

# **ESSAYS EXAMINING ROLE- BASED BEHAVIORS**

A Dissertation  
Presented to  
The Academic Faculty

**By**  
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In Partial Fulfillment  
Of the Requirements for the Degree  
Doctor of Philosophy in the  
Scheller College of Business

**Georgia Institute of Technology**  
**August 2019**

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## ESSAYS EXAMINING ROLE- BASED BEHAVIORS

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To my family and friends who have supported me every step of the way

## **ACKNOWLEDGMENTS**

There are many people who played a role in bringing this dissertation to completion. First and foremost, I want to thank both my co-advisors Samuel Bond and Jeffrey R. Parker for their expertise, guidance and endless support throughout my doctoral program. They had truly incredible human beings and scholars. I couldn't have asked for better people as mentors.

I would also like to thank Sara Dommer for lots of meaningful feedback, advice and constructive criticisms that went a long way to make me a better researcher. I would also like to thank the faculty members who served on my committee: Ryan Hamilton and Donald R. Lehmann. My dissertation and my research as a whole was shaped more professionally with their feedback and encouragement. Outside of my committee, I am especially grateful to Ajay Kohli for supporting me professionally and personally throughout my program.

I would like to thank the PhD program office, the IT support office and of course my fellow PhD students, for making the journey a lot less bumpy. The camaraderie that exists within the program is something that I will never forget.

Lastly, I would like to thank my family for all their love and encouragement. My wife Pallabita, who made numerous sacrifices to make this happen. I love you. My Daughter Anaika, who came to our life three years back and whose smiles takes away all the frustrations and tiredness after a hard day. My parents, Tapash and Chandana, who always believed in me and taught me to never give up. Thank you all.

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## SUMMARY

My research examines role-based behavior in consumption contexts, with a particular focus on integrating contemporary social-role and identity theories with other, seemingly disparate theories like tokenism and mental accounting. My two essays are linked by the idea that “who we are” in terms of our social roles and identities affects judgments, attitudes, and evaluations of consumption choices in a wide array of previously unexamined contexts. My research shows that people often end up drawing on their social identity and roles, deliberately or not, in their response to the outside world. Furthermore, I show that this tendency has important consequences for marketers and consumers alike. The specifics are as follows.

Essay 1 of my dissertation examines how the extent to which an individual’s life roles (e.g., “employee” and “wife”) are integrated (i.e., the extent to which the psychological barriers between two or more life-roles are permeable and frequently traversed) moderates the fungibility of mentally-allocated funds. Specifically, I find that the more integrated two life roles are, the greater the cross-account fungibility of resources allocated to mental accounts corresponding with those roles (i.e., role-aligned accounts). Accordingly, individuals with more integrated roles are (i) more able to circumvent the constraints typically imposed by mental accounts and (ii) more likely to utilize resources from a mental account corresponding with one role to service the needs/wants of the other role. I obtain evidence that this effect arises because more integrated (vs. segmented) roles beget a higher degree of perceived psychological connectedness—the extent to which the individual feels two roles share defining psychological features. Perceptions of psychological connectedness allow for costs incurred in one role to be offset by benefits gained in another, because the roles share psychological properties like beliefs, values, ideals,

and goals. In contrast, I find no evidence that people with more integrated roles construct or maintain role-aligned mental accounts differently than people with more segmented roles.

Essay 2 of my dissertation examines how being a token (often the lone representative of one's social category) in a transient social group can influence private evaluations of identity-linked products. Five studies find that being an incidental token member in a transient group lowers private evaluations of products that typify the negative stereotypes of the tokenized identity. I argue that incidental tokenism activates negative stereotypes associated with the tokenized identity, which subsequently leads to a desire to disassociate specifically from identity-linked products that typify those stereotypes (as opposed to all identity-linked products in general). Consistent with this theorizing, similar results emerge when negative stereotypes are activated directly, and the effect is attenuated when tokenized individuals are self-affirmed. These results demonstrate the largely unexamined consequences of being a token group member on private evaluations (vs. public behavior) in subjective, preference-based (vs. objective, performance-based) domains.

In addition to contributing to the broad literature on identity-based consumption, my dissertation essays take a more granular approach. Together, the two essays reveal that the influence of our roles and identities on our consumption choices is much more nuanced than previously thought.

## **CHAPTER 1**

### **INTRODUCTION**

Most of us perceive that we have a good sense of “who we are,” in terms of both our ascribed identities (our gender, our ethnicity, etc.) and our avowed identities (the jobs we perform, our friendship , other groups in which are members, etc.). In fact, understanding “who we are” is a fundamental human motivation (Reed et. al 2012). Consequently, we perceive ourselves as having or lacking certain physical attributes, character traits, and abilities, and we believe that we belong or do not belong to various social groups (Kettle and Haubl 2011). This overall sense of self has been described in the literature using several different terms, including “self-concept,” “social-identity,” and “social-role” (e.g., Belk 1988; Ellemers, Spears, and Doosje 2002; Markus and Kunda 1986; Markus and Wurf 1987; Thoits 1983). The terms “role” and “social-identity” have been used interchangeably to define any category label to which a consumer self-associates either by choice or by endowment (Reed et.al 2012). As such, I adopt the terms “role” (essay 1) and “social-identity” (essay 2) to refer to an actuated perspective or frame of reference that a consumer possesses, as part of the repertoire of who they are or want to appear to be.

Cognitively, roles and identities are internal mental representations that consumers use to view themselves (Reed 2000). For example, a consumer may view herself as a “mother” a “professor,” and “a runner”. Not surprisingly, these mental representations have been shown to have important consequences on consumption behavior. For example, it has been recognized for a long time that people consume in ways that are consistent with their sense of self (Levy 1959;

Sirgy 1982). Similarly, research shows that consumers react positively to a brand when they perceive congruency between their own identity and the brand's identity (Dolich 1969; Landon 1974; Fournier and Yao 1997; Reed 2004). As such, marketers try hard to associate brands with aspects of their target customers' identities, in order to increase the extent to which individuals have incorporated brands into their self-concept (self brand connections - Escalas and Bettman 2003).

While a great deal of research suggests that consumers' social identities are predictive of their consumption behavior, far less attention has been paid to the influence of structural features of the self-concept. For example, does the extent to which a consumer integrates or distinguishes considers two distinct roles (e.g., "mother" and "professor") affect consumption decisions related to those roles? Addressing this issue, Essay 1 examines how structural features of the self-concept influence the likelihood of making specific consumption choices.

A second important gap in research examining consumer identity-brand connections is that the research tends to focus mostly on positive aspects of identity. However, social identity can also have a powerful influence on the consumption of products that represent negative aspects of one's identity (for e.g., chick flicks). Such products are not inherently "bad" products. On the contrary, these products are actually quite popular and appealing to the targeted segment under most situations. Compared to its positive counterpart, the relationship between social identity and products that associate with negative aspects of the identity is more nuanced and complicated. Essay 2 addresses contexts where the correspondence (real or perceived) between certain negative aspects of one's identity and certain products may influence consumption choices.

## **Effects of Self- Structure on Fungibility of Mentally Allocated Resources**

In my first essay (chapter 2), I focus on a specific structural feature of the self-concept: the extent to which individuals have more *integrated* versus *segmented* life roles (Ashforth et al. 2000; Richter 1990). I show that greater integration between two life roles increases the cross-account fungibility of resources allocated to mental accounts that correspond" with those roles ("role-aligned accounts"). I argue and demonstrate that this happens because more integrated (vs. segmented) roles create a perception that the roles share underlying values, beliefs, ideals, and goals. This perception of psychological connectedness allows individuals to utilize resources from a mental account corresponding with one role to service the wants and needs of the other role. For example, "happiness at work" will be more connected with and more likely to influence "happiness at home" among individuals whose "work-life" and "home-life" roles are integrated. Accordingly, such individuals will recognize that an expense incurred to increase happiness in one of the two roles can be allocated to the budget assigned to the other. Consequently, such individuals should be more likely to indulge in cross-account transaction.

## **Effects of Transient Group Composition on Private Evaluation of Stereotype-Typifying Products**

For most individuals, self-concept is multi-dimensional. Accordingly, different aspects of the self-concept can be activated depending on the situational context (James 1890; Linville 1987; Stryker 1968), enhancing the likelihood that subsequent responses will be congruent with that aspect (Berger and Heath 2007; Forehand, Reed, and Deshpandé 2002; Reed 2004; Sela and Shiv 2009). Moreover, research shows that different aspects of the same identity (e.g., gender) may be activated and salient, depending on situational and environmental cues. For example,

being numerically outnumbered (e.g., being the only women in a group of mostly men) activates awareness of stereotypical traits associated with the identity (Kanter 1977). Building on this, my second essay (chapter 3) demonstrates that being an incidental token member in a transient group (e.g., a woman in a store queue containing mostly men) lowers individuals' private evaluations of products that typify negative stereotypes of the tokenized identity. To explain the result, I argue that incidental tokenism activates negative stereotypes associated with the tokenized identity, which subsequently induces a desire to disassociate from identity-linked products that typify those stereotypes, as opposed to all identity-linked products in general. Consistent with my theorizing, similar results emerge when negative stereotypes are activated directly, and the effect is attenuated when tokenized individuals are self-affirmed. Supplementing prior research examining public behavior in objective, performance-based domains, these results demonstrate the largely unexamined consequences of being a token group member on private evaluations in subjective, preference-based domains. In addition, the results provide additional evidence that individuals use their consumption choices to regulate incongruities in self-perception (Mandel et. al 2017).

## **CHAPTER 2**

# **PERCEIVED ROLE INTEGRATION INCREASES THE FUNGIBILITY OF MENTALLY-ACCOUNTED RESOURCES**

### **Introduction**

Mental accounting (Thaler 1980, 1985) has received a great deal of attention in the marketing literature, and for good reason. Despite having some nonnormative consequences (Heath and Soll 1996) and workarounds (Cheema and Soman 2006), mental accounting is at its core a self-control mechanism (Shefrin and Thaler 1992) that aids in goal pursuit (Brendl, Markman, and Higgins 1998) and can improve consumer welfare (Soman and Cheema 2011). It is therefore no surprise that the lion's share of attention has been placed on the consequences of mental accounting, including its impact on preferences (Reinholtz, Bartels, and Parker 2015), consumption (Shafir and Thaler 2006; Soman and Gourville 2001), saving (Thaler 1990), and sunk-cost effects (Heath 1995), among others. Naturally, there has been concurrent interest regarding how components of the mental accounting process such as ambiguity (Cheema and Soman 2006) and temporal framing of expenses (Atlas and Bartels 2018; Gourville 1998) moderate its consequences.

The research presented here builds on this literature and contributes to a burgeoning stream of research examining the impact of exogenous factors on mental accounting effects (Abeler and Marklein 2008; Hossain 2018; Shah, Shafir, and Mullainathan 2015). Specifically, I bridge the gap between the identity/role and mental-accounting literatures and find that greater *role integration* (Ashforth et al. 2000; Benet-Martinez et al. 2002; Linville 1987; Richter

1990)—the extent to which the psychological barriers between two or more life roles (e.g., “mother” and “executive”) are permeable and frequently traversed versus non-permeable and rarely traversed—results in greater fungibility of the resources in mental accounts corresponding with those roles, thereby increasing the likelihood of spending resources budgeted for expenses in one role to service the needs/wants of the other role. I find evidence that the effect of role integration on the fungibility of mentally-accounted resources is explained by greater perceived psychological connectedness (Bartels and Urminsky 2011; Parfit 1984) between more integrated roles.

In what follows, I conceptualize and test the predicted effect of role integration on mental accounting via psychological connectedness. I first focus on role integration, an unexamined topic in the marketing literature, and its heretofore unidentified association with psychological connectedness. I then briefly discuss the core tenets of mental accounting. Afterwards, I integrate these two literatures to derive my predictions, present a series of studies supporting my contentions, and close with a discussion of the contributions and limitations of this work.

## *THEORETICAL DEVELOPMENT*

### *Role Integration*

Contemporary self-theory posits that the self is comprised of multiple roles rather than a single, unitary self (Higgins, Klein, and Strauman 1985; James 1890; Linville 1987; Stryker



1968). For example, a woman may think of herself in terms of her various roles as a manager, spouse, sister, mother, and tennis player. These role-based self-concepts, which are synonymous with definitions of “identity” (Reed et al. 2012; Stryker and Serpe 1994), are assumed to be mentally represented as structures in a larger associative network of multiple roles. Each role, in turn, is comprised of specific functions, societal standards, and norms—which are largely exogenously determined and imposed on the individual—and values, goals, and beliefs—which are internal and specific to the individual—that collectively guide and constrain the consumer’s behavior within a given social category and context (Linville 1987; McConnell 2011; Stryker 1968).

Prior consumer behavior research has examined how multiple roles impact consumers’ decisions, but it has largely focused on the consequences of role conflict (Benet-Martinez, Leu, Lee, and Morris 2002; LeBoeuf, Shafir, and Bayuk 2010). In contrast, the current work focuses on a structural feature of the self-concept: the extent to which individuals have more *integrated* versus *segmented* life roles (Ashforth et al. 2000; Richter 1990).

Formally, role integration is the extent to which the psychological barriers between two or more life roles (e.g., “mother” and “executive”) are metaphorically permeable and frequently traversed versus non-permeable and rarely traversed (Ashforth et al. 2000; Zerubavel 1991). Behaviorally, more integrated roles are characterized by thoughts and actions associated with one role regularly arising and occurring in the other role. The opposite is true for more segmented roles. For instance, one whose work-life and home-life roles are integrated will regularly think of and engage in acts related to work while at home, and vice versa. By contrast, one whose work-life and home-life roles are segmented will rarely do these things. Role integration is not an either-or construct, but can lie at any point along a continuum between

purely integrated and purely segmented. Moreover, the extent to which any of an individual's roles are integrated at a particular point in time is influenced by many factors, including gender and family status (Richter 1990; Kossek and Ozeki 1999); the evolving functions, standards, and norms associated with the roles (Ditzfeld and Showers 2013; Linville 1987); and the extent to which the individual wishes to integrate the roles (Greenhaus & Singh, 2003; Hartman, 1997; Kossek et al., 2005; Nippert-Eng, 1996a, 1996b). Hence, role integration can vary both chronically between individuals and transiently within individuals; i.e., one may feel that two life roles are more integrated at one point in time and more segmented at another point in time).

