the market, and 2) which name to give to a new chocolate praline. After completing the three consumer preferences studies, as part of a "consumer personality study," all participants completed scales related to interpersonal and product touch, and interpersonal trust. Participants also completed a measure of chronic loneliness as part of a "scale development study." Finally, they were asked to provide basic demographic information, debriefed, and thanked for their collaboration.

*Loneliness manipulation.* Participants assigned to the loneliness condition received the following instructions:

*For this task, we are interested in how people describe the experience of feeling lonely. Think of a time when you felt lonely and spend a few minutes writing about the experience. Don't worry about spelling or grammar; just write down as much detail about the experience as possible.*

Participants in the control condition, in contrast, were given the following instructions:

*For this task, we are interested in how you would describe walking around the grocery store. That is, think of what it is like to walk around the grocery store and spend a few minutes writing about the experience. Don't worry about spelling or grammar; just write down as much detail about the experience as possible.*

After receiving the instructions, they were asked to write about the randomly assigned experience for two minutes. Manipulation details can be found in Appendix C.

*Manipulation check.* As part of a study on their current feelings, participants responded to five items measuring their feelings of being tired, powerful, lonely, angry, and happy at that very moment (1 = not at all; 7 = very much). The target manipulation check item was “At this moment, I feel lonely.”

*In-store haptic interaction.* Similar to the previous study, to measure attitudes towards in-store features fostering haptic interaction, participants were asked to rate the extent of their agreement with 10 statements including the four items from the previous study. Items included “I like to browse touch screen devices to obtain additional product information” and “I like to chat with sales personnel to obtain additional product information” For a full list of statements, please refer to Appendix A.



*Preference for online vs. offline shopping.* In this study, we aimed at exploring whether chronic or state loneliness had an impact on the preference for technology-mediated haptic-less shopping experiences online. In particular, we asked participants to indicate, all other things being equal (price, assortment, availability...), their preference when they have to purchase something for online/offline shopping on two semantic differential scales anchored at 1 = browse a website; buy online, and 9 = go to a store; buy offline. In addition, they indicated their preference for online versus offline shopping on a list of attributes (see Appendix A).

*Preference for haptic-related product name.* As part of a consumer product preference study, participants were told that a chocolate brand needed to decide a new name for a praline described as “A chewy-soft center of premium caramel enrobed in milk chocolate.” Participants were asked to choose between a haptic-related name “Milk Caramel Embrace” or a non-haptic-related one “Milk Caramel Vortex.”

*Preference for anthropomorphic product.* As part of a consumer product preference study, participants were told that a chocolate brand wanted to launch a high-end chocolate sculpture product selection for its customers. Participants were shown two prototypes the maître chocolatiers developed. One prototype is a human-like sculpture (i.e., anthropomorphic product) and the other prototype is an abstract sculpture (i.e., non-anthropomorphic product). Participants were asked to express their preferences for the prototypes on four items (choice, appeal, willingness to pay, attractiveness) on a 9-point scale anchored at “1 definitely prototype A” and “9 definitely prototype B.” The order of the two prototypes was counterbalanced between-subject. The stimuli used can be found in Appendix B.

*Trait measures.* As in the previous study, participants completed the UCLA chronic loneliness scale (Russell 1996), the need for touch scale (NFT; Peck and Childers 2003), the

comfort with interpersonal touch scale (CIT; Webb and Peck 2015), and the generalized trust scale (Yamagishi and Yamagishi 1994).

## **Results and discussion**

*Data exclusion.* The open-ended responses to the loneliness manipulation were content-analyzed to assess whether participants followed instructions in recalling a neutral experience or an experience of loneliness. Two independent judges blind to the research hypotheses analyzed the text and decided whether it narrated about a loneliness experience or not. Based on the joint judges' decision, twenty-nine participants (14%) failed to follow instructions and were removed from the sample, leaving 172 respondents for the analyses (56% men;  $M_{\text{age}} = 30.21$  yrs.,  $SD = 7.43$ ).

*Manipulation check.* The one-way ANOVA on the participants' feelings of loneliness showed that the manipulation did not have a significant effect ( $F(1, 170) = 2.72, p = .10$ ). Compared to participants in the control condition ( $M = 2.78, SD = 1.64$ ), participants in the loneliness condition ( $M = 3.20, SD = 1.67$ ) did not feel lonelier. These results suggest that the manipulation of loneliness was unsuccessful.

Although the failed manipulation of loneliness potentially contaminates the data, we nevertheless tested our correlational hypotheses by ignoring the loneliness manipulation. We did this merely for exploratory purposes to determine if our correlational hypotheses, tested in Study 1, would replicate.

*In-store haptic interaction.* Before we created the two composite measures for in-store interpersonal and in-store product haptic experiences, we conducted a factor analysis to verify the bi-dimensionality of our criterion variable. A factor analysis of the current results was performed using the Principal Components method of extraction. Bartlett's test of sphericity,

which tests the overall significance of all the correlations within the correlation matrix, was significant ( $\chi^2(45) = 836.63, p < .01$ ), indicating that it was appropriate to use the factor analytic model on this set of data. The Kaiser-Meyer-Olkin measure of sampling adequacy indicated that the strength of the relationships among variables was optimal to proceed with the analysis. (KMO = .84). The analysis yielded the extraction of two factors with eigenvalues greater than one and explaining 59% of the total variance.

A Varimax rotation was performed and the obtained pattern matrix is displayed in Table 2. Items with communalities below .50 were eliminated (Kline 2005). Two items loaded poorly on the two extracted components and were culled from the overall composite measures. The pattern matrix in Table 2 revealed factor one to consist of five items. This factor was labeled “In-store people interaction” and demonstrated a high internal consistency ( $\alpha = .92$ ). The second factor consisted of three items and it was identified as “In-store product interaction” and demonstrated a high internal consistency also ( $\alpha = .69$ ).

Rotated Component Matrix <sup>a</sup>		
	Component	
	1	2
I enjoy interacting with salespeople.	<b>.876</b>	.202
I like to chat with sales personnel to obtain additional product information.	<b>.870</b>	.242
I actively seek advice from salespeople.	<b>.844</b>	.232
I like when a store is designed to encourage sales personnel to approach customers.	<b>.814</b>	.153
I like when a store is designed to encourage customers to interact with each other.	<b>.780</b>	.171
I dislike being in a crowded area. (R)	-.469	.215
I like when a store is designed to neatly display products in glass cases. (R)	.226	.162
I like when a store is designed to encourage customers to touch products.	.096	<b>.875</b>
I like when a store is designed to encourage customers to try products.	.188	<b>.731</b>
I like to browse touch screen devices to obtain additional product information.	.101	<b>.698</b>

Note. Factor loadings > .50 are in boldface.

Extraction Method: Principal Component Analysis.

a. Rotation converged in 3 iterations.

Table 3-3. Factor Analysis In-store Haptic Features Items, study 2.

*Hypothesis Testing.* To test our hypothesis that chronic loneliness would negatively correlate with in-store haptic interactions (H1) and that it would also negatively correlate with interpersonal trust and comfort with interpersonal touch (H3), we again first created all composite measures of our variables of interest. Notably, correlational results from this study replicate those we found in Study 1 (Table 4).

To test whether our serial mediation hypothesis results also replicated, we again tested for serial mediation using PROCESS Model 6 (Hayes 2013), with the expectation that chronic loneliness affects interpersonal trust, which in turn affects comfort with interpersonal touch, which in turn affects our other dependent variables.

When we tested the model with in-store people interaction as criterion variable, as expected, the indirect effect of chronic loneliness on in-store haptic interactions through interpersonal trust and comfort with interpersonal touch (serially, in that order) was significant ( $\beta = -.05$ ,  $SE = .03$ , 95% CI  $[-.11 \text{ } -.02]$ , based on 5,000 bootstrap samples). Moreover, the total effect of chronic loneliness on in-store people interaction was significant ( $\beta = -.40$ ,  $t(170) = -2.61$ ,  $p = .01$ ) whereas the direct effect was not ( $\beta = -.13$ ,  $t(170) = -.88$ ,  $p = .38$ ). These results were consistent with our expectation that interpersonal trust and comfort with interpersonal touch serially mediate the effect of chronic loneliness on in-store people interaction (Figure 4).

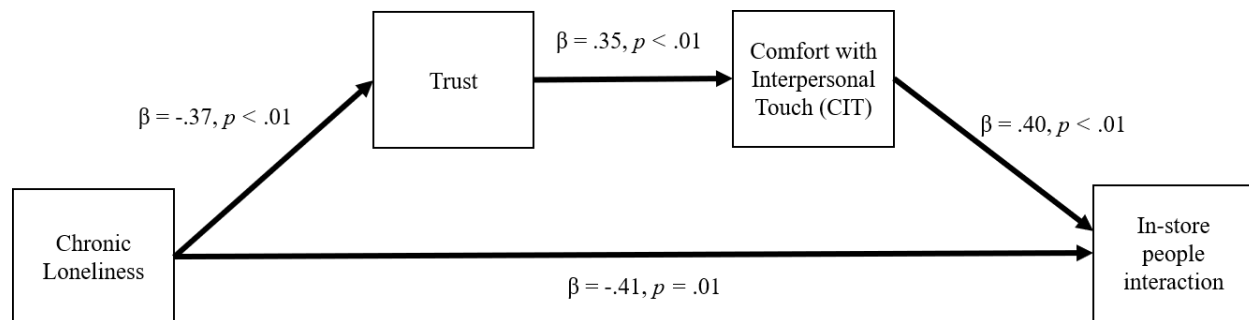


Figure 3-4. Serial mediation model of chronic loneliness on in-store people interaction, PROCESS Model 6.

