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Novel predictors of women's surname retention at marriage

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Philosophy
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Abstract

Women's marital surname change was investigated as a potential marital commitment signal, and strategy for enhancing investment from in-laws and husband.

Hyphenating or keeping premarital surname for all U.S. destination brides marrying in Hawai'i in 2010 was significantly correlated with a women's income measure ($r = .78, p < .000$) and with the analogous statistic for men ($r = .64, p < .000$), by bride's state of residence. The women's measure, only, remained significant under regression of both predictors. The interaction of state Gini and the women's income measure in a regression including the interaction components as predictors was positively predictive (adjusted- $R^2 = .57$). None of several other predictors suggested by previous research or related to Gini or income were significant under regression, alongside the women's income measure. The older the bride, from any jurisdiction, marrying in Hawai'i in 2010, the more likely to hyphenate/keep premarital surname ($\chi^2_{(1)} \text{ for linear trend} = 1754.65, p < .000$).

Among all opposite-sex couples ($N = 167$ couples) divorcing in a Canadian county in an 8-month period, 2013-2014, marriages the women in which underwent marital surname change lasted 60% longer, controlling for wife's age at the time of marriage. When the woman's marital surname change/retention was used as a regression predictor of number of children of the marriage alongside marriage duration in years, only the latter was predictive.

Brides-to-be from across especially western and central Canada ($N = 184$) were surveyed as to marital surname hyphenation/retention versus change (DV 1), and attitude towards such retention in general (DV 2). Among women engaged to men, the hypothesized predictors of income and number of future children desired were positively predictive of marital surname retention/hyphenation under univariate analysis. Under multiple regression analysis using these and other predictors from the literature also found to be predictive of this DV under univariate analysis, only some of these other predictors were predictive. An EFA factor score calculated from several attitude items concerning in-laws, conceptualizable as *In-law avoidance motivation*, was not predictive of general attitude toward or actual retention/hyphenation, contrary to prediction.

Keywords

marital surname change, brides, relationships with in-laws, husbands, marital commitment signaling, women's income, marital investment enhancement, North America

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Chapter 1

Introduction¹

In many countries such as Canada and the U.S. ² women, and only women, customarily change surname at marriage to that of their (male) spouses. Yet, some married women continue to use their premarital surnames instead. Such use of the premarital surname is associated with, among other things, children's inheritance of not just the mother's husband's surname, but also her own (Johnson & Scheuble, 2002; Duchesne, 2006). Thus, women's marital surname choice affects which surnames are transmitted across generations, and hence survive. Marital surname choice is reported to be a fraught decision for some women (*e.g.*, Boxer & Gritsenko, 2005), and potentially impacting on their earnings (Goldin & Shim, 2004). Finally, there is evidence of strong, largely negative, and sex-differentiated perceptions of women who either retain or hyphenate their premarital surnames (*e.g.*, Murray, 1997; Stafford & Kline, 1996; Suter, 2004). These facts beg several questions, inspiring the current research. Why do some women continue to use their premarital surname after marrying? What are the factors associated with/predictive of this decision? Could such public acknowledgement of one's married status and affiliation with the husband and his natal family constitute a signal? If so for whom is such signal made, and what is signaled by it?

There are at least two, non-mutually exclusive, possible evolutionary rationales for the given behaviours, each related to the other. One concerns the possible selection pressure exerted on brides by parents-in-law under patrilocality over evolutionary time, and possible resultant counter-adaptations. ³ The other concerns the greater average benefit to women's as compared to men's reproductive success (RS) by the receipt of resources, and men's but not

¹ Some passages from this chapter are from MacEacheron, M. (2009). Factors associated with Hamilton, Ontario women's marital surname change attitudes. McMaster University (Thode Library archives).

² This also appears to be the case among women in Los Angeles and Hawai'i who self-identify as being of Asian descent (*e.g.*, see Kitano *et al.*, 1984). In China, women traditionally do not take their husbands' surnames (though they may) but children do (Quan *et al.*, 2006). In Japan, brides traditionally had to take their grooms' family surnames, but now either 'house's surname may be used by both spouses (Kawashima, 1992). In India, surname change at marriage is "common" (Deshpande, S. (2012). Now, women can retain their maiden name, *The Times of India*, 26 February 2012, <http://articles/timesofindia.indiatimes.com/2012-surname-maiden-family-courts-act>, accessed 28 February 2013.)

³ This thesis originally included only this possible rationale. Note that this rationale included some anthropological data which I erroneously described. I thank the examiner who brought this to my attention.

women's risk of investment in a partner's offspring they erroneously believe they are the biological parent of (cuckoldry risk). These will be discussed in this chapter, in that order. Additionally discussed, will be the decades-deep literature on women's marital surname change, and its history, especially in North America.