Prior research has examined the consequences of role integration for employee well-being (Peng, Ilies, and Dimotakis 2011), satisfaction and commitment (Rothbard, Phillips, and Dumas 2005; Kahn et al. 1964), and productivity (Kossek and Ozeki 1999). However, research has not linked role integration to broader consumption-relevant behaviors, or underlying process such as mental accounting. Thus, it is not clear if or why role integration would impact the fungibility of mentally-accounted resources. To span this conceptual gap, I first propose the following, which I expand upon below: the more integrated two roles are, the greater the perceived psychological connectedness between them.

Greater role integration entails more regular psychological and behavioral alternation between roles (e.g., playing with one's children, then answering a work email, then walking the dog, then completing a business report due the next day). Conversely, greater role segmentation entails minimal alternation between roles. More frequent alternation between, and juxtaposition of, roles has psychological repercussions. For instance, there is a temporal blurring of the transitions between roles, such that it becomes less clear when one has left one role and entered the other when roles are more integrated (Ashforth et al. 2000). In addition, a person whose

work-life and home-life roles are more integrated will more regularly carry positive and negative emotions from work to home, and vice versa (Crouter 1984; Ilies, Wilson, and Wagner 2009). The opposite is true for those with more segmented work-life and home-life roles. Thus, greater role integration (vs. segmentation) involves more continuity of affective experiences across the roles (Edwards and Rothbard 2000). I contend that recognizing (or merely perceiving) the blurring of role transitions and the greater affective continuity across roles will induce greater perceived psychological connectedness between those roles, defined as the extent to which the individual feels that one role shares defining psychological properties (e.g., values, goals, and beliefs) with, and is connected to, the other role (Bartels and Urminsky 2011; Parfit 1984). Note that, per this definition, psychological connectedness pertains to the aspects of roles that are internal and specific to the individual (values, goals, and beliefs) as opposed to aspects that are exogenously determined and apply broadly to all individuals (e.g., functions, social standards, norms).

This distinction highlights a critical point: Even as two roles become more or less integrated for a given individual, the roles will remain distinct in terms of their expectations and functions (e.g., one's work-life role will continue to be a source of income, ambition, and professional achievement, while one's home-life role will continue to be a source of love, affection, and social connectedness). Thus, while individuals may explicitly recognize that two socially defined life roles (e.g., "mother" and "executive") have dissimilar expectations and functions, they may concurrently believe that the two roles share defining psychological features, including values, goals, and beliefs.

The link between role integration, which pertains to one's more concrete thoughts and actions, and psychological connectedness (hereafter, simply "connectedness"), which pertains to

one's more abstract psychological features, has not been established in prior literature. In fact, the concept of connectedness has primarily been thought of in terms of the perceived similarity of the self over time (self-continuity - Hershfield 2018). Greater perceived intertemporal connectedness has been found to have many consequences, including a higher likelihood of foregoing smaller, immediate rewards in favor of larger, later rewards (Bartels and Rips 2010; Bartels and Urminsky 2011), a lower likelihood of giving to others (Bartels, Kvaran, and Nichols 2013), and increased exercise and improved health (Rutchick, Slepian, Reyes, Pleskus, and Hershfield 2018). Importantly, perceived intertemporal connectedness can be influenced by several factors, including the type of change (positive or negative) one expects of or sees in themselves (Molouki and Bartels 2017), anticipated or experienced life-changing events (Bartels and Rips 2010), and chronic individual differences (Ersner-Hershfield, Garton, Ballard, Samanez-Larkin, and Knutson 2009). In the current research, I argue that perception of connectedness across two life roles is significantly influenced by the extent to which those roles are perceived to be integrated (vs. segmented).

### *Mental Accounting*

The concept of mental accounting posited by Thaler (1980, 1985) helps explain why spending, consumption, and investment decisions regularly deviate from normative microeconomic predictions. The most fundamental takeaway from the mental accounting literature is that resources that have been budgeted to a specific account (or have been “earmarked” for specific uses; Heath and Soll 1996) become non-fungible. For instance, once a

consumer allocates a given dollar to a specific account (e.g., food) it is significantly less likely to be spent on purchases *not* corresponding with that focal account (e.g., going to a movie). The same is often true of other resources, such as time (Rajagopal and Rha 2009).

Yet, mental accounting is not a black-and-white process, and consumers often behave as if mental accounts and potential purchases are malleable. This is, in part, because mental accounting relies on the basic principles of mental categorization (Henderson and Peterson 1992; Reinholdt, Bartels, and Parker 2015). Many mental accounts are defined vaguely at best (e.g., “entertainment”), which can make the assignment of expenses to mental accounts nondeterministic. Moreover, various expenses may be motivationally framed to make them better fit one account or the other (e.g., a dine-in movie can be classified as either “food” or “entertainment”). Doing so makes an expense more (or less) justifiable, thereby increasing (or decreasing) the likelihood of incurring it (Cheema and Soman 2006).

Thus, it has been empirically established that factors pertaining to the mental accounting process—such as the vagueness of mental accounts and the ambiguity and desirability of potential expenses—influence the apparent fungibility of mentally-accounted resources. Far less is known about how factors pertaining to the accountants themselves (i.e., individual differences) influence mental accounting effects and, more specifically, the fungibility of mentally-accounted resources. Exceptions are limited to evidence that consumers with weaker mathematical abilities (Abeler and Marklein 2008), fewer resource constraints (Shah, Shafir, and Mullainathan 2015), and more analytical (vs. holistic) cognitive styles (Hossain 2018) tend to be more influenced by mental accounting and earmarking. Notably, these factors can either persist chronically (e.g., an inherent mathematical inability or systemic poverty) or be more transient, changing over time or context (e.g., having little time but excess money or thinking holistically for certain purchases

but analytically for others). Here, I explore whether another individual-specific factor—the extent to which one’s life roles are integrated—can also moderate the fungibility of mentally-accounted resources.

### *Linking the Fungibility of Mentally-accounted Resources to Role Integration*

Many—but by no means all—mental accounts correspond with specific roles. I refer to these as *role-aligned mental accounts*. For instance, an office manager who wishes to be professional and productive at work might have mental accounts for work clothing, weekday lunches in the office cafeteria, and so on. She may also maintain mental accounts for other resources, such as time, necessary for achieving her work-role goals. Therefore, she may allocate specific spans of time in a given day, week, or month for work or work-related activities. Most likely, she will also have monetary and temporal budgets for her other roles as well (e.g., mother, friend, philanthropist, runner, etc.).

Role-aligned mental accounts serve the same purpose as more general mental accounts and (Brendl, Markman, and Higgins 1998), in that they are constructed to meet one’s goals within a specific role. Budgeting resources helps ensure that these goals are met; thus, mental accounting is a form of self-control by which the consumer protects specific resources from being spent on other tempting opportunities. In most cases, the means by which goals may be achieved will differ by role—even if the goals are abstractly similar—because expectations and functions differ across roles. For instance, feeling successful, satisfied, or happy at work can be achieved in part via professional advancement, recognition, and increased income. In turn, these

means are facilitated by lower-order means such as working long hours, purchasing and maintaining appropriate attire, and improving one's work-relevant skills. Conversely, feeling successful, satisfied, and happy at home is more likely to be achieved via developing closer personal relationships with loved ones and engaging in personally rewarding activities such as hobbies, each of which are facilitated by spending more time with loved ones and allocating funds and time for one's hobbies, respectively. Accordingly, consumers will budget resources that facilitate the means to their desired ends (i.e., goals) within given roles.

When consumers are deciding whether or not to incur a specific expense (hence the focal resource is money) or engage in a specific activity (hence the focal resource is time), they consider whether doing so will be in the service of the goal for which the mental account was constructed. The less the considered action is expected to serve the focal goal, the less likely the expense will be incurred, because resources are nonfungible); this is the basic tenet of mental accounting . However, I propose that role integration can attenuate the non-fungibility of resources allocated to role-aligned mental accounts.

Consider a consumer that is deciding if she should incur an expense that will be debited to a mental account corresponding with one role (e.g., work-life) in the service of the needs/wants of another role (e.g., home-life). As discussed above, the more segmented these roles are perceived to be, the less perceived connectedness there will be between them in terms of values, goals, and beliefs. This means that "happiness at work," as just one concrete example, will be considered distinct and separate from "happiness at home." The same will be true of other goals (e.g., satisfaction, pride, success, contentment) and values (e.g., being ethical, honest, respected). Thus, the more segmented these roles are, the less likely it is that the consumer will feel the potential expense can serve the goal or value for which the funds were originally

budgeted. Conversely, the more integrated these roles are perceived to be, the greater the perceived connectedness between them. This means that “happiness at work” will become more connected with and likely to influence “happiness at home”. Accordingly, the consumer should recognize that the potential expense can indirectly serve the goal or value for which the funds were originally. Consequently, greater perceived role integration should render resources allocated to the corresponding role-aligned mental accounts more fungible, and the consumer in should be more likely to incur the considered expense.

#### An Alternative Account for the Predicted Effect

Notwithstanding the above prediction and reasoning, there are other plausible accounts that predict similar findings. In particular, it might be the case that greater integration of any two roles increases the fungibility of resources in all the consumer’s mental accounts (i.e., overrides the entire mental accounting system). In other words, it might be possible that integrated people have one consolidated mental account that services all the needs of their various roles. I conducted a pilot study to empirically assess this alternative account.

#### *PILOT STUDY 1: DOES ROLE-INTEGRATION IMPACT GENERAL FUNGIBILITY?*

I have argued that role integration should impact the fungibility of resources between specific role-aligned mental accounts via connectedness, *not* that the integration of specific roles (e.g., work-life and home-life roles) should affect the fungibility of resources in general (as is the case with the effect of cognitive styles on mental accounting; Hossain 2018). Accordingly, pilot study 1 was designed to assess whether role integration influences the fungibility of resource in



specific role-aligned accounts, as I argue, or influences the overall fungibility of mentally-accounted resources, as the alternative account would suggest.

Eighty-eight AMT participants (after eliminating 12 participants that failed an attention-check question) were given the brief descriptions of work-life and home-life roles (M-App section 1). They were also given the brief description of the differences between integrated and segmented life roles (M-App section 2), and then completed the same chronic role-integration self-categorization used in study 1. I also collected the two continuous measures of role integration that were used as manipulation checks in chapter 2, study 1.

The primary dependent variable asked all participants to imagine that they allocated money every month to two budgets—a *home-expense budget* and a *work-expense budget*, which corresponded with the focal roles on which chronic integration was measured—and were given examples of expenses typically booked to the two budgets, similar to Cheema and Soman's (2006; experiment 1) method. Participants were then asked to indicate the extent to which they agreed that spending money from the work-expense budget on home-related expenses, or vice versa, would feel “*right*,” “*good*,” and “*easy to justify to myself*”, on 1 (strongly disagree) to 9 (strongly agree) scales.

The three perceived fungibility measures were significantly correlated ( $\alpha > .90$ ) and averaged to form a single measure of perceived fungibility. Likewise, the two role-integration measures were significantly correlated ( $r > .88$ ) and averaged to form a single measure of role integration. A linear regression revealed that higher degrees of chronic integration of one's work-life and home-life roles significantly and positively predicted the perceived fungibility of funds between participants' work-expense and home-expense budgets (i.e., role-aligned accounts;  $b = .283$ ,  $SE = .091$ ,  $t = 3.10$ ,  $p < .003$ ), as predicted.

Immediately after indicating their feelings about spending across work-life and home-life budgets, participants completed the same task for two other budget pairs: (i) *personal-hygiene expenses* and *food-expenses* (accounts that do not uniquely align with either the work-life or home-life role), and (ii) *recreation-expenses* and *home-decoration expenses* (two accounts corresponding only with the home-life role). As expected, work-home role integration did not predict the perceived fungibility of funds between participants' personal-hygiene-expense and food-expense budgets ( $b = .139, SE = .082, t = 1.65, p > .10$ ) or their home decoration-expense and recreation-expense budgets ( $b = .096, SE = .084, t = 1.08, p > .28$ ). Thus, greater role integration is not associated with greater fungibility in general but, instead, specifically with greater fungibility of resources allocated to role-aligned mental accounts.

### *Overview of Studies*

I argue that the higher degree of connectedness that accompanies greater role integration will increase the fungibility of resources across mental accounts aligned with more integrated roles, thereby allowing individuals to use funds allocated to a specific role-aligned account in pursuit of needs/wants associated with a different, yet integrated life role. I tested my predictions across four studies. Study 1 finds that transient role integration does not influence the breadth or categorization of mental accounts. Study 2 finds that chronic role integration influences the likelihood of consumers using funds from one role-aligned mental account to purchase a product that will benefit another role. Study 3 finds that manipulating, as opposed to measuring, role integration impacts what consumers will purchase from role-aligned accounts. Study 4 finds

evidence that role integration influences psychological connectedness. I conclude with a discussion on the theoretical and substantive implications of these findings, as well as the limitations of the current work and opportunities for future research.

### *STUDY 1: ROLE INTEGRATION AND CATEGORIZATION OF MENTAL ACCOUNTS*

It might be the case that more integrated roles beget fewer and broader mental accounts that span both roles (i.e., result in the integration of mental accounts as well). However, our theory does *not* suggest that individuals with integrated roles have fewer or less distinct role-aligned mental accounts. On the contrary, it is more plausible that resources (be they money, time, or other) are budgeted to facilitate lower-order means (e.g., buying new work clothes or running shoes) as opposed to higher-order goals and values (e.g., being satisfied with one's work or running achievements) directly ("you can't buy happiness"). Since the means to achieve higher-order ends are commonly role-specific, as discussed, consumers should be equally likely to maintain role-aligned mental accounts regardless of the extent to which two life roles are perceived to be integrated. Study 1 assessed this alternative account.