Measure	Correlations												
	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Chronic loneliness	-												
2. Comfort with Interpersonal Touch (CIT)	-.298**	-											
3. CIT initiating	-.311**	.820**	-										
4. CIT receiving	-.207**	.880**	.450**	-									
5. Need for Touch (NFT)	-.088	.254**	.316**	.134°	-								
6. NFT Instrumental	-.087	.226**	.282**	.119	.931**	-							
7. NFT autotelic	-.079	.249**	.309**	.133°	.946**	.761**	-						
8. Interpersonal trust	-.247**	.325**	.294**	.263**	.156*	.130°	.161*	-					
9. In-store product interaction	-.130°	.178*	.240**	.077	.622**	.515**	.644**	.149°	-				
10. In-store people interaction	-.196*	.420**	.438**	.293**	.379**	.362**	.350**	.216**	.359**	-			
11. Preference for online shopping	.115	-.176*	-.169*	-.135°	-.268**	-.299**	-.209**	-.012	-.137°	-.299**	-		
12. Preference for haptic-related product name <sup>a</sup>	-.027	-.025	.043	-.075	.053	.025	.072	-.114	.007	-.076	-.065	-	
13. Preference for anthropomorphic product	.077	.073	.063	.061	.036	.050	.019	.045	-.009	.063	-.117	.054	-
M	2.82	3.42	2.82	4.02	4.23	4.17	4.30	4.42	4.93	2.87	5.76	.69	2.22
SD	.70	1.38	1.47	1.77	1.39	1.40	1.57	1.06	1.21	1.46	1.28	.46	1.72
$\alpha$	.92	.88	.85	.97	.95	.91	.95	.88	.69	.92	.76		.94

<sup>a</sup>Preference for haptic-related product name: 0 = non-haptic related, 1 = haptic-related.

°p < .10 \*\*p < .05 \*\*\*p < .01

Table 3-4. Measured Variables: Correlations and Descriptive Statistics (N =172).

However, when we tested the model with in-store product interaction as criterion variable, we did not replicate the serial mediation we obtained in Study 1. Even though we found that the total effect was again marginally significant ( $\beta = -.22$ ,  $t(170) = -1.71$ ,  $p = .09$ ), the indirect effect through trust and comfort with interpersonal touch was not ( $\beta = -.01$ ,  $SE = .01$ , 95% CI  $[-.04 .01]$ , based on 5,000 bootstrap samples). In particular, we found that the path between comfort with interpersonal touch and in-store product interaction was not significant (Figure 5). These results provide additional support to help us ruling out the alternative explanation that chronically lonely individuals might eschew all touch-related consumption interactions instead of interpersonal ones only.

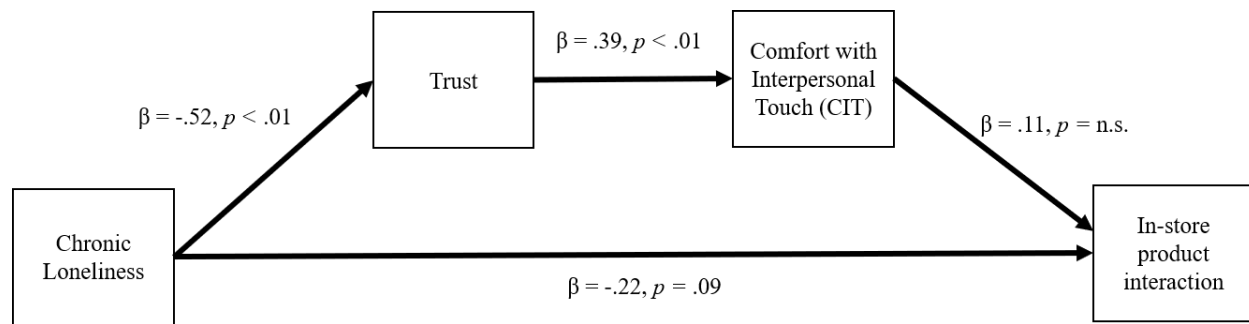


Figure 3-5. Serial mediation model of chronic loneliness on in-store product interaction, PROCESS Model 6.

*Other haptic-related options.* Results of the Pearson correlation indicated that there no significant correlation between chronic loneliness and preference for online shopping nor with preference for a haptic-related product name (all  $p_s > .13$ ).

*Preference for anthropomorphic product.* We collapsed the four items expressing preference (choice, appeal, willingness to pay, attractiveness) for the anthropomorphic chocolate statue versus the abstract non-anthropomorphic one ( $\alpha = .94$ ). Results of the Pearson correlation indicated that there no significant correlation between chronic loneliness and preference for the anthropomorphic chocolate statue ( $p = .31$ ). This result seems to suggest that our propositions

might hold only for haptic-related consumption activities and unlikely extend to indirect substitutes of direct social reconnection.

Taken together, the results of Study 2 replicate the results of Study 1 in supporting our hypothesized negative relation between chronic loneliness and in-store haptic interactions (H1) as well as our hypothesized serial mediation model (H3). Also, the results helped clarify that lonely consumers eschew haptic-related consumption experiences that are interpersonal in nature because of their lack of interpersonal trust which makes them less trustful of individuals, which in turn affects their comfort with interpersonal touch rather than with product touch.

Unfortunately, given the unsuccessful loneliness manipulation, we were unable to find support for our hypothesized difference in reconnection tendencies between chronically lonely and situationally lonely individuals (H2). Following the unsuccessful loneliness manipulation in Study 2, we ran another study to try and manipulate loneliness. In particular, we tried using a different manipulation (i.e., bogus feedback on a loneliness evaluation; Wildschut et al. 2006) and a different sample (i.e., students in a US university lab), but we were again unsuccessful.

### **STUDY 3: TRUST BOOST MODERATION-OF-PROCESS**

In Study 3, we manipulated interpersonal trust and we measured attitudes towards different typologies of haptic in-store interaction. This study has two primary objectives. First, by manipulating trust, we provide additional evidence for the process underlying the effect of chronic loneliness on comfort with interpersonal touch and attitudes towards haptic-related consumption experiences. In fact, it could be argued that because interpersonal trust is a trait variable, it could causally precede chronic loneliness. However, if the directionality we hypothesize is correct, a moderation-of-process design will rule out such an alternative explanation. Specifically, if interpersonal trust is indeed the first mediator of the serial mediation

model we tested in the previous studies, then increasing it should eliminate the effect of loneliness on comfort with interpersonal touch and attitudes towards haptic-related consumption experiences.

Second, by examining different typologies of haptic interpersonal interaction that could happen in-store, we explore whether there is a difference in willingness to socially reconnect based on the type of interpersonal touch received or initiated. Schroeder and colleagues (2017) proposed that there is a difference between romantic, functional, and imposed intimacy. Therefore, another person's touch can pertain to each of those three categories. For example, a romantic touch can be that of partners holding hands, a functional touch can be that of airport security official screening people needing to catch a flight, and an imposed touch can be that of people being inadvertently touched on public transportation. Accordingly, we created a measure of in-store haptic interactions that reflected the distinction between functional (e.g., salesperson taking your measurement) and imposed (e.g., salesperson bumping into you) touch that customer might receive or initiate while shopping in a store<sup>17</sup>.

Before conducting this study, we conducted a pretest to confirm that our trust boost manipulation was effective and to make sure that the in-store haptic interactions scenarios were interpreted as intended in terms of receiving or initiating touch, and in terms of the touch interaction being functional or imposed. See Appendixes D and E for details of pretests and manipulation checks.

## **Method**

*Participants and procedure.* Two hundred and three participants (21% men;  $M_{\text{age}} = 35.66$

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<sup>17</sup> We did not use romantic touch in this study because this typology of touch does not fit the examined consumption setting of in-store haptic interaction between a customer and a salesperson. However, when pretesting our measure, we made sure that the distinction between the three typologies was clearly understood and discriminated by to avoid confounds in the main study.



yrs.,  $SD = 11.27$ ) were recruited from the United Kingdom through Prolific Academic in exchange for a small monetary compensation. They were randomly assigned to a one-factor 2-level (trust boost: absent vs. present) between-subjects design.

First, in a procedure that represented the trust manipulation, participants completed a verbal aptitude task in which they were asked to read a randomly selected newspaper article and write a few supporting arguments about its main claim. After they completed the task, participants were asked to complete a study on general attitudes in which they were asked to express their opinion on a wide range of topics. After expressing their opinion, participants completed a shopping experience study in which they were asked to read 16 short scenarios depicting various aspects of in-store shopping and to indicate how they would feel in each situation. Subsequently, as part of a consumer personality study, all participants completed the scales related to interpersonal touch and trust. Finally, participants completed a measure of chronic loneliness as part of a scale development study, provided basic demographic information, and were thanked for their collaboration.

*Trust boost manipulation.* Participants first completed a verbal aptitude task that manipulated participants' levels of interpersonal trust. Participants assigned to the trust boost present condition read a newspaper article titled "People Are More Trustworthy Than We Think" (see Appendix D) and were asked to write in support of the article's main argument explaining its merits and to provide an example of a time in which they trusted another person and they benefited from it. In contrast, participants assigned to the trust boost absent condition read a newspaper article titled "Shelf Effacement: How Not to Organize Your Bookshelves" and were also asked to write in support of the authors' main argument and to provide an example related to content of the text.

*Manipulation check.* As part of a study on general attitudes, participants were shown four generic statements and asked to express how they felt about them at that moment (1 = strongly disagree; 7 = strongly agree). The three filler items were: “TV is my main form of entertainment,” “I like to try new things,” and “Overall, I’d say I am pretty happy.” Our target manipulation check item was “In general, I think people are trustworthy.”

*Comfort with in-store haptic interaction.* To measure attitudes towards in-store possible haptic interactions, participants read nine touch-related scenarios and seven filler ones (see Appendix A), and they were asked to express how they would act and feel in such situations. For the scenarios depicting instances of functional or imposed in-store touch interactions between customers and salespersons, participants were asked to rate the likelihood of them initiating and of them being bothered when receiving such interpersonal touch (1 = not at all likely, 7 = very much likely). For filler scenarios, participants were asked to rate their likelihood of acting or feeling a certain way about a variety of non-touch situations that might be encountered while shopping in a store. Participants were shown target and filler scenarios in a randomized order to disguise the experimental purpose.