#### *Method*

Two-hundred one AMT participants were given brief descriptions of work-life and home-life roles (M-App section 1). Next, we manipulated participants' degree of transient role-

integration by giving participants a brief description of the differences between integrated and segmented life roles (based on extant research on this phenomenon; M-App section 2) and then randomly assigning them to either the (i) *integrated* or (ii) *segmented roles condition* in which they were asked to focus on and describe how their own work-life and home-life roles were integrated or segmented, respectively (M-App section 3).

A manipulation-check asked participants to respond to a slightly modified version of the Work-Life Role Integration-Blurring Scale (Ilies, Wilson, and Wagner 2009; Desrochers, Hilton, and Larwood 2005). Specifically, participants responded to the following two items (1 = strongly disagree, 9 = strongly agree): “It is often difficult to tell where my work life ends and my home life begins,” and “In my life, there is a clear boundary between my work life and my home life” (reverse scored). Higher scores indicated stronger chronic integration of the participants’ work- and home-life roles.

For our primary dependent measure, using a procedure similar to Cheema and Soman’s (2006; experiment 2), participants were asked to imagine that it was the beginning of the month and they were creating their budgets. They were then shown a mixed list of 20 randomly organized recurring and non-recurring expenses (see table 1) and asked to group these expenses (by clicking and dragging them) into different budgets as they saw fit—they could use as many or few of the budgets as they liked. Finally, participants were asked if they believed work-life related expenses and home-life related expenses should be placed under one overall budget or should be placed in separate budgets (1 = definitely under one overall budget, 9 = definitely under separate budgets).

TABLE 2.1: EXPENSES USED TO TEST MENTAL ACCOUNT CONSTRUCTION

Rent & utility	Gas	Weekend lunch	Weekend recreation	Groceries
Vacation car rental	Formal clothing	Hobbies	Internet bill	House maintenance
Going out with friends	New running shoes	Church donations	Movie rentals	Going out with colleagues
Cable TV	Casual clothing	Car battery	Weekday lunch	New formal shoes

### Results and Discussion

The results did not support the contention that role-integration influences mental account breadth or inclusiveness. The manipulation of role integration was successful, as indicated by the composite measure of the two work-home life blurring measures ( $r = .68$ ;  $M_{\text{integrated}} = 3.84$ ,  $SD = 2.36$  vs.  $M_{\text{segmented}} = 2.97$ ,  $SD = 1.91$ ;  $F(1, 199) = 10.26$ ,  $p < .002$ ). However, a separate one-way ANOVA revealed no significant difference in the number of budget categories formed ( $M_{\text{integrated}} = 4.94$ ,  $SD = 1.13$  vs.  $M_{\text{segmented}} = 4.96$ ,  $SD = 1.23$ ;  $F < 1$ , NS). We also found that participants, regardless of condition, generally felt that separate budgets should be maintained for work-life and home-life related expenses ( $M_{\text{integrated}} = 5.75$ ,  $SD = 2.84$ ,  $t = 2.61$ ,  $p < .01$ ;  $M_{\text{segmented}} = 6.05$ ,  $SD = 2.36$ ,  $t = 4.52$   $p < .001$ ; both significantly greater than the scale midpoint = 5). Moreover, a one-way ANOVA found no significant difference in this belief between integrated-role and segmented-role participants ( $F < 1$ , NS). Thus, role-integration was found to not significantly impact either mental account formation tendencies or broader beliefs about maintaining separate role-aligned accounts.

## STUDY 2: CHRONIC ROLE INTEGRATION AND PURCHASE DECISIONS

Study 2 placed participants in a scenario where they were confronted with a purchase that would benefit one role, but which would require the use of funds from a mental account aligned with another role. Choosing to make such a cross-account purchase would indicate that one's mentally-accounted funds are, at least somewhat, fungible.

### *Method*

One hundred seventy-five AMT participants were given the brief descriptions of work-life and home-life roles (Methodological Appendix—hereafter “M-App”—section 1). These two roles were selected for this and the majority of our studies specifically due to their ubiquity and the likelihood that participants would recognize the presence of these roles in their own lives. They were then asked to imagine that for the last few months they had been maintaining two budgets—a *home-expense budget* and a *work-expense budget*—in order to support their home-life and work-life roles, respectively. All participants were then asked to imagine they were out shopping when they came across a desktop mini-fridge, which they really liked and was of the type they had been thinking of buying for their workplace. They were also told that they would be using this fridge *only* at their workplace.

At this point, participants were randomly assigned to either the *within-budget* or *cross-budget condition*. Participants in the *cross-budget condition* were told they had already

exhausted their work-expense budget for the month (the budget from which the fridge purchase should ostensibly be made), but that there were sufficient surplus funds in their home-expense account to cover the purchase, if they so desired. Thus, if these participants wanted to purchase the mini-fridge for their workplace, they would need to do so using money from their home-expense budget (i.e., make a cross-budget purchase). Participants in the *within-budget condition* were told they had adequate funds in their office-expense budget to make the purchase. All participants were then asked, “How likely are you to buy the desktop fridge” (1 = very unlikely, 9 = very likely)?

To conclude the study, participants were given the brief description of the differences between integrated and segmented life roles (M-App section 2). Participants then indicated whether they considered themselves to either be a person with integrated or segmented work-life and home-life roles (i.e., self-categorized their chronic role-integration tendencies for these specific roles). While it is true that role integration lies along a continuum, human cognition is inherently categorical (Harnad 2017). Thus, we expected that participants would be able to meaningfully categorize their own chronic role integration tendencies. Note that assessing chronic role-integration after the main dependent measure in this study makes it highly unlikely that any found effects can be attributed to demand effects (i.e., it is unlikely one’s self-assessed chronic role-integration tendencies will be strongly influenced by a single, hypothetical choice). Finally, attention check measures asked participants to indicate (i) from which budget they would have had to purchase the mini-fridge and (ii) where the mini-fridge would be used, if they chose to purchase it.

I predicted that those with chronically integrated work-life and home-life roles would treat the money allocated to their role-aligned budgets as being more fungible and, thus, be

significantly more likely to purchase the workplace mini-fridge using their home-expense budget (i.e., make a cross-budget/account purchase) than those with segmented roles. In contrast, role-integration was not expected to influence purchase likelihoods in the within-budget condition, where participants could simply use their work-expense budget to purchase the workplace mini-fridge (i.e., the expense and the budget from which the resources would be drawn were related).

### *Results and Discussion*

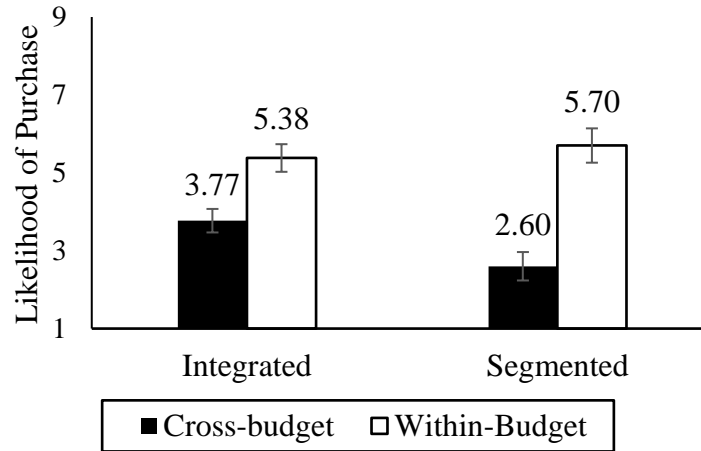
Nine participants who failed the attention check measures were dropped from the analysis. A 2 (roles: integrated vs. segmented) x 2 (budget: within vs. cross) between-subjects ANOVA with purchase likelihood as the dependent variable revealed a non-significant main effect of roles ( $M_{\text{integrated}} = 4.57$ ,  $SD = 2.39$  vs.  $M_{\text{segmented}} = 4.15$ ,  $SD = 2.27$ ;  $F(1,165) = 1.26$ ,  $p > .26$ ) but a significant main effect of budget ( $M_{\text{cross-budget}} = 3.35$ ,  $SD = 2.20$  vs.  $M_{\text{within-budget}} = 5.49$ ,  $SD = 2.54$ ;  $F(1,165) = 38.83$ ,  $p < .001$ ). Reasonably, participants were significantly more likely to purchase the mini-fridge for their work-place when there were funds available (versus not) in their work-expense budget (i.e., the budget associated with the purchase).

More critically, there was a significant interaction between role integration and budget ( $F(1, 165) = 4.03$ ,  $p = .046$ ). Planned contrasts revealed the expected pattern of results. In the cross-budget condition, participants with integrated (vs. segmented) roles were significantly more likely to purchase the workplace mini-fridge using funds earmarked for their home-expense budget ( $M_{\text{integrated}} = 3.77$ ,  $SD = 2.22$  vs.  $M_{\text{segmented}} = 2.60$ ,  $SD = 2.00$ ;  $F(1, 165) = 4.80$ ,  $p = .030$ ). In contrast, role integration did not have a significant effect in the within-budget condition



( $M_{\text{integrated}} = 5.38$ ,  $SD = 2.57$  vs.  $M_{\text{segmented}} = 5.70$ ,  $SD = 2.53$ ;  $F < 1$ , NS).

FIGURE 2.1: STUDY 2 PURCHASE LIKELIHOODS



The results of study 2 demonstrate that role integration can influence purchase decisions when the cost of the purchase will be incurred in one role-aligned mental account (e.g., a home-expense budget) but the benefit will be received in an unrelated role (e.g., one's work-life role). In contrast, as expected, role integration does not impact purchase likelihoods when the cost will be incurred and benefit received by the same role (e.g., a purchase made from a work-expense budget on a product to be used in the workplace). I reemphasize that these results were obtained by measuring chronic role integration *after* participants indicated their purchase likelihoods. Thus, a demand artifact is unlikely to be driving these results. However, there are always inherent issues with confounds when independent variables are measured as opposed to manipulated. Accordingly, I next turn our attention to manipulating transient role integration.

### STUDY 3: TRANSIENT ROLE INTEGRATION AND PURCHASE DECISIONS

Study 3 sought to replicate the findings of study 2 by manipulating (as opposed to measuring) role integration. If consumers have both chronic and transient role-integration tendencies, which has been established, then it should be possible to manipulate one's momentary perceptions of role integration. Importantly, manipulating transient role integration will rule out alternative accounts of the results reliant on potentially inherent confounds between chronic role integration and other individual differences.

#### *Method*

One hundred and fifty-five AMT participants were given the same brief descriptions of work-life and home-life roles used in the previous studies (M-app section 1). On the same screen and similar to study 2, an attention-check question asked participants to indicate the two life roles that had been described to them.

Participants were then randomly assigned to one of the two conditions. Participants in the *integrated-roles condition* read the integrated-roles description (M-App section 2), then completed the integrated-roles manipulation (M-App section 3). Thus, these participants were not presented any information about segmented roles and only explained how their work- and home-life roles were integrated. Conversely, participants in the *segmented-roles condition* read the segmented-roles description (M-App section 2), then completed the segmented-roles

manipulation (M-App section 3). Thus, these participants were not presented any information about integrated roles and only explained how their work- and home-life roles were segmented.

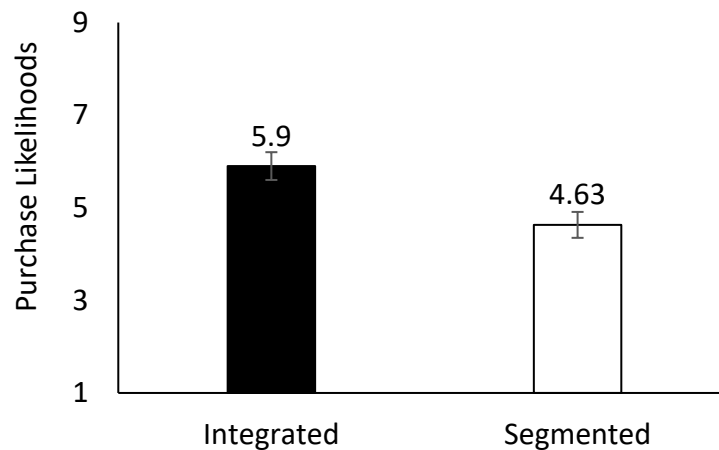
Subsequently, similar to study 1, participants were then asked to imagine that they maintained two budgets: a work budget and a home budget. Similar to Cheema and Soman (2006), participants were informed that “some typical items that are part of [the work] budget are work clothing purchases, work lunches, transportation, etc.” and that “some typical items that are part of [the home] budget are casual clothing purchases, dining out with friends, vacations, etc.”. At this point, half of the participants were asked to imagine that they were considering purchasing a coffee maker which they would be using “exclusively” in the service of one role (e.g., exclusively at work). They were told that unfortunately at this point of time, they have exhausted their budget from which the coffee maker purchase should ostensibly be made (e.g., work-expense budget) for the month and to make the purchase they would have to use some discretionary funds from their cross-budget (e.g., home-expense budget). I counterbalanced where the product would be used and, necessarily, from which budget the purchase would be made: half of the participants were told that the product would be used exclusively at work, but the purchase would be made from their home-expense budget, and half were told the opposite. Subsequently, all participants were asked “how likely are you to purchase the coffee machine for office (home) using money budgeted for home-life (office-life) expenses” on a 9-point scale with 1= not at all and 9 = a lot.

For reasons discussed in the theory section of the paper, I predicted integrated participants will willingness to spend resources from a mental account corresponding with one role to service the needs/wants of another role.

## Results and Discussion

Twelve participants who failed the attention check measures were dropped from the analysis. A one-way ANOVA using the likelihood of purchase as the variable of interest revealed that participants with integrated (vs. segmented) roles were significantly more likely to purchase the coffee machine using funds earmarked for a different but integrated role ( $M_{\text{integrated}} = 5.79, SD = 2.70$  vs.  $M_{\text{segmented}} = 4.63, SD = 2.49$ ;  $F(1, 143) = 6.99, p < .009$ ).

FIGURE 2.2: STUDY 3 PURCHASE LIKELIHOODS



Collectively, studies 2 and 3 have provided strong evidence that consumers' chronic and transient role-integration tendencies influence the fungibility of resources in their role-aligned accounts. In sum, study 3 found that participants randomly assigned to perceiving their work- and home-life roles as being more integrated indicated a greater likelihood of spending money from one role-aligned account with a surplus (e.g., a work budget) in the service of the

needs/wants of the other role that had a depleted role-aligned account (e.g., a coffee maker that corresponds to one's home-life role)). Study 4 was designed to give direct evidence of the process (i.e., psychological connectedness).