*Trait measures.* Similar to the previous studies, participants completed the UCLA chronic loneliness scale (Russell 1996), the comfort with interpersonal touch scale (Webb and Peck 2015), and the generalized trust scale (Yamagishi and Yamagishi 1994).

## **Results and Discussion**

*Manipulation check.* A one-way ANOVA on the manipulation check item showed that the manipulation was effective ( $F(1, 201) = 7.23, p < .01$ ). Compared to participants in the trust boost absent condition ( $M = 4.28, SD = 1.30$ ), participants in the trust boost present condition exhibited higher agreement with the item stating that other people are trustworthy ( $M = 4.78, SD$

= 1.33).

*Hypothesis Testing.* We expected that participants' chronic loneliness would affect their comfort with interpersonal touch, which in turn would affect their comfort with in-store haptic interactions. However, we expected that such mediation effect would be eliminated under the trust boost present condition, but not under the trust boost absent condition.

First, we recoded participants responses to the in-store haptic interactions scenarios such that higher scores corresponded to higher propensity to touch salespersons and to lowest anticipated discomfort when being touched by salespersons. Second, we computed an overall score for comfort with in-store haptic interaction ( $\alpha = .73$ ) and we used it as a dependent variable in testing for moderated mediation using PROCESS Model 8 (Hayes 2013).

Based on a 5,000-iteration bootstrap, we found that trust boost moderates the effect of chronic loneliness on comfort with interpersonal touch at a 95% confidence level ( $B = .87$ ,  $SE = .28$ , 95% CI = [.36, 1.42]) and it moderates the effect on chronic loneliness on comfort with in-store haptic interactions at a 95% confidence level ( $B = .37$ ,  $SE = .18$ , 95% CI = [.01, 0.72]). As hypothesized, we find that chronic loneliness has an effect on comfort with in-store haptic interactions only when the trust boost is absent (see Figure 6). Moreover, we found that the index of moderated mediation was significant at the 95% confidence level ( $Index = .39$ ,  $SE = .14$ ,  $CI = [.11, .65]$ ) and that the effect of chronic loneliness on comfort with in-store haptic interactions through comfort with interpersonal touch was significant only when the trust boost was absent ( $CI_{\text{trust boost present}} = [-.15, .24]$ ,  $CI_{\text{trust boost absent}} = [-.52, -.14]$ ). These results indicate that when participants' interpersonal trust was boosted, the effect of chronic loneliness on comfort with in-store haptic interactions was eliminated. These findings suggest that interpersonal trust is truly the underlying mechanism explaining why chronically lonely

individuals see touch as aversive rather than as an opportunity for social reconnection.

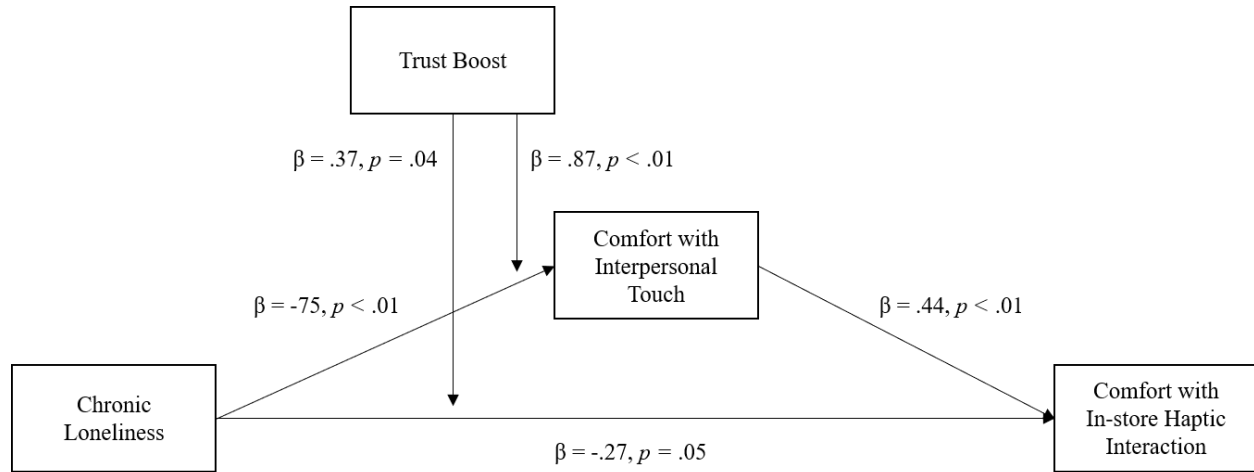


Figure 3-6. Moderated mediation model of chronic loneliness on comfort with in-store haptic interaction, PROCESS Model 8.

*Typologies of in-store haptic interaction.* In creating our measure of comfort with in-store haptic interaction, we included scenarios depicting both functional (e.g., “Imagine that a salesperson helps you take your size measurements.”) and imposed (e.g., “Imagine that a salesperson accidentally bumps into you while you are shopping.”) interpersonal touch. In doing so, we aimed at observing whether different types of interpersonal touch would elicit different responses. First, we computed two subscales comprising items measuring comfort with functional interpersonal touch ( $\alpha = .61$ ) and items measuring comfort with imposed interpersonal touch ( $\alpha = .62$ ). Second, we again tested for moderated mediation using PROCESS Model 8 (Hayes 2013), with the expectation that chronic loneliness affects comfort with interpersonal touch, which in turn affects comfort with in-store haptic interactions (functional and imposed), but only in the trust boost absent condition.

When using comfort with functional interpersonal touch as criterion variable, we found that the index of moderated mediation was significant at the 95% confidence level ( $Index = .39$ ,  $SE = .14$ ,  $CI = [.11, .65]$ ) and that the effect of chronic loneliness on comfort with in-store haptic interactions through comfort with interpersonal touch was significant only when the trust boost

was absent ( $CI_{\text{trust boost present}} = [-.16, .24]$ ,  $CI_{\text{trust boost absent}} = [-.51, -.15]$ ).

When using comfort with imposed interpersonal touch as criterion variable, we found that the index of moderated mediation was significant at the 95% confidence level ( $Index = .38$ ,  $SE = .15$ ,  $CI = [.10, .68]$ ) and that the effect of chronic loneliness on comfort with in-store haptic interactions through comfort with interpersonal touch was significant only when the trust boost was absent ( $CI_{\text{trust boost present}} = [-.16, .24]$ ,  $CI_{\text{trust boost absent}} = [-.55, -.14]$ ). Based on these findings, it seems that our hypothesized serial mediation (H3) holds for different typologies of interpersonal in-store haptic interactions regardless of their specific function.

Taken together, the results of Study 3 provide additional support for our hypothesis that chronically lonely consumers will be less comfortable with in-store haptic interactions regardless of whether they are functional or imposed (H1). Moreover, by manipulating participants' interpersonal trust we were able to more stringently test our hypothesis that chronically lonely consumers will eschew in-store haptic interaction because of their lack of interpersonal trust, which negatively affects their comfort with interpersonal touch (H3). Specifically, moderated mediation analyses showed that when participants' interpersonal trust is boosted experimentally, the negative effect of chronic loneliness on in-store haptic interactions is eliminated.

## GENERAL DISCUSSION

We find that chronically lonely consumers eschew haptic-related consumer experiences, and that they do so because they lack interpersonal trust, which lowers their comfort with interpersonal touch more generally. Throughout three studies, we found support for two of our three hypotheses, and we could consistently replicate our findings using different measures of haptic in-store experiences. Unfortunately, we were unable to provide support for our hypothesized difference between chronically and situationally lonely consumers. We posited that

the negative effect of loneliness on attitudes towards haptic-related consumer experiences would only hold for chronically lonely individuals because of their hypervigilance tendencies towards social reconnection opportunities making them less trustful of others. However, in Study 2 our loneliness manipulation failed to significantly manipulate participants' state feelings of loneliness and second hypothesis could not be tested.

In addition to testing our main hypotheses, our studies: 1) explored some alternatives that could compete with our theorizing (i.e., contamination cognitions and social risk taking); 2) examined whether our effect was specific to haptic consumption experiences or extended to other social reconnection options that consumption activities might offer (i.e., anthropomorphic products); and 3) investigated whether the effect was specific to a certain typology of haptic interpersonal interaction (i.e., functional and imposed touch). Overall, we found that the negative effect of chronic loneliness on attitudes towards haptic-related consumer experiences is explained by interpersonal trust and comfort with interpersonal touch, and it is unlikely to be explained by other anxiety-related thoughts that might typical of the chronically lonely individual such as heightened contamination cognitions and lowered social risk taking. Moreover, we found that our effect does not extend to other consumption options that might act as indirect substitutes of direct social reconnection such as anthropomorphic products. Previous research has shown that lonely individuals do prefer anthropomorphic products and brands (Chen et al. 2017; Mourey et al. 2017), but those results were based on experimental procedures that manipulated state loneliness rather than measuring chronic loneliness (e.g., Cyberball, written recall of social exclusion). The results of these previous studies lend additional credence to our currently untested hypothesis two (H2) as it seems that situationally chronically individuals will indeed seek consumption options that offer reconnection opportunities (indirectly or directly).

Table 6 provides a summary of the main findings.

### **Theoretical implications**

Our findings add to literature on loneliness by introducing a new theoretical proposition to try and solve the social reconnection hypothesis conundrum. We posit that chronically lonely and situationally lonely individuals will differ in their likelihood to seek social reconnection. Specifically, situationally lonely individuals will seek interpersonal reconnection whereas chronically lonely individuals, who are trapped in their hypersensitivity to negative social cues, will not. So far, we could only provide evidence that chronically lonely individuals eschew haptic-related chances for reconnection in consumption settings. Therefore, we add to the stream of literature that explores boundary conditions for the reconnection hypothesis and that argues that not all instances of social pain motivate individuals to attempt to restore feelings of social connectedness.