#### STUDY 4: ROLE INTEGRATION AND PSYCHOLOGICAL CONNECTEDNESS

So far, I have argued that people with integrated roles perceive higher psychological connectedness between the roles. While evidence of temporal connectedness across present and future have been shown before (Bartels and Urminsky 2011; Parfit 1984) this study directly measures psychological connectedness between two current roles.

##### *Method*

One hundred and ten people AMT participants were given the same descriptions of work-life and home-life roles used in previous studies (M-app section 1). On the same screen and similar to study 1 and 2, an attention-check question asked participants to indicate the two life roles that had been described to them.

As was done in the study 1 and 3, participants were then randomly assigned to one of the two conditions. The integrated-roles manipulation was similar but not identical to studies 2 (for manipulation detail, please refer to M-App section 4). Subsequently, on a different screen, participants were then asked to indicate their agreement to the following three statements (that

measured psychological connectedness between the work-and home-life roles: i) *the person I am in my home life is very similar to the person I am in my work life* ii) *the person I am in my home life is very connected to the person I am in my work life* and lastly iii) *the person I am in my home life has the same core psychological properties as the person I am in my work life*, all measures on a 9-point scale with 1 = strongly disagree and 9 = strongly agree. For reasons stated before, I predict that perceptions of connectedness across two life roles will be significantly influenced by the extent to which those roles are perceived to be integrated (vs. segmented).

### *Results and Discussion*

Seven participants who failed the attention check measures were dropped from the analysis. The three perceived psychological connectedness measures were found to be significantly correlated ( $\alpha > .89$ ) and hence combined to form a composite psychological connectedness measure. A one-way ANOVA using the composite psychological measure as the variable of interest revealed that participants with integrated (vs. segmented) roles perceived significantly higher psychological connectedness ( $M_{\text{integrated}} = 6.98, SD = 1.46$  vs.  $M_{\text{segmented}} = 5.67, SD = 1.75; F(1, 102) = 17.10, p < .001$ ).

## *GENERAL DISCUSSION*

Prior research on mental accounting has primarily looked at mental accounts as self-

control devices while typically ignoring the person making the mental accounts and tracking expenses: the accountant. In contrast, the present research demonstrates the consequences of the accountant's degree of role integration on the mental accounting process. Specifically, greater role integration increases the fungibility of funds between mental accounts corresponding with those roles, making people more likely to spend money from a mental account corresponding with one role to service the needs/wants of the other role. I argue that this effect occurs because of psychological connectedness between the roles. The greater the psychological connectedness spillover between one's life roles (e.g.), the more able one is to directly offset the costs incurred in one role with the benefits received in the other role.

In brief, by combining mental accounting and role-integration theories, this research brings to light an important aspect of the mental accounting process: the characteristics of the accountant. Prior research on mental accounting has highlighted the role of motivation in the mental accounting process. For example, people motivated to make a purchase have been shown to exploit ambiguities in assigning expenses to different mental accounts (Cheema and Soman 2001). Similarly, Heath and Soll (1996) argued that because budgets are inflexible, people may be especially likely to justify their expenses through various methods of malleably assigning those expenses to various mental accounts. Building on this, our results show that role integration is an additional means of circumventing the self-controls typically associated with role-aligned mental accounts. This research also extends boundary theory to encompass events with monetary qualities in the context of consumer behavior.

This research is also one of the first to look at how the structure of the self-concept, as opposed to its content, affects consumer behavior. In doing so, I have drawn upon work in psychology on psychological connectedness (Bartels and Urminsky 2011; Parfit 1984), to

contend that higher role integration results in the blurring of role transitions and greater affective continuity across roles, which consequently induce greater perceived psychological connectedness between those roles.

Given that this research is the first to examine the intersection the identity/role and mental accounting literatures, the opportunities for future research are abundant. First, while I have examined role integration as an individual difference variable, it is possible that certain roles are more likely to be integrated than others (e.g., spouse and parent). Future research could therefore examine whether certain role-aligned accounts have greater fungibility across each other. Moreover, It would therefore be interesting to examine role integration in the context of risk taking. Spending money from a mental account corresponding with one role to service the needs/wants of the other role can be viewed as a risky decision. Given my psychological connectedness account, perhaps greater role integration results in more risky decisions in role-aligned domains, since the costs can be spread out over multiple roles.

My findings have implications for managerial practice. While it may appear on the surface that there is little that can be done in regards to consumers' tendencies to integrate or segment their life roles, this is not the case. Here I offer three suggestions for the manager concerned with the impact of role integration on sales of her product or service. First, integrated-role consumers are an identifiable and targetable consumer segment. For instance, consumers that telecommute for work or use onsite daycare services are likely to have a higher degree of integration between their work-life and home-life roles. These individuals will tend to be less constrained in their spending than more segmented-role people, as shown. Alternatively, the firm can attempt to influence consumers' transient role-integration perceptions via the messages contained in their advertising, direct marketing, or personal selling channels. Lastly, the firm can



position and frame its product or service as being one that benefits multiple roles. While products with many benefits tend to be preferred in general, those that additionally benefit multiple roles will be seen as more appealing to those with both integrated and segmented roles. In other words, touting the many work-life benefits of a given product or service is worthwhile, but there may be an additional “bump” from touting how the product benefits the customer’s work- and home-life. For example, positioning a casual shirt (typically associated with home-life) as a “casual Friday” office wear option should increase the likelihood of people with segmented work-life and home-life roles purchasing it.

Perhaps the most noteworthy potential limitation of this research relates to the fact that the effect of role integration was primarily examined in the context of work-life and home-life roles. This was done to take advantage of the ubiquity of these roles: the first-person studies (1-3) could not be carried out if the participants did not themselves possess the roles described in the studies. Future work might examine the effect using other roles that are aligned to mental accounts in first-person contexts. For instance, one may also examine sub-roles within the home roles (e.g., spouse vs. parent role). Also, it would be worthwhile to identify real-world factors that influence the extent to which consumers integrate various roles. For instance, role integration has primarily been used to explain the effectiveness of organizational policies such as on-site day care facilities on employee satisfaction, commitment, and productivity (Hall and Richter 1988; Kossek and Ozeki 1999; Rothbard, Phillips, and Dumas 2005). In these cases, the general proposition has been that organizational policies should match the consumers’ chronic role-integration tendencies. However, as I have shown, exogenous factors can also influence consumers’ transient (and, perhaps, chronic) role-integration tendencies. Knowing a consumer’s work situation, for example, might inform awareness his tendency to integrate work-life and

home-life roles and, thus, the extent to which he will consider funds budgeted for those roles as being fungible.

In sum, this research has examined the intersection of two previously disparate theoretical domains. While the findings provide insight for both domains, our results also open many questions, and I encourage future research that examines them.

# **CHAPTER 3**

## **THE INFLUENCE OF INCIDENTAL TOKENISM ON PRIVATE EVALUATIONS OF STEREOTYPE-TYPIFYING PRODUCTS**

### **Introduction**

Three decades ago, Rosabeth Moss Kanter examined the experiences of underrepresented women in organizations (Kanter, 1977). She argued that women who comprise less than 15% of their work group tend to be seen less as “individuals” and more as “tokens.” Kanter’s theory of tokenism suggests that in particular contexts, token group members face negative experiences such as perceived increased visibility and social isolation. While the effect of tokenism on the performance and motivation of a token group member (hereafter, simply “token”) has been thoroughly studied in organizational domains (see also King et al., 2010), its effect on preference-related behaviors in more day-to-day contexts has been far less scrutinized.

People regularly find themselves part of incidental groups often formed around common interests or immediate purposes, such as people waiting in a queue to buy the latest tech product or commuters riding public transportation. In contrast to purposefully formed groups typical in organizational settings, the presence of a token in incidental groups cannot be readily attributed to intentional planning in the service of higher-level symbolic gestures or social pressures (e.g., organizational policies to encourage or showcase diversity). Simply put, one is unlikely to infer that a token within an incidental group (e.g., one of many on a subway car) has been intentionally placed there because he or she is a member of a particular social category. Yet, this does *not* preclude individuals in such circumstances from perceiving themselves to be a token. In fact, even when there is no apparent exogenous reason for their inclusion in a given group,

individuals spontaneously recognize their token status on both subtle (e.g., school affiliation; Saenz, 1994) and salient (e.g., gender; Lord and Saenz, 1985) identity dimensions. These insights into individuals' perceptions of being a token suggest that the consequences of tokenism may extend far beyond formal organizational domains and performance-related variables.

The current work focuses on the largely unexamined consequences of being an incidental, token member of a group on private evaluations (vs. public behavior) in subjective, preference-based (vs. objective, performance-based) domains. Combining research on the perception and consequences of being a token group member (Kanter, 1977; Lord and Saenz, 1985; Saenz, 1994), I propose that token members of incidental groups perceive the negative stereotypes chronically associated with the tokenized social identity to be salient. Because one's own actual or superficial correspondence with negative stereotypes can engender negative affect (Fiske, 2014), I suggest that token members will evaluate products that typify negative stereotypes of their tokenized identity less favorably than non-tokens, as they attempt to distance themselves from those negative stereotypes.

## *THEORETICAL DEVELOPMENT*

### *Formal and Incidental Tokenism*

In her seminal research, Kanter (1977) examined the experiences of women in predominantly male work groups, where the proportion of females in the overall group was less than 15%. She hypothesized that in such situations both men and women see the female group members less as individuals and more as tokens representing their gender within the larger

group. Kanter (1977) defined tokens not simply group members who differ from most other members along *any* dimension but, instead, as group members who differ from most other member on an ascribed characteristic or social identity (e.g., sex, race, religion, ethnic group, age) that carries with it a highly salient set of assumptions about culture, status, and behavior. Because tokens make up less than 15% of the total group, per Kanter's definition, they often feel they are in the position of representing their ascribed category to the group, whether they choose to or not (Kanter 1977). In formal organizational contexts such as work places, the responsibility of representing one's social category is often explicit and the apparent (if not actual) reason for the token's inclusion in the larger group (e.g., in the service of affirmative action policies). This unique position motivates tokenized individuals to display a variety of behaviors. While some tokens would actively behave in a manner contradictory to the negative stereotypes, many find it easier to accept and embody the stereotypes (Kanter 1977). Thus, Kanter established that being a token within a given group could impact overt behaviors in formal organizational settings.

In the time since Kanter's original findings, tokenism has primarily been studied in formal organizational settings where token group are included in the service of symbolic gestures and deliberate planning at an organizational level. Moreover, almost all of those studies examined tokenism on the basis of gender in occupational or educational contexts that were historically considered nontraditional for one of the genders. For example, research documented tokenism's impact on women managers (Fairhurst and Snavely, 1983), physicians (Lorber, 1984), law students (Spangler, Gordon, and Pipkin, 1978), lawyers (Cook, 1978), group leaders (Crocker and McGraw, 1984), police officers (Martin, 1982; Ott, 1989), coal miners (Hammond and Mahoney, 1983), and corrections officers (Jurik, 1985; Zimmer, 1986, 1988). For men, research documented the impact of tokenism was examined on nurses (Floge and Merrill, 1986;

Fottler, 1976) and social workers (Kadushin, 1976). A general takeaway from these studies is that—from the token’s perspective—being included in an occupation that is ostensibly gender-atypical increases the likelihood of attributing one’s inclusion to symbolic gesturing or deliberate planning.

Intuition might suggest that individuals perceive themselves as tokens *only* when: (i) their particular social category (on some dimension such as gender or race) is numerically under-represented, *and* (ii) that under-representation is thought to be intentional, *and* (iii) the individual interacts with and is differentially treated by the other group members (Yoder, 1991). However, this, however, is simply not the case. People are very sensitive and responsive to their immediate social context, regardless of how it came to be (Billig and Tajfel, 1973; Locksley, Ortiz, and Hepburn, 1980). Consequently, individuals often recognize themselves as token group members even in situations where their group’s underrepresentation appears unintentional (e.g., participating in a scientific experiment ostensibly unrelated to social identity; Saenz, 1994) and in which they neither expect nor receive differential treatment from the other group members (Lord and Saenz, 1985). These findings collectively suggest that merely being in a clear numerical minority is sufficient for individuals to spontaneously recognize their token status within the larger group, and for this realization to impact their behavior. Hereafter, I refer to this phenomenon as *incidental tokenism*.

### *The Impact of Incidental Tokenism on Private Subjective Evaluations*

Since researchers primarily examine tokenism in the context of formal organizations (e.g., companies) and institutions (e.g., schools), it is unsurprising that they have focused on

objective performance outcomes. The general finding is that being a token negatively impacts objective performance, because one's token status: (i) is distracting (Lord and Saenz, 1985; Saenz, 1994), (ii) results in negative treatment from nontoken group members (Yoder, 1991), and (iii) makes salient the negative stereotypes and stereotypical traits associated with the tokenized identity (Cohen and Swim, 1995; Kanter, 1977; Swan and Wyer, 1997). However, the relative impact of these consequences on performance depends on the nature of the context being examined (Saenz, 1994). For instance, diminished performance cannot be attributed to negative treatment from nontoken group members if no such negative treatment occurs; thus, it must be attributed to some other consequence of being a token (Lord and Saenz, 1985). I return to this point in my discussion of alternative accounts for our findings.

Though objective performance is both theoretically and substantively important in formal organizational contexts, it tends to be a far less relevant in other settings. Within the informal, transient group contexts examined in the current research, more subjective variables such as personal preferences and evaluations tend to be more pertinent. To the best of my knowledge, the only research directly linking incidental tokenism with individual evaluations and preferences is that conducted by Wooten (1995), who found that ethnic token members in transient groups avoid publicly engaging in behaviors associated with their ethnicity. For example, when asked to choose music for a social function in which the majority of the people would be white, token black participants tended to choose music that was race-incongruent (e.g., they chose rock or pop over rap or rhythm and blues). It is critical to note that participants in Wooten's studies knew their choices would be observable by nontoken group members and, in some cases would directly impact the nontokens as well. Consequently, it is impossible to know whether these participants' responses were driven by personal evaluations of the available options or concerns

regarding what their choices would signal to other group members. Favoring the latter interpretation, Wooten attributing participants' responses to increased self-consciousness—a result of the tokens' perceived distinctiveness from others in the group—and consequent self-presentation remedies.