Furthermore, we add to the literature on consumer haptics by identifying important antecedents of comfort with interpersonal touch. Our findings suggest that comfort with interpersonal touch is influenced by chronic feelings of loneliness. The negative self-reinforcing loop that characterizes chronic lonely individuals deeply shapes their perception that other individuals are threatening when it comes to socially interact with them, and we find that these negative cognitions affect interpersonal trust levels which in turn affect levels of comfort with receiving and initiating interpersonal touch. Our findings indicate that comfort with interpersonal trust is unlikely to be an innate personal trait, but rather it is likely shaped by previous interpersonal interactions.

Experiment	Study Design	Main Dependent Variable(s)	Other Measures	Key Results
STUDY 1: CHRONIC LONELINESS, TRUST AND TOUCH	Correlational	In-store haptic interaction (enabling store features)	Interpersonal trust, comfort with interpersonal touch, need for touch, chronic loneliness (UCLA scale)  Contamination cognitions and social risk taking	<ul style="list-style-type: none"> <li>• Chronically lonely participants dislike store features that are conducive of haptic interactions more than non-lonely participants (H1);</li> <li>• The effect is mediated by participants' level of interpersonal trust and comfort with interpersonal touch (serially, in that order; H3);</li> <li>• Chronic loneliness does not correlate with contamination cognitions nor with social risk taking.</li> </ul>
STUDY 2: CHRONIC VS STATE LONELINESS	2 (state loneliness: control, high) between-subjects design	In-store haptic interaction (enabling store features)  Preference for online/offline shopping  Preference for haptic-related product name	Interpersonal trust, comfort with interpersonal touch, need for touch, chronic loneliness (UCLA scale)  Preference for anthropomorphic product	<ul style="list-style-type: none"> <li>• Loneliness manipulation failed to reach significance;</li> <li>• Chronically lonely participants dislike store features that are conducive of haptic interactions more than non-lonely participants (H1);</li> <li>• The effect is mediated by participants' level of interpersonal trust and comfort with interpersonal touch (serially, in that order; H3);</li> <li>• Chronic loneliness does not correlate with preference for online/offline shopping nor with preference for haptic-related product name);</li> <li>• Chronic loneliness does not correlate with preference for anthropomorphic product.</li> </ul>
STUDY 3: TRUST BOOST MODERATION-OF-PROCESS	2 (trust boost: absent vs. present) between-subjects design	In-store haptic interaction (comfort with in-store functional and imposed touch)	Interpersonal trust, comfort with interpersonal touch, chronic loneliness (UCLA scale)	<ul style="list-style-type: none"> <li>• Chronically lonely participants display lower comfort with in-store touch than non-lonely participants (H1);</li> <li>• The effect holds for both functional and imposed in-store touch;</li> <li>• When participants' level of trust is boosted, the mediation effect through comfort with interpersonal touch is eliminated (moderation-of-process, H3).</li> </ul>

Table 3-5. Summary of Main Findings



## **Managerial implications**

Research is advancing on how to incorporate haptic sensations in computer mediated communications (Haans and IJsselsteijn 2006) and it is not hard to envision marketers trying to add haptic sensations to online shopping platforms (e.g., enabling customers to feel the softness of a clothing item) or to add hapticons (i.e., haptic emoticons) to mediated communication services such as messaging platforms and dating apps (e.g., enabling customers to send hugs over WhatsApp).

We find that chronically lonely consumers eschew rather than seek haptic-related consumption experiences. One suggestion for marketers seeking to invest in the field of haptics would be to carefully consider whether their consumers will find haptic engagement to be aversive. Recent studies have shown that loneliness is widespread among millennials and, if most shoppers are characterized by chronic loneliness, marketers' investments in the field of haptics might be unwarranted. However, we also found that external reminders that boost consumers' trust in others can eliminate the effect. Therefore, one solution would be for marketers to include those reminders in promotional messages that advertise haptic-related consumption experiences.

## **Limitations and further research**

The main limitation of the present research is the lack of an effective loneliness manipulation that prevented us from testing our proposition that momentarily lonely individuals, as opposed to chronically lonely ones, seek rather than eschew haptic-related consumer experiences (H2). We are currently working on the next studies to advance the research presented in this essay, and the main objective is now to find an effective loneliness manipulation.

Also, based on our research, one could argue that given haptic consumption experiences are aversive for chronic lonely individuals, they should be avoided because they might spill over in negative evaluation of the consumption experience itself. In the present research, we did not yet test this spillover effect from reduced willingness to engage in haptic-related consumption experiences to reduced liking of the consumption experience itself. However, if we were to test this proposition, we would counterintuitively hypothesize that this will not be the case. In fact, research has shown that even if interpersonal touch is aversive only for individuals high in social anxiety as compared to those low in social anxiety, the positive physiological responses to touch do not differ between individuals with high and low social anxiety (Wilhelm et al. 2001). The finding that interpersonal touch is aversive only for people high in social anxiety is consistent with our finding that chronically lonely consumers eschew interpersonal touch and haptic-related consumer experiences. Nevertheless, it also seems to suggest that if interpersonal touch cannot be avoided and it is indeed experienced, it might benefit chronic lonely individuals as it does for everyone else more generally (e.g., increased oxytocin, reduced stress). Further research is needed to determine whether the aversion towards interpersonal touch spills over into negative evaluation of haptic-related consumption and to determine whether it perpetrates the self-reinforcing loneliness loop. A possibility exists that imposed touch therapies and haptic consumption experiences can help fight the crystallization of loneliness into chronic loneliness.

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## **APPENDIX**

### **Appendix A. Main Measures Used Study 1 to 3**

#### **UCLA Loneliness Scale (Russell 1996)**

The following statements describe how people sometimes feel. For each statement, please indicate how often you feel the way described.

1. I feel in tune with the people around me
2. I lack companionship
3. There is no one I can turn to
4. I do not feel alone
5. I feel part of a group of friends
6. I have a lot in common with the people around me
7. I am no longer close to anyone
8. My interests and ideas are not shared by those around me
9. I am an outgoing person
10. There are people I feel close to
11. I feel left out
12. My social relationships are superficial
13. No one really knows me well
14. I feel isolated from others
15. I can find companionship when I want it
16. There are people who really understand me
17. I am unhappy being so withdrawn
18. People are around me but not with me

19. There are people I can talk to

20. There are people I can turn to

1 = never, 2 = rarely, 3 = sometimes, 4 = often

Items 1, 5, 6, 9, 10, 15, 16, 19, 20 are all reverse scored.

**Need for touch scale (Peck and Childers 2003)**

1. When walking through stores, I can't help touching all kinds of products.
2. Touching products can be fun.
3. I place more trust in products that can be touched before purchase.
4. I feel more comfortable purchasing a product after physically examining it.
5. When browsing in stores, it is important for me to handle all kinds of products.
6. If I can't touch a product in the store, I am reluctant to purchase the product.
7. I like to touch products even if I have no intentions of buying them.
8. I feel more confident making a purchase after touching a product.
9. When browsing in stores, I like to touch lots of products.
10. The only way to make sure a product is worth buying is to actually touch it.
11. There are many products that I would only buy if I could handle them before purchase.
12. I find myself touching all kinds of products in stores.

1 = strongly disagree, 7 = strongly agree

Items 1, 2, 5, 7, 9, 12 measure autotelic need for touch

Items 3, 4, 6, 8, 10, 11 measure instrumental need for touch

**Comfort with interpersonal touch scale (Webb and Peck 2015)**

1. I consider myself to be a more 'touchy' person than most of my friends.
2. I feel more comfortable initiating touch than most people.

3. When talking to people, I often touch them on the arm.
4. I don't mind if someone touches my arm.
5. During conversation, I don't mind if people touch me.
6. I typically don't mind receiving touch from another person.

1 = strongly disagree, 7 = strongly agree

Items 1 to 3 measure comfort with initiating touch whereas items 4 to 6 measure comfort with receiving touch.

#### **Generalized trust scale (Yamagishi and Yamagishi 1994)**

1. Most people are basically honest.
2. Most people are trustworthy.
3. Most people are basically good and kind.
4. Most people are trustful of others.
5. I am trustful.
6. Most people will respond in kind when they are trusted by others.

1 = strongly disagree, 7 = strongly agree

#### **In-store haptic interaction, Study 1**

##### **SHOPPING EXPERIENCE STUDY**

In this next study, we are interested in understanding consumers preferences regarding several aspects of their shopping experiences in store. There are no right or wrong answers, simply answer as honestly as you can.

When I shop in a store...

1. I like when a store is designed to encourage sales personnel to approach customers.
2. I like when a store is designed to encourage customers to touch products.

3. I like when a store is designed to neatly display products in Plexiglas cases. (R)
4. I like when a store is designed to encourage customers to interact with each other.

### **In-store haptic interaction, Study 2**

#### **SHOPPING EXPERIENCE STUDY**

In this next study, we are interested in understanding what consumers like (and don't like) about various aspects of in-store shopping. Please read each statement below and indicate your level of agreement or disagreement.

1. I like when a store is designed to encourage sales personnel to approach customers.
2. I enjoy interacting with salespeople.
3. I like when a store is designed to encourage customers to touch products.
4. I like when a store is designed to encourage customers to try products.
5. I like when a store is designed to neatly display products in glass cases. (R)
6. I actively seek advice from salespeople.
7. I like when a store is designed to encourage customers to interact with each other.
8. I dislike being in a crowded area. (R)
9. I like to browse touch screen devices to obtain additional product information.
10. I like to chat with sales personnel to obtain additional product information.

### **Online vs. offline shopping preferences, Study 2**

In this next study, we are interested understanding what consumers like and don't like about online vs. offline shopping. All other things being equal (price, assortment, availability...), when I have to purchase something I would...

- i. 1 = definitely go to a store, 7 = definitely browse a website
- ii. 1 = definitely buy it offline, 7 = definitely buy it online

Below is a list of shopping attributes. Please rate each one in terms of which you think is better in terms of the online vs. offline shopping experience.

1. Shopping enjoyment
2. Quickness of shopping
3. Selection
4. Price
5. Product quality ascertainment
6. Personalized advice
7. Product exchange
8. Customer service interaction

1 = shopping offline is much better; 9 = shopping online is much better

### **Preference for haptic-related product name, Study 2**

Chocolatier wants to launch a new chocolate praline: "A chewy-soft center of premium caramel enrobed in milk chocolate." Based on its description, which one of the two names below would you choose for this new praline?