In contrast, the current research endeavors to determine if incidental tokenism impacts individuals' private evaluations, which are unobservable by other group members, and thus less easily influenced by signaling concerns. Building on research into formal tokenism (Cohen and Swim, 1995; Kanter, 1977; Swan and Wyer, 1997), I propose that being a token member in an incidental group activates negative stereotypes associated with the tokenized identity. Past research reveals that when negative stereotypes are salient, one is likely to evaluate his or her behavior in relation to those stereotypes and, often, behave in a manner that is inconsistent with those stereotypes. While stereotype-incongruent behavior is sometimes motivated by the desire to avoid publicly reinforcing those stereotypes (Murphy, Steele, and Gross, 2007; Steele and Aronson, 1995), it also occurs because one's own actual or superficial correspondence with negative stereotypes can engender negative affect (Fiske, 2014). Thus, to avoid such negative feelings, incidental tokens should engage in stereotype-incongruent behavior.

A fundamental argument in my framework is that stereotype-incongruent behavior can include shifts in private evaluations. Because stereotype-behavior monitoring is an internal process (i.e., not dependent on the beliefs or actions of others), I predict that incidental tokens will report less favorable private evaluations of products that typify the negative stereotypes associated with their tokenized identity to avoid conforming to those negative stereotypes and the negative feelings that would arise from doing so. This internal process should occur even when the token knows they are anonymous and that their responses and identity will remain



confidential and not be shared with the larger group (i.e., when their evaluations are private).

Importantly, my predictions suggest that incidental tokenism produces a pattern of *private* evaluations that is more nuanced than the pattern of *public* evaluations found by Wooten (1995). Rather than influencing evaluations of all identity-linked products and behaviors, I predict that incidental tokenism will only negatively impact individuals' private evaluations of products that typify negative-stereotypes. Private evaluations of products linked to the tokenized identity, but which do *not* typify the negative stereotypes associated with that identity, should remain relatively unaffected.

### *Overview of Studies*

Five studies test my predictions. Study 1, using age to establish a tokenized identity, demonstrates the predicted difference in evaluations of stereotype-typifying products between token and nontoken group members. Study 2 replicates this effect using the female gender as the tokenized identity. Study 3 finds that the dissociative effect does not occur for all products linked to the tokenized identity but, rather, is restricted only to products typifying the negative stereotypes of the tokenized identity. Study 3 also extends these findings beyond evaluations to the domain of choice. Studies 4 and 5 provide evidence that negative-stereotype activation underlies the influence of incidental tokenism on evaluations of stereotype-typifying products. Study 4 finds a similar dissociative effect emerges when negative stereotypes are activated directly and study 5 finds that the effect of tokenism is attenuated when tokens are able to bolster self-worth via self-affirmation.

## Alternative Accounts of the Predicted Effect

I predict and demonstrate that being an incidental token will make salient the negative stereotypes associated with the tokenized identity, which in turn will result in the individual evaluating negative-stereotype-typifying products less favorably than they would if they were not an incidental token. However, one might contend that such a pattern of effects would be predicted by other accounts. Here, I address several of those accounts and explain how they cannot explain my predictions or results.

One might argue that the same prediction would be made on the basis of mere distinctiveness (Stayman and Deshpande, 1989; Wooten, 1995), if individuals behave in a certain way to minimize their apparent difference from the other group members. Because one's private evaluations of products will not be revealed to other group members, however, they cannot be used to reduce how distinctive one is perceived to be from the others, changing them would serve little apparent purpose. Even if one assumed that individuals change their private evaluations simply to feel less distinct (i.e., despite such a change signaling nothing to the other group members), then such shifts in evaluations should apply to all identity-linked products, not only those typifying negative stereotypes.

One might also suggest that the predicted effects reflect individuals' attempts to conform to the other group members' evaluations. However, Wooten (1995) found little evidence of conformity even for public evaluations: tokens reduced perceived dissimilarities from, as opposed to increasing perceived similarities to, the nontoken group members. Second, the normative influence of others tends to be relatively weak for responses that will not be observed by those others (Bond, 2005). Third, although the informational (as opposed to normative)

influence of others can be impactful even for private responses (Bond, 2005), it is strongest when the responses of those others are revealed (which is not the case in the context or studies examined here). Moreover, the degree of informational influence in a given situation should not be a function of group composition. For example, a woman's inference about what men like is not influenced by whether she finds herself in a group with mostly men or with just a few men. Finally, a conformity account would also predict the effect to occur for all products linked to the tokenized identity, not only those typifying negative stereotypes.

One might also suggest that finding oneself to be an incidental token threatens the tokenized identity, and that this causes the predicted effect. Indeed, identity threats have been shown to lead individuals to dissociate from identity-linked products (White and Argo, 2009; White and Dahl, 2006). As is the case with the preceding alternative accounts, however, an identity threat account would also predict the effect to occur for all products linked to the tokenized identity, not only those typifying negative stereotypes. A corollary to the identity-threat account would suggest that being a token threatens the identity, which in turn reduces decision confidence or certainty. However, no evidence is found in the following studies that there is consistently greater variance in the attitudes of token (vs. nontoken) participants.

In sum, many related accounts might predict some effect of incidental tokenism on private evaluations, but they cannot explain the specific nuanced effect that I predict and find in the following studies.

### *STUDY 1: INCIDENTAL TOKENISM BASED ON AGE*

Study 1 examines how being an incidental token impacts private evaluations of

stereotype-typifying products. The social category used to manipulate token group membership was based on age. Age is a dimension on which many negative stereotypes are based. Of particular relevance to the current study, older people are consistently stereotyped as high on warmth but low on competence and often thought of as old-fashioned and boring (Cuddy and Fiske, 2002; Hummert et al., 1994; Kite, Deaux, and Miele, 1991). Per my theorizing, finding oneself a token “old” member of a group (e.g., the lone forty-plus person in a group of younger individuals) should make salient to the individual the negative stereotypes associated with being in that age group. As argued above, this should lead to less favorable private evaluations toward products typifying negative stereotypes of older individuals.

### *Method*

Fifty-five paid participants 40 years of age or older ( $M_{age} = 50$ ) were recruited through Amazon Mechanical Turk. Importantly, age was not mentioned in the recruitment materials. Participants below the age of forty were directed to a different unrelated study, unbeknownst to them or the other, older participants of our study. I chose the age range of “40 and above” since turning forty is widely considered to be an important milestone at which point the individual becomes “over the hill” (at least in the US, from which the participants were recruited). Whether or not a given 40+ year-old individual personally feels they are “over the hill,” they are most likely aware of the stereotypes associated with their age group and, thus, should respond as predicted to being a 40+ year-old token.

Participants were first welcomed and told they were part of an online group comprised of ten members that would evaluate some products. In fact, there was no such group, and all other

ostensible group members were simulated participants. Hence, participants unknowingly completed this survey individually and not as a member of an actual group. This design element (using ostensible as opposed to actual groups) reflects the focal abstract aspects of incidental transient groups; group members are aware of the group and its composition, but do not directly interact with each other. Additionally, the use of ostensible groups provides a very conservative test of my hypothesis as it eliminates any influence that might arise from being in the presence of others (e.g., nonverbal communication or the belief, true or not, that one's behavior can be observed by other members of the group).

All participants were explicitly told that their product evaluations would be completely anonymous and would not be shared with the other group members. Participants then indicated whether their age was “under 40” or “40 or above.” It was at this point that participants responding “under 40” were redirected to an unrelated study. Those responding “40 or above” proceeded to the next screen.

The subsequent screens reinforced the group aspect of the study in several ways. First, participants were shown an icon that was a silhouette of a business suit and told they would be represented by this icon throughout the study. They then selected their current profession from a small list that included an “other” option with an open-response box and chose their preferred color from a set of four colors. Finally, they entered a name they preferred to be identified with during this study and indicated their actual age. After entering this information, participants were then shown a brief loading screen, after which their ostensible group was revealed to them as a list of names and ages.

It was at this point that participants were randomly assigned to one of two conditions. In the *token* condition, the participant was the lone 40+ year-old member (all other group members

were ostensibly less than 40 years of age). In the *nontoken* condition, the participant and eight other group members were 40+ years old, while the remaining group member was less than 40 years of age. They were asked to try to remember these other group members as there might be questions about them later in the survey. On the subsequent screen, participants were (i) told that their group would be called “Group Classic” for the remainder of the study, (ii) reminded of the proportion of the group that was 40 years of age or older, and (iii) given the group’s ostensible answers to the questions asked earlier in the study (see appendix A for an example).

Next, participants were asked three get-to-know-you questions and were told that their answers and those of the other group members would be shown to everyone. This step was included only to reinforce the group nature of the study. The three questions were, “Do you ever use the app ‘kik’,” “Have you recently used any of the following acronyms in social communications” [ROTFL, TMI, TBH, SMH, LMAO, OOMF], and “Have you ever used the app ‘SKOUT’?” The participants’ answers to these questions were interspersed among those of the other ostensible participants on the subsequent screens.

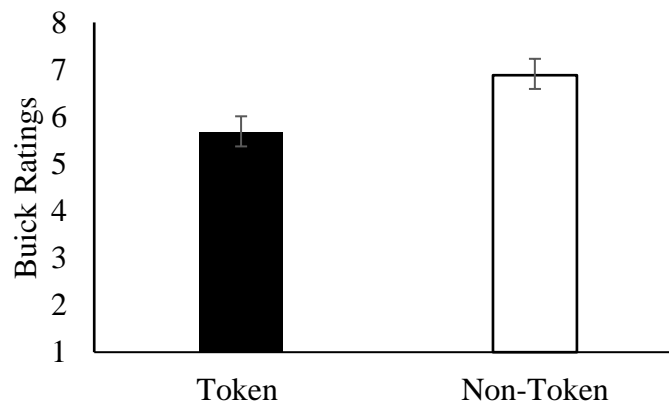
At this point, participants were told that the first phase of the survey was over and they would proceed to the next stage of the survey. On the next screen, participants were told that all the group members would be evaluating the *Buick Lucerne* (see appendix B for a screen capture of exactly what was displayed). After reading the information about the *Buick Lucerne*, participants in both conditions were asked to provide an overall rating of the *Buick Lucerne* on a 9-point scale ranging from 1 (unfavorable) to 9 (favorable). A pretest found that the *Buick Lucerne* is strongly associated with several of the chronically held negative stereotypes associated with older people; namely, “not fashionable,” “slow,” and “not exciting” (see appendix C for the details). However, this is not to suggest that the *Buick Lucerne* is an

undesirable car. On the contrary, *Buick Lucerne* has been rated as the favorite car of older people by businessinsider.com and other automobile blogs. Moreover, a separate pretest revealed that under conditions without any group context, 40+ year-old participants rated the *Buick* brand favorably (see appendix C for the details).

### *Results and Discussion*

I predicted that participants in the token condition would report less favorable private evaluations of the *Buick Lucerne*. Supporting this prediction, participants (all of whom were 40+ years old) evaluated the *Buick Lucerne* significantly less favorably when they believed themselves to be a token versus nontoken group member ( $M_{token} = 5.66$ ,  $SD = 1.63$  vs.  $M_{nontoken} = 6.88$ ,  $SD = 1.40$ ;  $F(1, 53) = 8.35$ ,  $p = .0056$ ).

*FIGURE 3.1: STUDY 1 EVALUATION OF A BUICK CAR*



These results are consistent with my theorizing that being an incidental 40+ year-old

token group member activates negative stereotypes associated with that age group (e.g., not cool, not exciting, and slow). Consequently, products typifying these stereotypes, like the *Buick Lucerne*, are viewed less favorably because liking such products would entail conforming to those negative stereotypes and the consequent negative and unpleasant affective responses. Next, study 2 generalizes these results by (i) using a different social category to manipulate tokenism—gender—and (ii) showing that the effect is not limited to contexts in which the token is the lone representative of their social category within the group.

### *STUDY 2: NON-SOLO FEMALE INCIDENTAL TOKENS*

Study 2 tests my theory in a context where the number of tokens in a group is more than one. In study 1, the token was the lone representative of the token's social category. Research has documented the negative effect of solo status (i.e., being the only member of its kind) on performance (Lord and Saenz, 1985; Sekaquaptewa and Thompson, 2002). However, a token need not be the lone representative of the tokenized identity in order to face negative experiences (Kanter, 1977). Accordingly, the effects of being a token in an incidental group should hold when the tokenized identity is represented by more than one person but, overall, remains less than 15% of total group population (i.e., Kanter's numerical definition of tokens). For this reason, study 2 was designed to test my predictions in a context where the participant was an incidental token, but not the lone representative of her social category.

#### *Method*



I restricted the study to female participants only and recruited 123 females from Amazon Mechanical Turk. However, gender was not mentioned in the recruitment materials and male participants were directed to an unrelated study, unbeknownst to them or the other, female participants.

This study utilized a 2 (group size: ten vs. twenty) x 2 (token condition: token vs. nontoken) between-subjects experimental design. Many aspects of study 2 were identical or similar to those in study 1. First, participants were told they were part of an online group. Again, this was not true and the other group members were simulated participants. Likewise, all participants were told that they would be evaluating products and that these evaluations would be totally anonymous and not shared with the other group members. Similar to study 1, when the group size was 10 (20), participants in the *token* condition were told that all other members of the group (except one) were of the opposite gender of the participant. Consequently, when the group size was 20, the participant was not the lone representative of her gender; there was one other female in the group. Conversely, when the group size was 10 (20), participants in the *nontoken* condition were told that all of members of the group except one (two) were of the same gender as the participant. This was not done explicitly, but rather by revealing the list of group members, as in study 1, and then presenting a summary of the characteristics of the group to the participant.