- A. Milk Caramel Embrace (haptic-related product name)
- B. Milk Caramel Vortex (non-haptic-related product name)

### **In-store haptic interaction, Study 3**

#### **SHOPPING EXPERIENCE STUDY**

In this study, we are interested in understanding how likely you are to respond to various aspects of in-store shopping now. We would like you to read several selected short scenarios and to imagine that each scenario is true. Do your best to pretend that you are actually in the scenario. Then answer each question as if you were in the scenario at this very moment.

Imagine that you are looking for a new item at a department store right now...

1. Imagine that you want to ask some questions about a new item to a salesperson near you.  
How likely are you to tap a salesperson on the shoulder to get her/his attention at this moment? [functional, initiating]
2. Imagine that a salesperson helps you find a product that you need and s/he touches you on the arm to show it to you because you can't see it. How likely are you to be bothered when the salesperson touches you at this moment? (R) [functional, receiving]
3. Imagine that a salesperson drops something and cannot be reached/warned otherwise (e.g., he/she is wearing headphones). How likely are you to tap the salesperson on the shoulder at this moment? [functional, initiating]
4. Imagine that a salesperson accidentally bumps into you while you are shopping. How likely are you to be bothered by it at this moment? (R) [imposed, receiving]
5. Imagine that a salesperson helps you take your size measurements (e.g., tailors a suit, measures your waist). How likely are you to be bothered by the salesperson touching you at this moment? (R) [functional, receiving]
6. Imagine that you are passing through an extremely crowded shopping aisle where salespeople are arranging products on the shelves. How likely are you to gently touch a salesperson on the back to make them move aside for you to pass at this moment? [functional, initiating]
7. Imagine that you ask a salesperson of your same sex to help you wear something (e.g., zip a dress, knot a tie). How likely are you to feel uncomfortable at this moment? (R) [functional, receiving]
8. Imagine that a salesperson approaches you to ask if you're aware of a sale that's going on



right now. As she's/he's telling you about the sale, she/he touches you on the arm. How likely are you to feel uncomfortable at this moment? (R) [imposed, receiving]

9. Imagine that you are talking to a salesperson in a store, and he/she says there is the perfect product for you just around the corner. Once you examine it, you thank the salesperson for the help, and he/she gives you a pat on the back in return. How likely are you to feel uncomfortable at this moment? (R) [imposed, receiving]
10. Imagine that you are trying to figure out your way around this new unfamiliar store. How likely are you to appreciate the fact that relevant isles are clearly marked at this moment?
11. Imagine that you are trying to find a specific product. How likely are to you appreciate the fact that the retailer has a small assortment to choose from at this moment?
12. Imagine that there is a long cue at checkout. How likely are to use self-service check-out lanes at this moment?
13. Imagine that you are unsure about a product price. How likely are you to use the retailer's bar-code scanners to confirm product prices at this moment?
14. Imagine that you are unsure about which product to choose. How likely are you to look for product reviews on your smartphone at this moment?
15. Imagine that you have been waiting in line at checkout for more than 10 minutes. How likely are you to be bothered by it at this moment?
16. Imagine that you are unsure about which product to choose. How likely are you to find it annoying if a salesperson cannot answer one of your product questions at this moment?

1 = not at all likely, 7 = very much likely

Items 1 to 9 refer to functional or imposed in-store touch interactions

Items 10 to 16 refer to non-touch in-store touch interactions (filler items)

## **Appendix B. Ancillary Measures**

### **Contamination Cognitions Scale (CSS; Deacon and Olatunji 2007), Study 1**

Below is a list of objects. Please read the description of each object and try to imagine what would happen if you touched that object and were unable to wash your hands afterward. For each object listed, answer two questions:

1. What is the likelihood that touching the object would result in your being contaminated?

Answer using the following 0-100 scale:

0 = not at all likely, 50 = moderately likely, 100 = extremely likely

2. If you actually did become contaminated by touching the object, how bad would it be?

Answer using the following 0-100 scale:

0 = not at all bad, 50 = moderately bad, 100 = extremely bad

1. Toilet handle in public restroom\*
2. Toilet seat in public restroom
3. Sink faucet in public restroom
4. Public door handles\*
5. Public workout equipment\*
6. Public telephone receivers
7. Stairway railings
8. Elevator buttons\*
9. Animals
10. Raw meat
11. Money\*
12. Unwashed produce (e.g., fruits, vegetables)

13. Foods that other people have touched\*

Note. Only a subset of these objects was used in Study 1 (\*)

**Domain-specific risk-taking scale (DOSPERT; Blais and Weber 2006), Study 1**

For each of the following statements, please indicate the likelihood that you would engage in the described activity or behavior if you were to find yourself in that situation.

1. Admitting that your tastes are different from those of a friend. (S)\*
2. Going camping in the wilderness. (R)
3. Betting a day's income at the horse races. (F)
4. Investing 10% of your annual income in a moderate growth mutual fund. (F)
5. Drinking heavily at a social function. (H/S)
6. Taking some questionable deductions on your income tax return. (E)
7. Disagreeing with an authority figure on a major issue. (S)\*
8. Betting a day's income at a high-stake poker game. (F)
9. Having an affair with a married man/woman. (E)
10. Passing off somebody else's work as your own. (E)
11. Going down a ski run that is beyond your ability. (R)
12. Investing 5% of your annual income in a very speculative stock. (F)
13. Going whitewater rafting at high water in the spring. (R)
14. Betting a day's income on the outcome of a sporting event (F)
15. Engaging in unprotected sex. (H/S)
16. Revealing a friend's secret to someone else. (E)
17. Driving a car without wearing a seat belt. (H/S)
18. Investing 10% of your annual income in a new business venture. (F)

19. Taking a skydiving class. (R)
20. Riding a motorcycle without a helmet. (H/S)
21. Choosing a career that you truly enjoy over a more secure one. (S)\*
22. Speaking your mind about an unpopular issue in a meeting at work. (S)\*
23. Sunbathing without sunscreen. (H/S)
24. Bungee jumping off a tall bridge. (R)
25. Piloting a small plane. (R)
26. Walking home alone at night in an unsafe area of town. (H/S)
27. Moving to a city far away from your extended family. (S)\*
28. Starting a new career in your mid-thirties. (S)\*
29. Leaving your young children alone at home while running an errand. (E)
30. Not returning a wallet you found that contains \$200. (E)

Note. E = Ethical, F = Financial, H/S = Health/Safety, R = Recreational, and S = Social.

Note. Only a subset of these objects was used in Study 1 corresponding to the social risk-taking items (\*)

## **Preference for anthropomorphic product, Study 2**

### **CHOCOLATE COMPANY PILOT STUDY**

In this study, we are interested in understanding consumer preferences for chocolate products. Chocolatier is a Belgian chocolate manufacturer that competes with other companies primarily on the basis of responding to changes in consumer preferences. For this reason, its managers often pilot-test consumers' preferences for new products they are willing to introduce on the market. On the next pages, you will be asked to express your preferences for new products and new products name that the company is willing to produce and adopt.

[page break]

## NEW PRODUCT EVALUATION

Chocolatier wants to launch a high-end chocolate sculpture product selection for its customers. So far, its maître chocolatiers have developed two prototypes (A and B below). Please take a close look at the two prototypes and evaluate them as you would do if you had to choose between them right now.



Prototype A



Prototype B

1. Which one would you choose right now?
2. Which one is the most appealing to you right now?
3. Which one would you spend more on right now?
4. Which one is the most attractive to you right now?

1 = definitely prototype A, 5 = neither prototype A or B, 9 = definitely prototype B

Note. Images A and B were presented in counterbalanced (left, right; right, left) order between participants.

## Appendix C. Loneliness manipulation used in Study 2

### STUDY ON PERSONAL EXPERIENCES

In this study, we are interested in better understanding how people feel about certain situations

that they encounter in everyday life. To accomplish this, you will be asked to recall and write about a particular personal experience and the emotions relating to a particular topic. The topic you receive will be randomly selected from a set. It is very important that you are both accurate and informative. Thus, please make a strong effort. When you are ready, please click on the "Continue" button below.

[control group]

For this task, we are interested in how you would describe walking around the grocery store. That is, think of what it is like to walk around the grocery store and spend a few minutes writing about the experience. Don't worry about spelling or grammar; just write down as much detail about the experience as possible.

[loneliness group]

For this task, we are interested in how people describe the experience of feeling lonely. Think of a time when you felt lonely and spend a few minutes writing about the experience. Don't worry about spelling or grammar; just write down as much detail about the experience as possible.

### **Appendix D. Trust boost manipulation pretest, Study 3**

We pretested two different texts for the trust boost manipulation and we selected the best one based on the manipulation check results. Note. In the main study (Study 3), we used option A.

#### **VERBAL APTITUDE TASK**

Verbal aptitude tasks assess a person's ability to understand word meanings, understand word relationships and interpret detailed written information. On the following page, you will be asked to read and comprehend a randomly selected newspaper article as well as to write supporting arguments about its main claim.

[trust boost option A]

Selected article: PEOPLE ARE MORE TRUSTWORTHY THAN WE THINK

How do people come to believe that others are so much less trustworthy than themselves? Much as we might prefer otherwise, there's solid evidence that, on average, people are quite cynical. But is this cynicism justified? Psychological research suggests not. Rather, most of us have what researchers describe as naïve cynicism, that is cynicism that is misguided.

When thinking about strangers, studies have shown that people think others are more selfishly motivated than they really are and that others are less helpful than they really are. Researchers at Columbia University tested people's estimation of how likely would strangers help them out on a variety of tasks and they found that participants underestimated how likely would others help them by as much as 100 percent.

Similarly, in financial games studies that psychologists conducted, people are remarkably cynical about the trustworthiness of others. In one experiment people honored the trust placed in them between 80 and 90 percent of the time, but only estimated that others would honor their trust about 50 percent of the time.