After viewing the group summary, participants were asked to answer a few get-to-know-you questions (e.g., “Have you watched the movie *The Godfather*?” or “Have you ever run a marathon?”). Afterwards, the participants’ responses to these questions were interspersed among those of the other ostensible group members on the subsequent screens. Participants were then told that the first phase of the survey was over and they would proceed to the produce evaluation phase.

The dependent variable of interest was participants' evaluations of the romance novel, *The (Im)perfect Girlfriend*. This novel was rated above average by goodreads.com (the world's largest website for book recommendations). A pretest revealed that (i) this novel was highly related to the female identity and (ii) strongly associated with negative stereotypes of females (see appendix D for the details).

While I used a single-item dependent variable for study 1 (as will be the case in study 5), I introduced additional measures in studies 2, 3, and 4 in order to examine the robustness of the results. Participants were shown the cover of the romance novel along with a brief synopsis (see appendix E) and were asked to provide not only an overall rating of the novel (1 = unfavorable, 9 = favorable) but also to indicate the extent to which they agreed (1 = disagree, 9 = agree) that the novel was *intellectually stimulating*, *emotionally stirring*, *logical*, *rational*, and *believable*. These six measures were strongly correlated for each novel ( $\alpha = .92$ ) and averaged into a single evaluation score for each respondent.

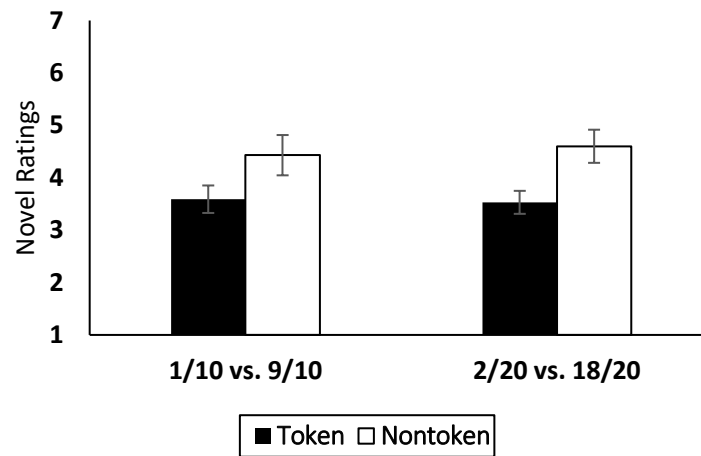
## *Results and Discussion*

A 2 (group size: ten vs. twenty) x 2 (token condition: token vs. nontoken) ANOVA using the composite novel-rating measure as the dependent variable revealed neither a main effect of group size ( $F(1, 119) = .02, p = .86$ ) nor a significant interaction between the group-size and token factors ( $F(1, 119) = .14, p = .70$ ). This indicates that evaluations did not significantly differ as a function of group size. Accordingly, I collapsed across the group-size conditions for the remaining analyses, but report the means for all conditions for completeness.

A one-way ANOVA revealed a significant effect of token condition, with token

participants evaluating the novel significantly less favorably than nontoken participants ( $M_{token} = 3.56$ ,  $SD = 1.44$  vs.  $M_{nontoken} = 4.50$ ,  $SD = 1.82$ ;  $F(1, 121) = 10.17$   $p = .002$ ). Importantly, as depicted in figure 1, planned contrasts revealed that the effect of token condition was significant in both group size conditions (10:  $M_{token} = 3.59$ ,  $SD = 1.53$  vs.  $M_{nontoken} = 4.43$ ,  $SD = 2.07$ ,  $F(1, 119) = 4.19$ ,  $p = .043$ ; 20:  $M_{token} = 3.53$ ,  $SD = 1.45$  vs.  $M_{nontoken} = 4.69$ ,  $SD = 1.37$ ;  $F(1, 119) = 5.92$ ,  $p = .016$ ), indicating that the effect generalizes beyond solo status contexts.

*FIGURE 3.2: STUDY 2 EVALUATION OF A NOVEL*



Consistent with Kanter's (1977) definition of a token (i.e., one's social identity representing less than 15% of the overall number of people in the group), our results demonstrate that the negative influence of incidental tokenism operates even when the token member is not the lone group member representing the tokenized identity. Having established that being an incidental token can lower private evaluations of stereotype-typifying products in anonymous contexts, the following studies focus on testing the underlying process.

### *STUDY 3: STEREOTYPE-TYPIFYING VS. NON-STEREOTYPE-TYPIFYING PRODUCTS*

My focus thus far has been on products that typify negative stereotypes of the individual's tokenized identity. However, products that do not typify negative stereotypes can also be linked to one's identity. How would a token respond to such products? One might argue that since being a token activates negative stereotypes associated with the tokenized identity, the negativity would spill over to everything connected to the tokenized identity. My theory, however, posits that stereotype-typifying products are viewed less favorably by tokens because of the impending negative affective consequences of conforming to negative stereotypes. Hence, I predict the dissociative impact of being an incidental token will not generalize to all identity-linked products, but rather only those typifying negative stereotypes of the tokenized identity. Study 3 tests this prediction and does so using a dependent variable important to both academics and managers alike: choice.

#### *Method*

Two hundred seventy-three paid female participants were recruited through Amazon Mechanical Turk. Again, as in study 2, gender was not mentioned in the recruitment materials and male participants were directed to a different unrelated study, unbeknownst to them or the other, female participants.

The study utilized a 2 (token condition: token vs. nontoken) x 2 (product: stereotype-typifying vs. non-stereotype-typifying) mixed design. While participants were randomly assigned to either the token or nontoken condition—which was manipulated exactly as the lone

token condition in study 2—all participants evaluated both products (i.e., the product factor was a within-subjects factor).

The first dependent variable of interest was participants' evaluations of two novels, one of which typified negative stereotypes associated with the female identity (*Confessions of a Shopaholic*) and the other which did not, although it was linked to the female identity (*The Other Einstein*). A pretest found that both novels were strongly associated with the female identity, but only the former (*Confessions of a Shopaholic*) was found to typify negative stereotypes associated with the female identity (see appendix F for the details).

All participants evaluated *Confessions of a Shopaholic* first, then *The Other Einstein*. This was done to prevent the non-stereotype-typifying novel from generating some degree of self-affirmation prior to participants evaluating the stereotype-typifying novel (a process that moderates the effect, as will be demonstrated in study 5). The product evaluation measures were identical to those in study 2. Again, these six measures were found to be strongly correlated in all conditions and for both novels ( $\alpha_{\text{stereotype-typifying}} = .90$ ;  $\alpha_{\text{non-stereotype-typifying}} = .89$ ), and were averaged into a single evaluation score for each novel. After participants evaluated both novels, they were again shown the two novel covers and asked to indicate which they would prefer to read on a 1 (*Confessions of a Shopaholic*) to 9 (*The Other Einstein*) scale.

Finally, participants read, “Please imagine that you have a budget of \$15 to buy books. You are given a list of **six** books. Each of the books costs **\$5**. Please indicate which of the **three books out of these six** you would like to purchase.” Thereafter, participants were shown the covers of six novels (including the two they had previously evaluated) in a randomized order. A pretest had determined that, while all six novels were associated with the female identity, three of these strongly novels typified negative stereotypes associated with the

female identity—*The (Im)Perfect Girlfriend*; *Love, Lies and Louboutins*; and *Confessions of a Shopaholic*—and three did not—*West with the Night*; *The Other Einstein*; and *The Mother* (see appendix F for the details).

## *Results and Discussion*

A mixed-design ANOVA, using novel evaluation as the dependent variable, revealed the predicted two-way interaction ( $F(1, 270) = 3.90, p = .049$ ). Planned contrasts revealed the expected pattern of results. First, tokens evaluated the stereotype-typifying novel (*Confessions of a Shopaholic*) significantly less favorably than did nontokens ( $M_{token} = 3.90, SD = 1.73$  vs.  $M_{nontoken} = 4.59, SD = 1.66; F(1, 270) = 11.18, p < .001$ ). In contrast, being a token did not significantly influence participants' evaluations of the non-stereotype-typifying novel (*The Other Einstein*;  $M_{token} = 6.99, SD = 1.39$  vs.  $M_{nontoken} = 7.23, SD = 1.20; F(1, 270) = 2.25, p = .13$ ). Additionally, tokens indicated a significantly stronger preference to read the non-stereotype-typifying novel (*The Other Einstein*) than did nontokens ( $M_{token} = 7.71, SD = 1.97$  vs.  $M_{nontoken} = 7.11, SD = 2.66; F(1, 270) = 4.22, p = .041$ ). Lastly, tokens selected significantly fewer stereotype-typifying novels (from the set of six available novels) than nontokens ( $M_{token} = .83$  vs.  $M_{nontoken} = 1.43; \text{Mann-Whitney } U = 7686.5, p < .02$ ).

Thus, study 3 extends the previous findings by looking at how my proposed theory might affect individuals' private evaluations and choices. The results show that, compared to nontokens, tokens (i) had lower evaluations of, (ii) showed lower preferences for reading, and (iii) were less likely to choose novels typifying negative stereotypes associated with their tokenized identity. In contrast, being a token did not influence participants' responses to identity-

linked novels that did not typify the negative stereotypes of the tokenized identity. Taken together, the pattern of results provides further supportive evidence of my theory.

#### *STUDY 4: IDENTITY SALIENCE VS. NEGATIVE STEREOTYPES*

Study 4 had three goals. First, I sought to provide evidence that negative stereotype activation underlies the effect documented in the preceding studies. Second, I wanted to examine the possibility that the documented effect is the mere artifact of identity salience, since research has shown that (i) individuals are more aware of their own social identity when they are in a numerical minority (Cota and Dion, 1986; McGuire et al., 1978) and (ii) salient identities can influence performance on tasks (Shih, Pittinsky, and Ambady, 1999). Third, study 4, like study 3, further examined whether the effect I have observed applies solely to products that typify the negative stereotypes of one's tokenized identity.

#### *Method*

Three hundred twenty-seven paid participants were recruited through Amazon Mechanical Turk. Participation was again restricted to females for all conditions. Thus, as in studies 2 and 3, gender was not mentioned in the recruitment materials but male participants were directed to a different unrelated study, unbeknownst to them or the other, female participants.

The study utilized a 3 (group: gender-prime vs. token vs. stereotype-activation) x 2 (product: stereotype-typifying vs. non-identity-linked) between-subjects design. The *token*

condition manipulation was identical to that in the 10-member group conditions in studies 2 and 3. In the *gender-prime* condition, participants were first told that the study was related to an explanatory-style task. Explanatory style was defined as the explanation process and types of evidence that people give when explaining something. They were then asked to briefly write about two ostensibly randomly selected topics: (i) how their gender influenced their decision making and (ii) how their gender influenced their interpersonal relationships (Puntoni, Sweldens, and Tavassoli, 2011). Those in the *stereotype-activation* condition were also told about the explanatory-style task and then asked to briefly write about (i) some of the negative stereotypes associated with being female and (ii) what they believed to be the most popular negatives stereotypes of females. Once they were done writing, participants in the gender-prime and stereotype-activation conditions were told they had completed the first phase of the study and that they would then begin the next phase, in which they would evaluate a novel.

In the *stereotype-typifying* product condition participants evaluated *The (Im)perfect Girlfriend*. In the *non-identity-linked* product conditions, participants rated another novel, *The Corfu Trilogy*, which did not correspond with either negative female-gender stereotypes or, more broadly, the female-gender identity. A pretest revealed no significant association between this novel and the female identity (see appendix G for the details). All participants were shown a novel cover and a brief synopsis before they evaluated the novel using the same measures used in studies 2 and 3. These six measures were again found to be strongly correlated for both novels ( $\alpha_{\text{The (Im)perfect Girlfriend}} = .88$ ;  $\alpha_{\text{The Corfu Trilogy}} = .90$ ) and were averaged into a single evaluation score.

## *Results and Discussion*



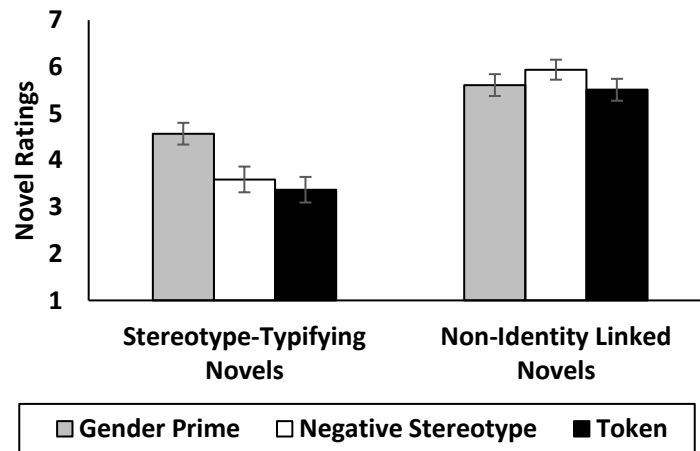
A 3 (group: gender-prime vs. token vs. stereotype-activation) x 2 (product: stereotype-typifying vs. non-identity-linked) ANOVA revealed a significant main effect of product ( $F(1, 320) = 85.69, p < .001$ ), a marginal main effect of group ( $F(2, 320) = 2.86, p = .058$ ), and a significant interaction of group with product ( $F(2, 320) = 4.61, p = .011$ ). Most critical for testing my proposed theoretical process, planned contrasts revealed that participants in the token condition rated the stereotype-typifying novel significantly less favorably than those in the gender-prime condition ( $M_{token} = 3.37, SD = 1.87$  vs.  $M_{gender-prime} = 4.57, SD = 1.86; F(1, 320) = 11.68, p < .001$ ). Likewise, participants in the stereotype-activation condition rated the stereotype-typifying novel significantly less favorably than those in the gender-prime condition ( $M_{stereotype-activation} = 3.59, SD = 2.08$  vs.  $M_{gender-prime} = 4.57, SD = 1.86; F(1, 320) = 8.88, p = .0031$ ). There was no significant difference between the token condition and stereotype-activation condition ( $F(1, 320) = .35, p = .55$ ). Thus, those in the token condition behaved in a manner consistent with those who had actively and explicitly considered negative stereotypes associated with the female identity, indirectly supporting my proposed theoretical process (Spencer, Zanna, and Fong, 2005). Moreover, both of these conditions resulted in significantly lower ratings of the stereotype-typifying novel than the gender-prime condition, effectively ruling out mere identity salience as the driver of the observed effect.