Finally, in another study, researchers asked participants to predict what would happen if they gave money to a stranger who then had the option to either split the cash with them or keep it. The givers thought the receivers would share the money around 45 percent of the time, but the actual number was nearly 80 percent of the time.

For the next three minutes, please write in support of this position. Explain the merits of this position (i.e., why people are more trustworthy than we think), and give an example of a time in which you trusted another person and you benefited from it.

[trust boost option B]

Selected article: TRUSTING OTHERS IS GOOD

Human beings need to trust. Trust makes it possible to consistently invest interest and enjoyment in one another. There could be no civilization, enduring health, or mental wellness without trust. The most ordinary interpersonal, commercial, medical, and legal interactions would be impossible without some degree of trust.

There are several benefits of trusting that contributes to people's overall happiness and state of wellbeing, including a decrease in anxiety levels. Trust also enables people to live in the moment, enjoying the people and situations surrounding them. Research suggests that people who trust are less likely to lie or to be unhappy and more likely to be sought out as a friend. Moreover, in a recent study conducted by the British Medical Journal, interpersonal trust has been found to exert protective effects on health. A growing body of studies has shown that higher levels of trust are associated with better health, lower mortality, and better wellbeing. Moreover, lower levels of trust are associated with higher rates of most major causes of death, including heart disease, cancers, and violent deaths, and have preceded a change from good health to poor health, along with a decline in happiness.

For the next three minutes, please write in support of this position. Explain the merits of this position (i.e., why it is the best to trust others), and give an example of a time in which you trusted another person and you benefited from it.



[control group]

**Selected article: SHELF EFFACEMENT: HOW NOT TO ORGANISE YOUR BOOKSHELVES**

Talk about spineless: the new trend in home decor is backward-looking – literally. If you’re in search of a storage solution that won’t mar the boring – sorry “neutral” – look of a beige colour scheme, simply turn your books spines in, pages out. Back in October, design blog Apartment Therapy shared one of these backwards bookshelves on its Instagram account, with advice for emulating the look. (“Books don’t match your decor? Don’t fret ... Flip them for a perfectly coordinated look.”) US morning show Today called it “a beautiful thing to try,” and, naturally, it’s all over Pinterest. I’m not against incorporating books into a decorating scheme.

Organising them by colour so that shelves resemble a rainbow is cheerful, and I also love the inventiveness of making a low-cost Christmas “tree” out of books. But those shelving methods add colour and interest to a person’s life – much like literature – rather than treating books as nothing more than wallpaper.

For the next three minutes, please write in support of this position. Explain the merits of this position (i.e., why flipping books to match a neutral home décor is boring) and give an example of a trending habit that you do not approve of. (Please note that after three minutes you will be able to click to the next page)

[manipulation check]

**STUDY ON GENERAL ATTITUDES**

In this study, we are interested in the attitudes and opinions of people on a wide range of topics. Below is a list of statements. Please read through each item carefully and let us know your

attitudes and opinions. There are no right or wrong answers, simply answer as honestly as you can. Please indicate how you feel about each statement at this moment:

1. TV is my main form of entertainment.
2. I like to try new things
3. In general, people are trustworthy [target manipulation check item]
4. Financial security is very important to me.
5. Overall, I'd say I am pretty happy.
6. I am a "spender" rather than a "saver."
7. I would rather spend a quiet evening at home than go out to a party.
8. My family is the single most important thing to me.
9. I think I have more self-confidence than most people.
10. A woman's life is fulfilled only if she can provide a happy home for her family.
11. My social status is an important part of my life.
12. It's very important to me to feel I am a part of a group.

1 = strongly disagree, 7 = strongly agree

### *Pretest Results*

When comparing trust boost option A and control, the one-way ANOVA on the manipulation items showed that the manipulation had a marginal significant effect ( $F(1, 77) = 2.80, p = .10$ ). Compared to participants in the control condition ( $M = 4.46, SD = 1.39$ ), participants in the trust boost condition exhibited higher agreement with the item stating that other people are trustworthy ( $M = 4.95, SD = 1.20$ ).

When comparing trust boost option B and control, the one-way ANOVA on the manipulation items showed that the manipulation had a marginal significant effect ( $F(1, 78) =$

.14,  $p = .71$ ). Compared to participants in the control condition ( $M = 4.46$ ,  $SD = 1.39$ ), participants in the trust boost condition did not exhibit higher agreement with the item stating that other people are trustworthy ( $M = 4.59$ ,  $SD = 1.58$ ).

Based on the above results, we decided to use option A for our main study.

## **Appendix E. Comfort with in-store haptic interaction measure pretest, Study 3**

### **SHOPPING SCENARIOS STUDY**

In this study, we would like you to read several short scenarios depicting situations you might encounter while shopping in a department store and to answer a few questions about them.

When you are ready, please click on continue.

>>

Consider the following situations in which you are looking for a new item at a department store right now.

[participants were shown each scenario on a separate page]

1. Imagine that you want to ask some questions about a new item to a salesperson near you.  
You tap a salesperson on the shoulder to get her/his attention.
2. Imagine that a salesperson helps you find a product that you need, and s/he touches you on the arm to show it to you.
3. Imagine that a salesperson drops something and cannot be reached/warned otherwise (e.g., he/she is wearing headphones) so you tap him/her on the shoulder to do so.
4. Imagine that a salesperson accidentally bumps into you while you are shopping.
5. Imagine that a salesperson helps you take your size measurements (e.g., tailors a suit, measures your waist).
6. Imagine that you are passing through an extremely crowded shopping aisle where

salespeople are arranging products on the shelves. To make them move aside for you to pass, you gently touch a salesperson on the back.

7. Imagine that you ask a salesperson of your same sex to help you wear something (e.g., zip a dress, knot a tie).
8. Imagine that a salesperson approaches you to ask if you're aware of a sale that's going on right now. As he's telling you about the sale, he touches you on the arm.
9. Imagine that you are talking to a salesperson in a store, and he/she says there is the perfect product for you just around the corner. Once you examine it, you thank the salesperson for the help, and he/she gives you a pat on the back in return.
10. Imagine that you are trying to figure out your way around this new unfamiliar store and that you begin to appreciate the fact that relevant aisles are clearly marked.
11. Imagine that you are trying to find a specific product and that you realize that is good that the retailer does not have a huge assortment.
12. Imagine that there is a long cue at checkout and you decide to use self-service check-out lanes.
13. Imagine that you are unsure about a product price and you use the retailer's bar-code scanners to confirm it.
14. Imagine that you are unsure about which product to choose and you look for product reviews on your smartphone.
15. Imagine that you have been waiting in line at checkout for more than 10 minutes.
16. Imagine that you are unsure about which product to choose and you are annoyed by the fact that a salesperson cannot answer one of your product questions.

[participants were shown the following questions regarding each of the above scenarios]

The scenario wording is clear.

1 = not at all, 7 = very much

The situation described is realistic.

1 = not at all, 7 = very much

The situation described involves interpersonal touch (i.e., someone touching another person).

1 = Yes, 2 = No

The situation described involves receiving interpersonal touch (i.e., being touched by another person).

1 = not at all, 7 = very much

The situation described involves initiating interpersonal touch (i.e., touching another person).

1 = not at all, 7 = very much

The situation described involves interpersonal touch that is intimate/relational, meaning that it serves a relationship closeness goal (e.g., holding someone's hand to comfort him/her).

1 = not at all, 7 = very much

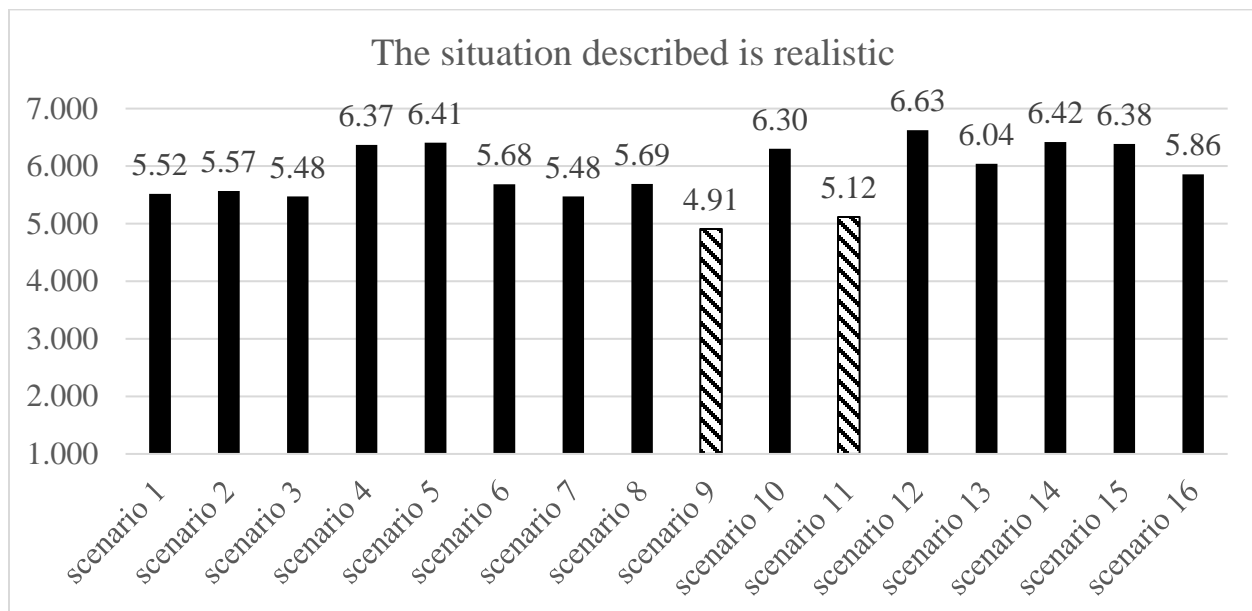
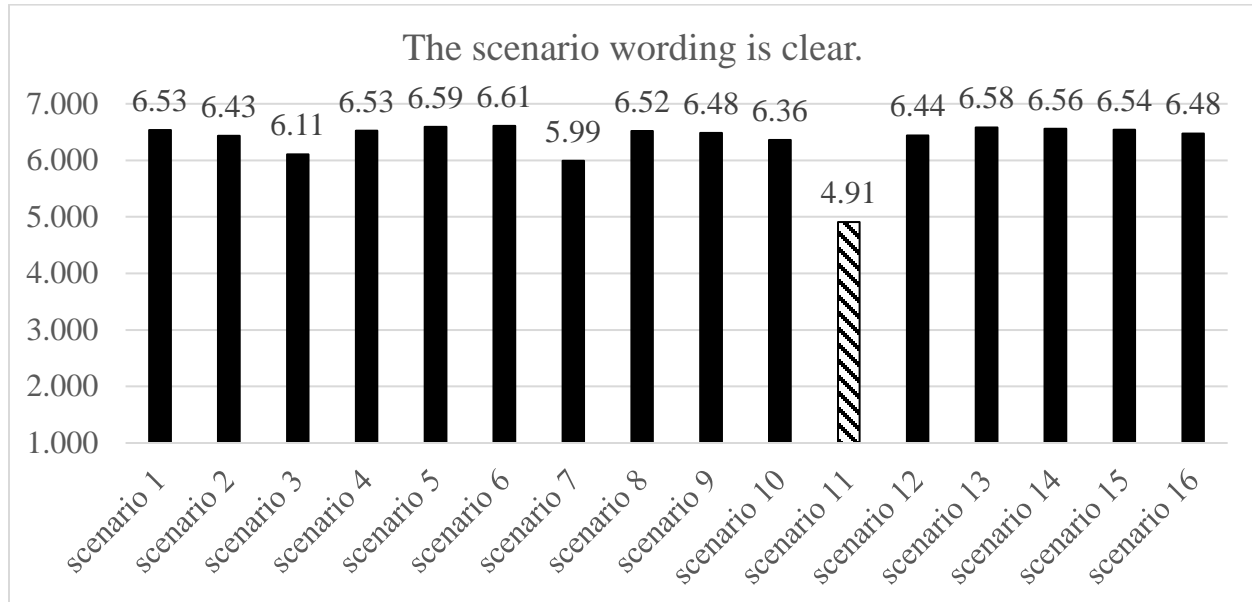
The situation described involves interpersonal touch that is functional, meaning that it serves a non-relational goal (e.g., airport security screening to catch a flight).