Lastly, planned contrast revealed no differences in the evaluation ratings for the non-identity-linked novel across conditions (all  $p > .33$ ), as our theory predicts. Figure 2 displays the means for all conditions.

The results of study 4 provide indirect evidence of my proposed theoretical account. Merely making one's identity salient did not lead to behaviors like those demonstrated by tokens. However, priming negative stereotypes associated with the female identity did. These results

support my assertion that being a token activates negative stereotypes and, to avoid the negative affective consequences of conforming to negative stereotypes, people lower their private evaluations of stereotype-typifying products. Finally, the fact that there was no significant difference across the conditions for the non-identity-linked novel provides converging evidence that the prior studies' findings are not an artifact of general negative affect arising due to being a token, which should depress attitudes toward all evaluated stimuli.

*FIGURE 3.3: STUDY 4 EVALUATION OF NOVELS*



#### *STUDY 5: SELF-AFFIRMATION*

My theory posits that tokens evaluate stereotype-typifying products less favorably to avoid reinforcing those negative stereotypes, as doing so will result in negative feelings about and toward one's self. If true, then bolstering one's self-worth via some alternative means should attenuate the tendency to avoid products associated with some negative aspect of one's identity (Steele, 1988; White and Argo, 2009; White and Lehman, 2005). Self-affirmation theory (Steele,

1988) proposes that when people are faced with threats to their self, they often respond in a defensive nature, and that affirming the self reduces this defensiveness. My results suggest that the way people defend the self when tokenism activates negative stereotypes is to distance themselves from identity-linked products that embody such negative stereotypes. Affirming the self should reduce this defensiveness, and thus the negative effect of tokenism on stereotype-typifying product attitudes. In other words, tokens who have been self-affirmed will have bolstered their positive feelings about the self and, thus, should not feel the need to avoid stereotype-typifying products (i.e., they will be able to counter the negative affective consequences of conforming to negative stereotypes with their increased positive self-view).

### *Method*

505 paid participants 40 years of age or older ( $M_{age} = 50.73$ ) were recruited through Amazon Mechanical Turk exactly as in study 1 in two waves (N = 200 in wave 1; N = 305 in wave 2). Participants below the age of forty were directed to an unrelated study, unbeknownst to them or the other, older participants. The study utilized a 2 (token condition: token vs. nontoken) x 2 (self-affirmation: yes vs. no) between-subjects design. Except for the addition of the affirmation (no-affirmation) conditions, all other aspects of study 5 were identical to those in study 1.

Once the token/nontoken manipulation was complete, participants in the *self-affirmation* condition were self-affirmed using Sherman, Nelson, and Steele's (2000, study 2) method. Specifically, participants were shown the following list of nine characteristics and values: *honesty, loyalty, civility, sense of humor, relations with friends/family, physical attractiveness,*

*romantic values, patriotism towards country, and dependable*. They were then asked to rank them in order of their importance to them as a person. Next, participants were shown the value/characteristic they had ranked highest and were asked to (i) write a few lines about why that particular value/characteristic was personally important to them and (ii) give an example about an incident in their life where they had demonstrated the same value/characteristic. While I chose this particular task to allow participants to self-affirm, Cohen, Aronson, and Steele (2000) have suggested that participants may use any self-reflective writing opportunity to do the same. Thus, participants in the *no-self-affirmation* condition were asked to indicate the color of the Coca-Cola and the McDonald's logos—a task that does not pertain to the self.

At this point, participants were told that the first phase of the survey was over and they would proceed to the next stage of the survey. As in study 1, participants were then told that they would be evaluating the *Buick Lucerne*. Participants in all four conditions were then given the same information about the *Buick Lucerne* as in study 1 (see appendix B) and asked to rate the *Buick Lucerne* on the same 9-point scale ranging from 1 (unfavorable) to 9 (favorable).

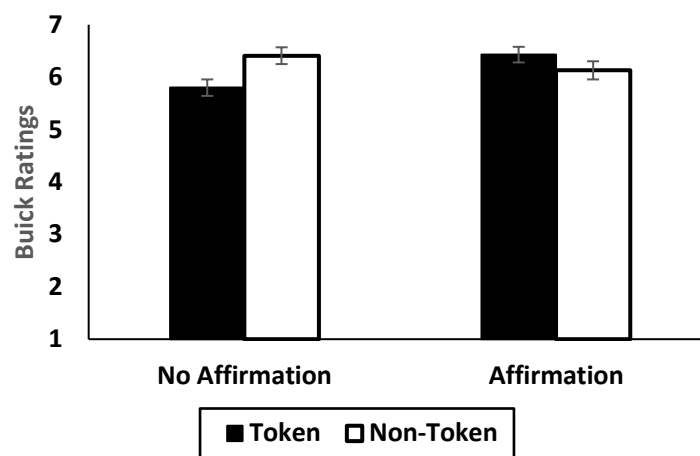
### *Results and Discussion*

An ANOVA revealed no main effect for either the token ( $F(1, 501) = .94, p = .33$ ) or self-affirmation ( $F(1, 501) = 1.25, p = .26$ ) factors. However, as predicted, there was a significant interaction of token condition with self-affirmation ( $F(1, 501) = 7.94, p = .005$ ). This significant interaction was not qualified by a significant three-way interaction with the two waves of data collection (i.e., the pattern was not significantly different in the two batches of data;  $F(1, 497) = 1.02, p > .31$ ). Hence, I collapse across the batches of data for the remaining

analyses.

Planned comparisons revealed that token participants in the *no-self-affirmation* condition evaluated the *Buick Lucerne* significantly less positively than did nontoken participants ( $M_{token} = 5.80$ ,  $SD = 1.82$  vs.  $M_{nontoken} = 6.41$ ,  $SD = 1.70$ ;  $F(1, 501) = 7.53$ ,  $p = .006$ ). In contrast, there was not a significant difference between the token and nontoken participants' evaluations in the *self-affirmation* condition ( $M_{token} = 6.43$ ,  $SD = 1.73$  vs.  $M_{nontoken} = 6.13$ ;  $SD = 1.92$ ;  $F(1, 501) = 1.45$ ,  $p = .22$ ).

FIGURE 3.4: STUDY 5 EVALUATION OF A BUICK CAR



Replicating study 1, token 40+ year-old participants evaluated the *Buick Lucerne* significantly less favorably than did nontokens when they were *not* self-affirmed. However, as predicted, token participants who were self-affirmed, and presumably had bolstered their self-worth, did not feel the need to distance themselves from the stereotype-typifying *Buick Lucerne*. Thus, incidental tokenism did not influence evaluations of a stereotype-typifying product when participants were self-affirmed. These findings support the proposed theoretical account. If one's

own actual or superficial correspondence with negative stereotypes can engender negative affect then feeling good about oneself should mitigate the fear of negative affect anticipated from acting in such a manner.

## GENERAL DISCUSSION

The methods by which groups of individuals influence their members have been a topic of great interest across academic fields. For instance, research has shown that informal groups can influence decisions by inducing group variety seeking (Ariely and Levav, 2000) or creating positive affect (Zhou and Soman, 2003). While people are generally most influenced by others that they identify with (Berger and Heath, 2008; Escalas and Bettman, 2003, 2005; White and Dahl, 2006), many groups they find themselves a part of are transient in nature and comprised largely of strangers. The present research adds to this stream of literature by demonstrating that individuals can be unexpectedly influenced by the composition of such groups. Specifically, my results show that tokens in incidental groups report significantly less positive private evaluations of negative-stereotype-typifying products.

It is worth noting that stereotype-typifying products are not inherently “bad” products. Stimuli in the current studies included novels and a car brand that independent sources and pretests indicated to be quite appealing to their respective target markets, which were the same populations from which participants were sampled. Despite their appeal, however, these products also typified certain negative stereotypes associated with those target markets—a quality that can be particularly relevant to people finding themselves to be incidental token group members.

I argue that the dissociative effect observed in evaluations made by token individuals

occurs because being a token activates negative stereotypes associated with the tokenized identity. Consistent with this reasoning, study 4 demonstrated that directly activating negative stereotypes resulted in similar dissociative effects (and only for stereotype-typifying products). Moreover, when given the opportunity to enhance positive feelings about themselves via self-affirmation (study 5), token individuals did not report lower private evaluations of stereotype-typifying products than nontokens. This deactivation of the urge to protect and maintain self-worth by other means is consistent with existing literature on stereotypes (Steele, 1998; Steele and Liu, 1983; Tesser, 2000; White and Argo, 2009).

#### *Theoretical and practical implications*

This research informs past findings on both identity-based consumption and the influence of groups on individual decision-making in various ways. First, my results demonstrate that even incidental (vs. formal) tokenism can influence behavior. Specifically, tokens in incidental groups demonstrate behaviors similar to, but more nuanced than, those documented in the literature on explicit social threats (White and Argo, 2009; White and Dahl, 2006): specifically, participants in the current studies exhibited less favorable responses to products linked to negative, identity-related stereotypes. Second, research on social distinctiveness and group composition (Stayman and Deshpande, 1989; Wooten, 1995) shows that being in a minority influences publicly stated preferences, which may be attributed to impression management or consensus building. The current results demonstrate that group composition can have an impact even on individual's private evaluations.

#### *Limitations and direction for future research*

Perhaps the most noteworthy limitation of my research relates to the fact that none of the “groups” in the studies actually existed (although there is no indication that participants were aware of this). While this bolsters my confidence in the documented effect, future work might examine more natural circumstances or construct actual groups in a laboratory, to examine the robustness of our results. I would predict that the observed effect would become even greater in such cases, since social influence should be at its strongest in the physical presence of others.

Another limitation is that I only examined incidental tokenism based on age and gender. This is consistent with most research on tokenism and minority groups, which tends to examine only a single identity (most often, gender). Nonetheless, future researchers might develop specific hypotheses regarding social identities which are and are not particularly sensitive to incidental tokenism.

Related to this point, the frequency with which people recognize themselves as being a token within real-world incidental groups may vary. As discussed in my theorizing, people are very sensitive and responsive to their immediate social context, regardless of how it came to be (Billig and Tajfel, 1973; Locksley, Ortiz, and Hepburn, 1980). Moreover, it has been found that the mere numerical distinctiveness of subgroups is spontaneously recognized by group members, and can impact performance in both formal and informal contexts (Inzlicht and Ben-Zeev, 2000; Randel, 2002). However, any factor that influences one’s attention to the social context (be it something about the context or something specific to the individual) could conceivably moderate the relationship between the composition of an incidental group and one’s perception of being a token in that group. While the current research cannot shed light on the prevalence of incidental tokenism, it does have clear implications for the consequences that arise when people perceive



themselves to be tokens in an incidental group.

The findings of this research suggest intriguing directions for future study. First, will ones' independent versus interdependent tendencies moderate the influence of tokenism on private evaluations? If so, would that moderation be due to a decreased awareness of group composition and, hence, the perception of being a token? Or, alternatively, might it be the case that independent individuals simply care less about being a token, no matter how salient their tokenism might be?

Second, it has been demonstrated that in-group members often shift their in-group stereotypes in response to different inter-group comparison standards (Hopkins, Regan, and Abell, 1997). While my investigation focused primarily on negative stereotypes, one might wonder if being a token might activate positive stereotypes when the token is a member of a social category which is higher status than that of the numerically dominant social category. If so, then I would expect the results observed in my studies to be either muted or reversed.

Another interesting avenue might be to examine contexts where there is more than one outgroup present (e.g., a group having members of more than two different ethnicities). Will the lack of a clear contrast among the social identities inhibit activation of negative stereotypes (perhaps by blurring the perception of being a token)? In other words, will the lack of a clear contrast (it is no longer them vs. us if who "they" are is not clear) shift people from a perceived token to nontoken position?

### *Conclusions*

In closing, this research reveals that perceived tokenism in transient, incidental groups can impact private evaluations and preferences. In doing so, it demonstrates that the consequences of tokenism generalize to contexts other than formal organizations and behaviors other than performance. I hope that my research inspires future researchers to examine broader questions pertaining to the influence of tokenism on individuals and their consumption related behaviors.

## METHODOLOGICAL APPENDIX

### CHAPTER 2

#### *Section 1: Work-life, Home-life Role Descriptions*

“Among the various roles we play in our day-to-day lives, our work-life and home-life roles are probably the ones the majority of people use most frequently. Our work-life roles are the roles we play (i.e., the person we are) when we are at work or are engaged in work-related activities regardless of location. This is the role we play as an employee, supervisor, colleague, and so on. Our home-life roles are the roles we play (i.e., the person we are) when we are either at home or engaged in home-related activities, regardless of location. This is the role we play as a son, daughter, brother, sister, niece, nephew, friend and so on.”

#### *Section 2: Integrated and Segmented Work-life, Home-life Roles Descriptions*

[integrated-roles description] “For some people, the roles we play are related and influence each other. In fact, they often overlap in time and location. For instance, when we are at work, we are still a son, daughter, brother, sister, niece, nephew, friend, and so on. And when we are home or around our family and friends, we are still a person who is an employee, supervisor, or co-worker. Both roles are important aspects of who we are as people and, therefore, are intertwined and influence our decisions and behavior across many contexts.”

[segmented-roles description] “For some people, the roles we play are clearly separate and distinct. In fact, they rarely overlap in time and location. For instance, when we are at work, we don't think of our role of being a son, daughter, brother, sister, niece, nephew, friend, and so on. And when we are home or around our family and friends, we do not think of ourselves as an employee, supervisor, or co-worker. Both roles are important aspects of who we are as people but, regardless, but they are separate, independent, and influence our decisions only in the relevant contexts.”

[disclaimer] “People with integrated and segmented work-life and home-life roles live equally happy, successful, and long lives. And it is no better to be a person with segmented than integrated roles, or vice versa.”

### *Section 3: Transient Work-life, Home-life Role-integration Manipulation Instructions*

[integrated-roles manipulation] “Now, please describe some ways in which your work-life and home-life intersect or are integrated. For instance, what examples do you have that "who you are" at home, around family and friends influences "who you are" at work, and vice versa? In what ways are your values and goals at home the same as your values and goals at work? In what ways do you allow your home life to affect your work life, and vice versa? Feel free to be as general or specific as you like, but please be as detailed as possible.”

[segmented-roles manipulation] “Now, please describe some ways in which your work-life and home-life are clearly separate or are distinct. For instance, what examples do you have that "who you are" at home, around family and friends does not influence "who you are" at work,

and vice versa? In what ways are your values and goals at home different from your values and goals at work? In what ways do you keep your home life from affecting your work life, and vice versa? Feel free to be as general or specific as you like, but please be as detailed as possible.”

#### *Section 4: Integrated and Segmented Work-life, Home-life Roles Descriptions*

[integrated-roles description] A person with segmented work-life and home-life roles will strive hard to keep these roles integrated and usually focus on both the roles at the same time (i.e., irrespective of the role he or she is currently playing). For example, such a person would answer home calls while at work or discuss work at home with family members and vice versa). Generally speaking, a person with integrated roles sees the boundaries between his or her home-life and work-life roles as flexible and permeable. Such a person does not feel the need to disconnect from one role while entering the other role.

[segmented-roles description] A person with segmented work-life and home-life roles **will strive hard to keep these roles separate** and focus only on the active role (i.e., the role he or she is currently playing). For example, such a person would not take home calls while at work or discuss work at home and vice versa. **Generally speaking, a person with segmented roles is very rigid about the boundaries between his or her home-life and work-life roles. Such a person disconnects one role totally while entering the other role.**

#### *Section 4: Transient Work-life, Home-life Role-integration Manipulation Instructions*

[integrated-roles manipulation] “Now, please describe some ways in which you keep your work-life and home-life roles integrated and how you blend certain elements and facets of one role with the other role. For instance, what are some examples of how you engage in work-related thoughts and actions while at home. Likewise, what are some examples of how you engage in home-related thoughts and actions while at work? Feel free to be as general or specific as you like, but please be as detailed as possible.”

[segmented-roles manipulation] “Now, please describe some ways in which you keep your work-life and home-life roles segmented and how do you keep elements and facet of one role totally separated from the other role. For instance, what are some examples of how you ensure you engage in only work-related thoughts and action while in work. Likewise, what are some examples of how you ensure that you engage in home-related thoughts and actions while at home? Feel free to be as general or specific as you like, but please be as detailed as possible.”

## **CHAPTER 3**

### **Appendix A**

#### **SCREEN SHOT GROUP’S OSTENSIBLE ANSWERS (STUDY 1)**

Your group has successfully completed the registration process and will now proceed to the study.

Your group has been given the name- CLASSIC

**Group profile:**

Age composition:

9 out of 10 (90%) are 40 and above



1 out of 10 (10%) is below 40



Academic background:

20% (2 of 10) of participants are: Engineering

Favorite color:

50% (5 of 10) of participants liked the color: 

## Appendix B

### SCREEN SHOT BUICK'S INFORMATION (STUDY 1)

In this phase everyone in your group (*nine members above 40 including you & one member under 40*) will be asked to rate the 'Buick Lucerne' car



**Configurations:**

**Curb weight:** 3,735 to 3,998 lbs

**MPG:** Up to 17 city / 27 highway

**Horsepower:** 227 to 292 hp

**Warranty:** 4 yr/50,000 mi basic, 5 yr/100,000 mi powertrain

**Engine:** 3.9 L V6, 4.6 L V8

- USB port added to the center console on five-passenger models
- StabiliTrak with full-function traction control standard on all models
- Two new radios for five-passenger models, including one integrated with the available navigation system
- Premium steering components for more precise steering and a higher level of responsiveness
- Magnetic Ride Control technology – recalibrated for even more driver control and performance, while further reducing body roll in cornering and lane changes
- Eighteen-inch chrome-plated aluminum wheels with P245/50R18 all-season radial tires.

## Appendix C

**Negative-stereotype association:** 40-plus year-old participants ( $N = 20$ ), without any group context, were asked to evaluate these six cars (*Buick, Fiat, Ford, Acura, Hyundai and Infiniti*) on 3 measures on a separate 9-point scale:

- (i) I associate this brand more with *boring* = 1 versus *exciting* = 9
- (ii) I associate this brand more with *not fashionable* = 1 versus *fashionable* = 9
- (iii) I associate this brand more with *slow* = 1 versus *fast* = 9

Each participant's score for the *Buick* brand was compared with his average score of all the other five brands. An independent-sample t-test conducted to compare the *Buick* rating of each participant with the composite score obtained by averaging the score of all the other five brands revealed that *Buick* was considered (a) significantly less *exciting* ( $M_{Buick} = 3.45$ ,  $SD = 2.08$  vs.  $M_{others} = 5.28$ ,  $SD = 1.03$ ,  $t = -3.51$ ,  $p < .001$ ), (b) significantly less *fashionable* ( $M_{Buick} = 3.40$ ,  $SD = 2.43$  vs.  $M_{others} = 5.32$ ,  $SD = 1.01$ ,  $t = -3.25$ ,  $p < .002$ ), and (c) significantly less *fast* ( $M_{Buick} = 3.65$ ,  $SD = 1.81$  vs.  $M_{others} = 5.09$ ,  $SD = .96$ ,  $t = -3.13$ ,  $p < .003$ )

**Overall evaluation of the Buick:** 40-plus year-old participants ( $N = 20$ ), without any group context, were asked to rate the *Buick* on a 9-point scale ranging 1 (unfavorable) to 9 (favorable). A one-sample t-test using the *Buick* rating as the test variable and the mid-point of the scale (= 5) as test value revealed that senior participants (in the absence of any group context) had significantly favorable ratings of the *Buick* ( $M = 5.80$ ,  $SD = 1.11$ ,  $t = 4.32$ ,  $p < .000$ ).

## Appendix D

**Identity association:** Participants ( $N = 20$ , 9 female) were shown the cover of the novel, (*The (Im)Perfect Girlfriend*) and asked to indicate the extent to which the novel pertained to a



specific gender on a nine-point scale ranging from 1 (pertains to female identity) to 9 (pertains to male identity). A one-sample t-test using these identity-association scores as the test variable and the mid-point of the scale (= 5) as test value revealed that the novel was significantly associated with the female identity ( $M = 1.85$ ,  $SD = 1.51$ ,  $t = 12.66$ ,  $p < .001$ )

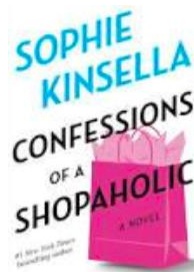
**Negative-stereotype association:** Participants ( $N = 20$ , 10 female) were asked to indicate to what extent the novel (*The (Im)Perfect Girlfriend*) reinforces negative stereotypes about females in general on a seven-point scale (1 = not at all, 7 = very much). A one-sample t-test revealed that the mean negative-stereotype-association was significantly above the midpoint (= 4) of the scale ( $M = 5.33$ ,  $SD = 1.85$ ,  $t = 3.29$ ,  $p < .004$ ), indicating that this novel reinforced negative female stereotypes.

## Appendix E

### Negative Stereotype-Typifying Book

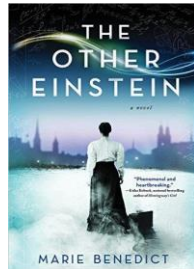


Actress Sarah Sargeant has finally landed the perfect boyfriend. But as she leaves London for LA, Sarah finds herself morphing from the perfect girlfriend, baby voicing 'i love you's, into a nutty one who throws phones and screams a lot.....



Meet Becky Bloomwood, America's favorite shopaholic – a young woman with a big heart, big dreams...and just one little weakness. Becky has a fabulous flat in London's trendiest neighborhood, a troupe of glamorous socialite friends, and a closet brimming with the season's must-haves. The only trouble is that she can't actually afford it—not any of it.

### Non Stereotype Books



*The Other Einstein* offers us a window into a brilliant, fascinating woman whose light was lost in Einstein's enormous shadow. It is the story of Einstein's wife, a brilliant physicist in her own right, whose contribution to the special theory of relativity is hotly debated and may have been inspired by her own profound and very personal insight.

Mitza Maric has always been a little different from other girls. Most twenty-year-olds are wives by now, not studying physics at an elite Zurich university.....

### Appendix F

Participants ( $N = 20$ , 9 females) were shown the covers along with a brief synopsis of three negative stereotype-typifying novels (*Confessions of a Shopaholic*; *Love, Lies and Louboutins*; *The (Im)Perfect Girlfriend*) and three non-stereotype-typifying novels (*The Mother*; *West with the Night*; *The Other Einstein*). Note that of these six novels, only two (*Confessions of a Shopaholic* and *The Other Einstein*) were used for the novel-evaluation task in the main study. In contrast, all six were used for the subsequent novel-choice task in the main study (however, only the covers of the six novels were displayed in the choice task in the main study).

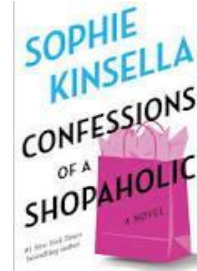
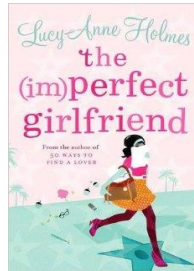
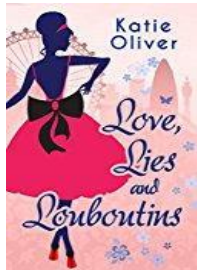
Participants were asked to indicate the extent to which each novel pertained to a specific gender on a nine-point scale ranging from 1 (pertains to female identity) to 9 (pertains to male identity) and to what extent each novel reinforced negative stereotypes about females on a nine-point scale (1 = not at all, 9 = very much).

**Novel-evaluation novels.** I focus first only on the two novels used for the focal novel evaluation task in the main study, *Confessions of a Shopaholic* and *The Other Einstein*. As expected, the mean identity-association scores for both *Confessions of a Shopaholic* ( $M = 1.50$ ,  $SD = 1.25$ ,  $t = 11.89$ ,  $p < .001$ ) and *The Other Einstein* ( $M = 2.50$ ,  $SD = 1.92$ ,  $t = 5.53$ ,  $p < .001$ ) were significantly below the midpoint of the scale, indicating a strong association with the female identity for both novels. Unexpectedly, *Confessions of a Shopaholic* was found to be significantly more associated with the female identity than *The Other Einstein* ( $t = 3.68$ ,  $p < .002$ ). However, the differences between these two novels in terms of how much they reinforced negative female stereotypes was also significant ( $M_{shopaholic} = 6.00$ ,  $SD = 1.41$  vs.  $M_{einstein} = 1.80$ ,  $SD = .71$ ,  $t = 10.14$ ,  $p < .001$ ). Moreover, the magnitude of the differences between these two novels was far greater in terms of negative stereotypes ( $\Delta = 4.20$ ) than identity association ( $\Delta = 1.00$ ,  $t = 6.08$ ,  $p < .001$ ). In sum, while a difference was found in how strongly the two novels were associated with the female identity (i) they were both strongly associated with the female identity (as compared to the scale midpoint) and (ii) the differences between the novels was far greater in terms of how much they reinforced negative female stereotypes. Hence, the stereotype-typifying qualities of the novels is likely to be the dominant cue when evaluating them.

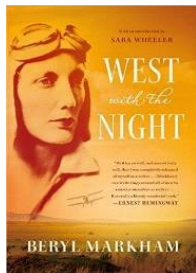
**The complete set of novels.** I then collapsed the identity-association scores across the three negative stereotype-typifying novels and, separately, across the three non-stereotype-typifying novels. As expected, both the stereotype-typifying ( $M = 1.59$ ,  $SD = 1.09$ ,  $t = 13.21$ ,  $p < .001$ ) and non-stereotype-typifying ( $M = 2.41$ ,  $SD = 1.54$ ,  $t = 7.12$ ,  $p < .001$ ) novels' identity-association scores were significantly below the midpoint ( $= 5$ ) of the scale, indicating a strong association with the female identity. Moreover, participants felt that three stereotype-typifying

novels reinforced negative female stereotypes ( $M = 5.59$ ,  $SD = 1.44$ ) significantly more than the three non-stereotype-typifying novels ( $M = 2.50$ ,  $SD = .66$ ,  $t = 8.24$ ,  $p < .001$ ).

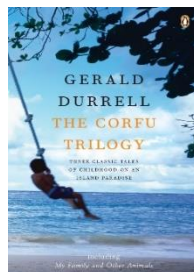
### Negative Stereotype-Typifying Books



### Non Stereotype Books



## Appendix G



Just before the Second World War the Durrell family decamped to the glorious, sun-soaked island of Corfu where the youngest of the four children, ten-year-old Gerald, discovered his passion for animals: toads and tortoises, bats and butterflies, scorpions and octopuses. Through glorious silver-green olive groves and across brilliant-white beaches Gerry pursued his obsession . . . causing hilarity and mayhem in his ever-tolerant family.

**Identity association:** Participants ( $N = 20$ , 9 female) were shown the cover of the novel, *The Corfu Trilogy*, as presented above, and asked to indicate the extent to which this novel pertained to a specific gender on a nine-point scale ranging from 1 (pertains to female identity) and 9 (pertains to male identity). A one-sample t-test revealed that the mean identity-association score for the *The Corfu Trilogy* was *not* significantly below the midpoint ( $= 5$ ) of the scale ( $M = 6.11$ ,  $SD = 1.13$ ,  $t = 4.16$ ,  $p < .001$ ). In fact, it was slightly above the midpoint, indicating that *The Corfu Trilogy* does not have a strong association with the female identity.

**Negative-stereotype association:** Participants ( $N = 20$ , 9 female) were then asked to indicate to what extent the novel (*The Corfu Trilogy*) reinforces negative stereotypes about females in general on a seven-point scale (1 = not at all, 9 = very much). A one-sample t-test revealed that the mean negative-stereotype-association for *The Corfu Trilogy* was significantly below the midpoint ( $= 5$ ) of the scale ( $M = 2.67$ ,  $SD = 1.49$ ,  $t = 6.61$ ,  $p < .001$ ), indicating that participants did *not* believe it reinforced negative female stereotypes.

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