1 = not at all, 7 = very much

The situation described involves interpersonal touch that is imposed, meaning that it is undesired and/or not personally selected (e.g., being inadvertently touched in crowded public transport).

1=not at all; 7=very much

## Pretest Results

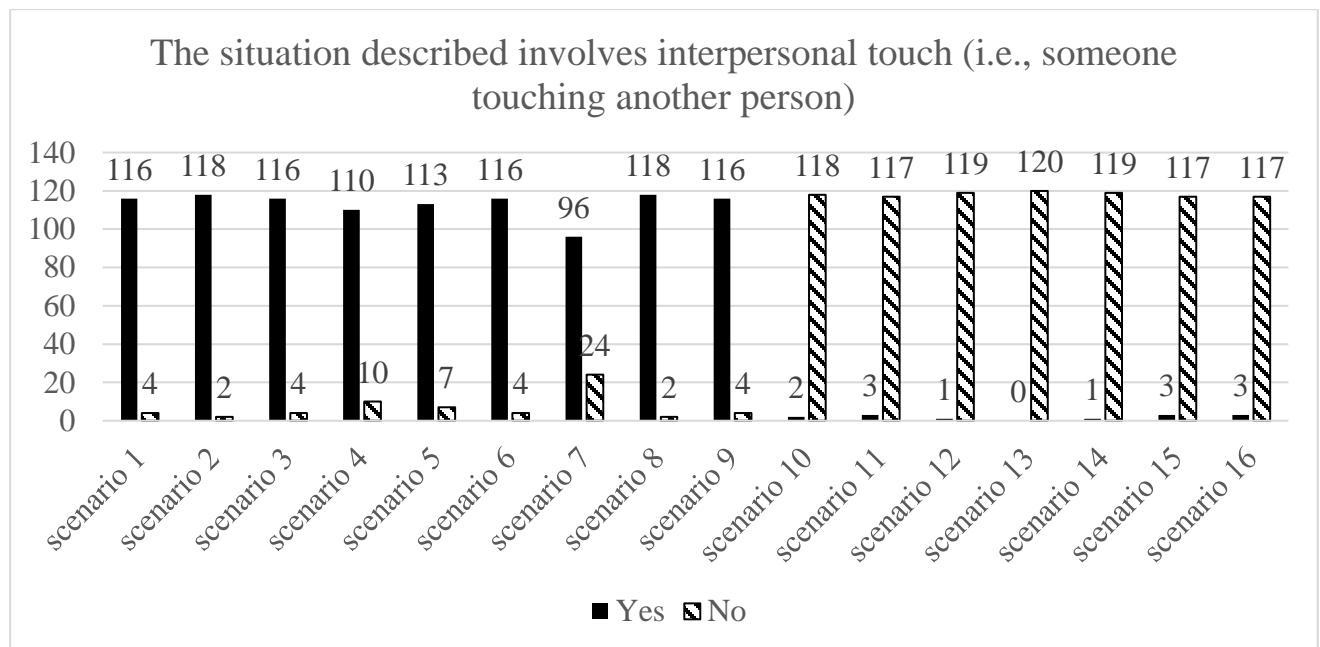


Two items stand out in term of less credibility:

- scenario 9 “Imagine that you are talking to a salesperson in a store, and he/she says there is the perfect product for you just around the corner. Once you examine it, you thank the salesperson for the help, and he/she gives you a pat on the back in return.” ( $M = 4.91$ )
- scenario 11 “Imagine that you are trying to find a specific product and that you realize

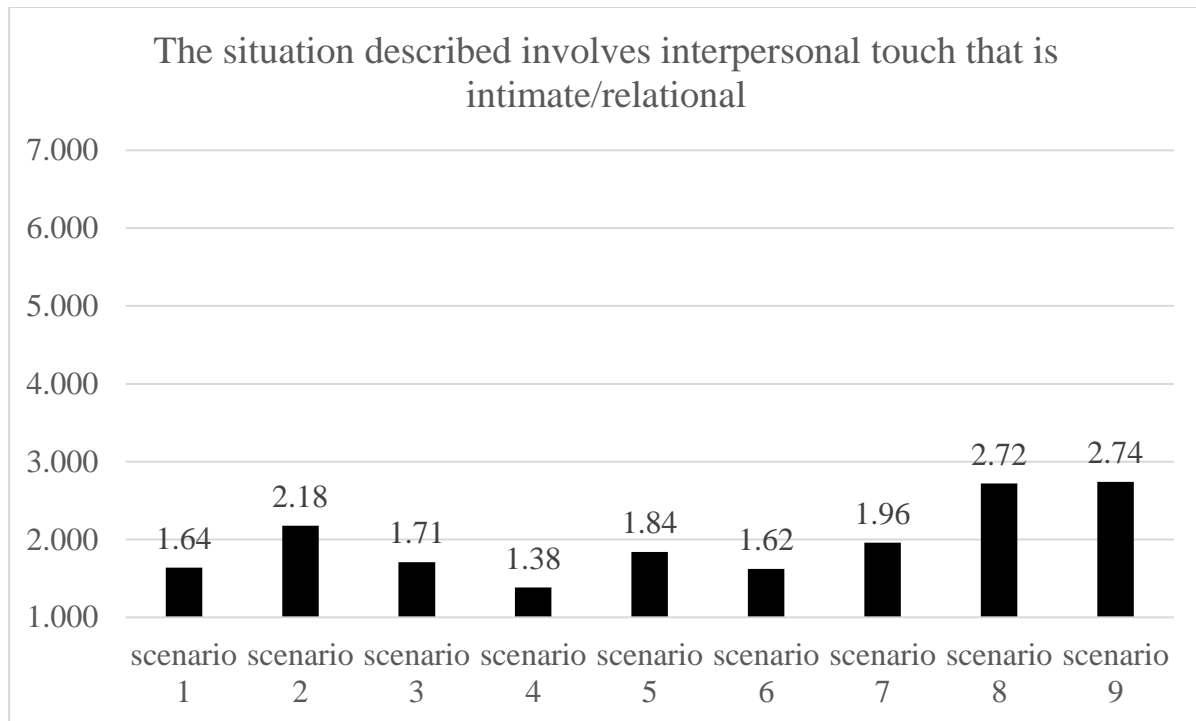
that is good that the retailer does not have a huge assortment.” ( $M = 5.12$ ).

And scenario 11 scores low on clarity. However, their means are well-above the mid-point and the scenario 11 was not clear in terms of wording so it might be due to that. We changed the wording from “Imagine that you are trying to find a specific product and that you realize that is good that the retailer does not have a huge assortment.” to “Imagine that you are trying to find a specific product. How likely are to you appreciate the fact that the retailer has a small assortment at this moment?” and retained the three scenarios for the main study.

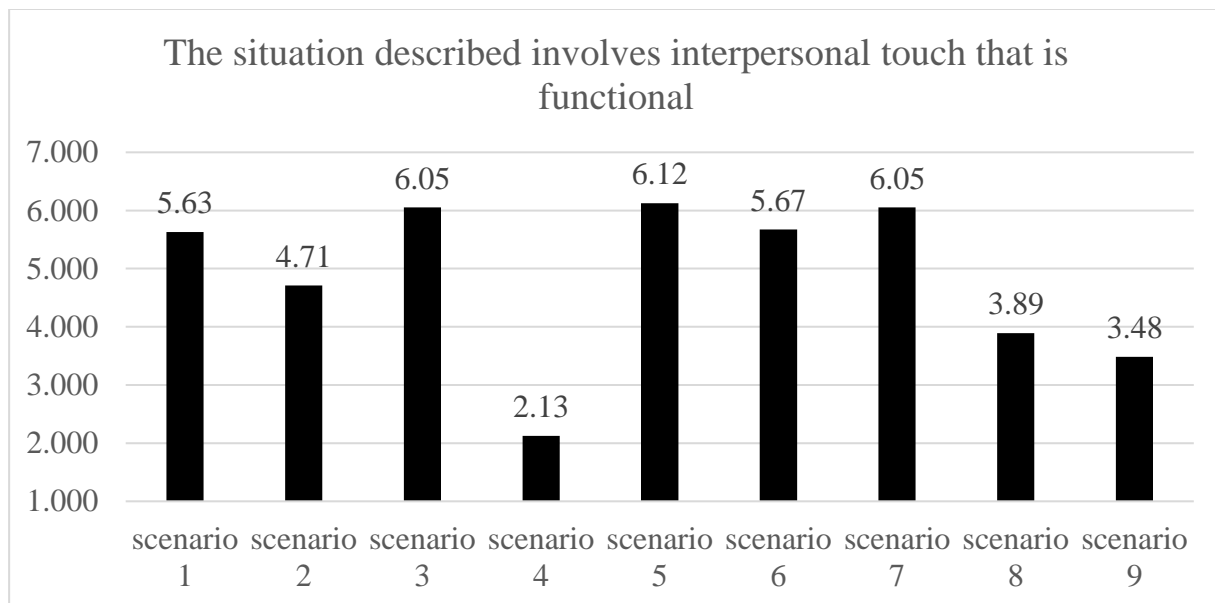


As the graph above suggests, all participants correctly identified the first 9 scenario as involving touch and the seven filler scenarios as in involving no touch.

Regarding the specific typology of touch depicted we found:

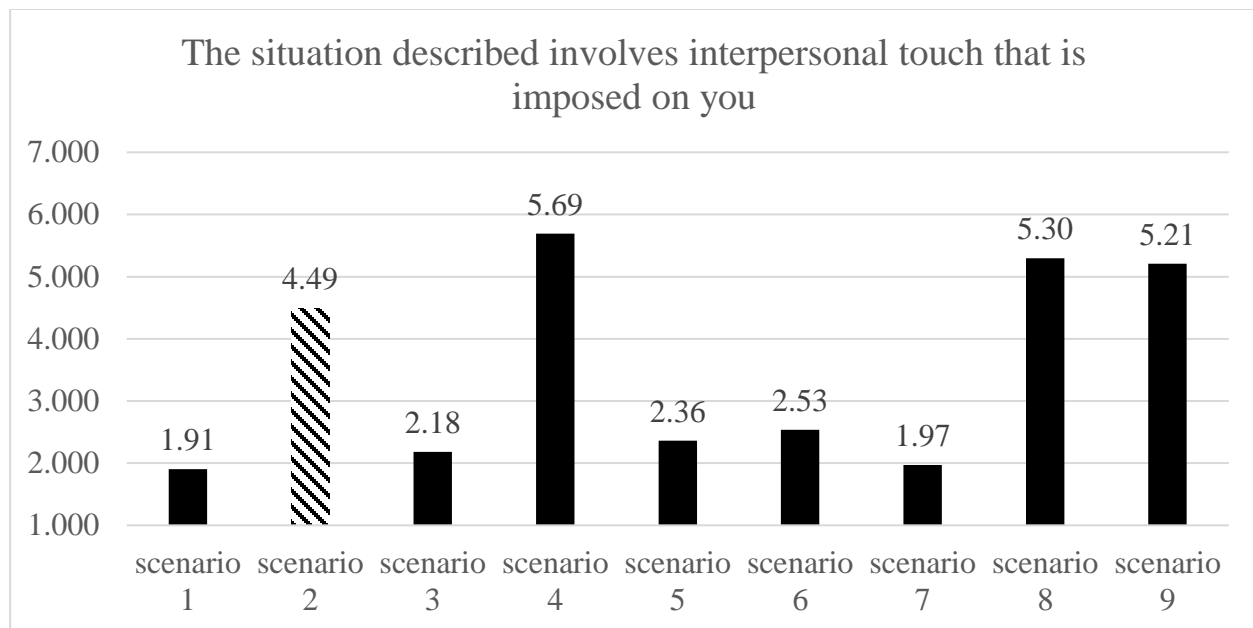


As expected, as the figure above shows, no scenario was classified as depicting intimate/relational touch.



As expected, scenarios 1, 2, 3, 5, 6, 7 were correctly identified as depicting functional touch.





As expected, scenarios 4, 8, 9 were correctly identified as depicting imposed touch. However, scenario 2 seems to be wrongfully classified as imposed instead of functional. We changed the wording from “Imagine that a salesperson helps you find a product that you need, and s/he touches you on the arm to show it to you.” to “Imagine that a salesperson helps you find a product that you need, and s/he touches you on the arm to show it to you because you can't see it.” and we retained the item to be used in Study 3

## GENERAL CONCLUSION

To conclude, with my three essays, I examine how consumers react to aversive stimuli in ways that were not foreseen and how consumers' characteristics might affect whether a stimulus is deemed aversive. Understanding what motivates unconscious behaviors in various consumption domains has important implications for how marketers design their initiatives and for consumers' generalized well-being.

The first essay focused on how feelings of physical and moral disgust can be threatening to a consumer's sense of self and motivate them to engage in compensatory consumption. Through a single-paper meta-analysis based on the results of eight individual experiments using multiple manipulations and measures, I show that that physical disgust decreases consumers' sense of power, which prompts them to consume conspicuous goods in an effort to restore their feelings of power. In contrast, moral disgust decreases consumers' sense of belonging, causing them to act prosocially, in order to restore their sense of belongingness. Marketers often employ such strong images to scare consumers or to break through the advertising clutter; my research provides new insight into the specific subconscious behavioral consequences such aversive images entail.

The second essay explored how consumers react when firms stop offering them unconditional gifts. Generally, firms spoil their customers to elicit feelings of gratitude, but my findings show that past the first time they receive a gift, a sense of entitlement (i.e., "I deserve this") builds up and overcomes gratefulness. Four experiments demonstrate that ending unconditional business-to-consumer gift-giving initiatives puts firms at greater risk of retaliation from the customers they spoiled. Offering valuable gifts repeatedly and regularly increases customers' sense of entitlement, which triggers negative behavioral intentions towards the firm

when gifting ends (e.g., boycotting, buying from competitors, spread negative WOM). Beyond its theoretical contribution, this research offers managerial insights on how to design a promotional program that can avoid elevating customer entitlement and prevent customer negative behavioral intentions upon termination.

Finally, the third essay examines how loneliness affects consumers' preferences for products and services that do or do not require interpersonal touch and interaction (e.g., getting a massage vs. shopping online). Common wisdom might suggest that feeling lonely would prompt individuals to seek reconnection with others, namely through touching or being touched. However, I show that chronically lonely individuals shy away from interpersonal interactions involving touch. Because chronic loneliness creates a negative-feedback loop that reinforces loneliness, lonely participants report lower levels of interpersonal trust and report feeling less comfortable touching and being touched by others. In the consumer domain, I show that this discomfort spills over to in-store interaction with salespeople and other customers. My findings provide evidence that there are instances in which marketers' investments in customer interaction and haptics might be unwarranted.

**Titre :** L'influence des états aversifs sur le comportement du consommateur

**Mots clés :** *aversion, dégoût, droit des consommateurs, solitude, comportements non intentionnels*

**Résumé :** Dans cette thèse, j'examine l'influence d'états aversifs (e.g., émotions désagréables, issues indésirables) sur les motivations et les comportements des consommateurs. Dans le premier essai, j'explore comment des sentiments de dégoût physique ou moral peuvent mettre en péril l'estime de soi des consommateurs et les motiver à se livrer à de la consommation compensatrice. Dans le deuxième essai, j'examine pourquoi et à quels moments les consommateurs font preuve de sentiments négatifs à l'égard des entreprises qui cessent de distribuer gratuitement des échantillons ou petits cadeaux aux consommateurs. Dans le troisième essai, j'explore comment la solitude affecte les préférences des consommateurs pour des produits et services qui peuvent ou non nécessiter des interactions interpersonnelles

(ex : se faire masser vs. faire des achats en ligne). Considérés ensemble, ces trois essais contribuent à la littérature sur l'émotion, les menaces identitaires, et la consommation compensatrice, à la littérature sur les promotions commerciales et à la littérature sur la solitude. De plus, les résultats ont des implications pour les praticiens en marketing en ce qui concerne la publicité, le design des promotions commerciales, et l'haptique des consommateurs. Finalement, ces travaux de recherche offrent de nouvelles perspectives concernant le bien-être des consommateurs en soulignant les conséquences inattendues des actions des marketers qui cherchent à bénéficier aux consommateurs mais génèrent en réalité des comportements compensateurs pour faire face à leur aversion.

**Title :** Aversive States Affecting Consumer Behavior

**Keywords :** *aversiveness, disgust, customer entitlement, loneliness, unconscious behavioral tendencies*

**Abstract :** In this dissertation, I examine the influence of aversive states (e.g., unpleasant emotions, undesired outcomes) on consumers' motivations and behaviors. In essay 1, I explore how feelings of physical and moral disgust can be threatening to consumers' sense of self and motivate them to engage in compensatory consumption. In essay 2, I investigate why and when consumers exhibit negative behavioral intentions against firms that terminate unconditional business-to-consumer gift-giving initiatives. In essay 3, I explore how loneliness affects consumers' preferences for products and services that do or do not require interpersonal touch and interaction (e.g., getting a massage vs. shopping online).

Together, the three essays contribute to the literature on emotion, identity threats, and compensatory consumption, to the literature on sales promotion, and to the literature on loneliness. Moreover, the research findings inform marketing practice in the fields of advertising, sales promotions design, and consumer haptics. Finally, this research provides insights into consumer welfare by bringing attention to the unforeseen consequences of marketers' actions that seek to benefit the consumers but instead generate compensatory behaviors to cope with their aversiveness.