Possible selection pressure exerted by parents-in-law on daughters-in-law

Surnaming practice, as it is traditionally practiced in a number of countries (including Canada and the U.S., where the within studies occurred), consists of the passing of solely the (married) father's surname to offspring, and the taking of solely the husband's surname by a wife at the time of marriage. To the extent such change of surname renders the wife a member of her husband's family (or, at least those members of his family sharing his surname), she is thus transferred, in some sense, to her husband's family with this change. According to the ethnographic record, patrilineage (tracing of descent solely via the male line) is much more widely emphasized than is matrilineage. Children and wives are often characterized as belonging to their birth or marital patrilineage, respectively, in patrilineal societies, and contemporary marital naming might have arisen from such traditions. Rarer than matrilineal societies, and with fewer member numbers, are *matrilocal* (female philopatric: co-residence of married couple with the wife's mother or within the latter's community) cultures (Murdock, 1949; see also discussion in Geary, 2010). There exists some evidence that one species of our pre-*Homo sapiens* ancestors were patrilocal (Kumar *et al.*, 2006). That the current residential practice in some societies including foraging societies, which was also the apparent ancestral one, is the *actual* ancestral one, is one logical interpretation of these data (see Chapais, 2009, for this conclusion based on discussion of the relevant literature). If this was indeed the case, patrilocal (Geary, 2010), but also in-laws, were potential selection pressures on new brides: females (and males) over evolutionary time may have had their reproductive success increased by any in-born tendency to please their partner's parents (resulting in more resource investment, and less animosity directed to him/herself and his/her children). Under patrilocal, where a female's affines are present but a male's are not, it is to be predicted that females would have been subject to a stronger selection pressure from affines, and should have evolved more 'defences' to such control (whether ingratiating themselves with in-laws, avoiding them, or other things). Thus, a novel

hypothesis undergirding the others of mine in this thesis, is that in-laws may have acted as a selection pressure, over evolutionary time, especially on daughters-in-law and their children.

Apostolou (2007a) points to the utility of viewing modern foragers' behavior as particularly illustrative of conditions of the Environment of Evolutionary Adaptedness (*i.e.*, the type of environment all humans lived within until approximately 10,000 years ago). The same author (2007a, 2011) reviews and discusses data that point to, over evolutionary time but also in the present day in most foraging (and many other) cultures canvassed, spouses being chosen at least in part by an individual's parents and prospective in-laws (2008a) and not (solely) by him/herself. Thus, given patrilocality, it is perhaps unlikely that over evolutionary time a *new* bride could necessarily have relied on her husband, out of positive regard that had had no time to develop, to act in accordance with her interests where these conflicted with those of his parents or himself.

Voland and Beise (2005) showed for a usually-patrilocal, historical population in Krummhörn, Germany, that women's mothers-in-law being alive increased the former's risk of stillbirth. Most stillbirths occurred in wives married less than 1.5 and more than 12 years: among the former group, risk increase associated with mother-in-law being alive was 62%. Where the mother-in-law was alive, the risk of stillbirth rose by 45% if she resided in the same parish as the woman, but not at all if the woman resided elsewhere. These authors posit that stress from the mother-in-law was a causal factor in stillbirths studied. They further posit that mother-in-laws' 'mate'-guarding of these women (on behalf of the mother-in-laws' sons) and attempting to extract undue economic productivity from them so as to be able to divert it to their genetic relatives, was the cause of this stress. These acts would serve to increase the mother-in-law's reproductive success, by increasing the paternity certainty of her son, and the resource level of her genetic relatives, even where this occasionally would result in the stillbirth of one of her grandchildren. The authors discuss another trade-off involved with such behavior on the part of the mother-in-law, and when, facultatively, it would be predicted to occur:

... Other things being equal, the pressure on her daughter-in-law by the mother-in-law should be all the stronger when the costs are lower for her. ... The more autonomously the daughter-in-law is able to make autobiographical decisions, the

riskier and thus more costly the escalation of dominance claims by the mother-in-law becomes. ... (F)urthermore, the dominance of the mother-in-law should increase to the same degree as her help and support is valuable. (pp. 249-250)

Finally, these authors posit that acting in these ways would be particularly useful to achieving these ends, where done early in the marriage (Voland & Beise, 2005).

Based on the surmise that a new bride may not have been able to rely, at the start of her marriage, upon her husband's assistance where her affines sought to not treat her to her advantage (see generally Apostolou 2007a, 2008a, 2001), as well as on Voland and Beise (2005), there should have been particular advantage derivable by brides from signaling at the start of marriage her devotion to her new family. This is a group whose shared surname a bride traditionally takes at marriage in many societies. Such a signal, though it might primarily be targeted to his family rather than he alone, might still be desired by grooms, in part since his family should tend to promulgate his interests (as a genetic relative) over hers (as an affine: and see Apostolou, 2009). Consistent with this, is the finding that only *males'* preferences in a spouse have been found to largely correlate with those of his or her parents (Apostolou, 2008b).

Perhaps casting some doubt, however, on in-laws' extra, traditional, dominance if any over daughters-in-law especially, though highlighting the importance parents-in-law place on relationships with daughters-in-law, were some results of a 2015 survey of adults estranged from other adult close family members. In this study ($N = 807$: 89% female, 9% males) primarily of U.K., U.S., Canadian, and Australian residents, among participants estranged from only one adult child, in data regarding estrangement from adult sons versus daughters, factors reported as "very relevant" to the former included two not seen in the latter. That is, parents of adult *sons*, only, cited "issues relating to In-laws" (25%) and "issues relating to marriage" (25%) as "very relevant" to the breakdown of their relationship with their adult child (Blake, Bland & Golombok, 2015).

Although surname transmission from father to child is not universal, a sampling of types of descent reckoning, world-over, has shown more than twice as many patrilineal (42%) as matrilineal (20%) societies (Murdock, 1949). Canada and the U.S., the locations of the studies in this thesis, do traditionally utilize patrilineal transmission of surname, though

they have been characterized as utilizing bilateral descent reckoning overall (Davenport, 1959). Be that as it may, surname may still be an important indicator of family unit or relatedness in these countries (see, *e.g.*, Schneider & Cottrell, 1975, in which, within a U.S. sample, more relatives on father's side of the family were recallable despite greater contact frequency with mother's side relatives). Assuming surname transmission down the male line is but one means of asserting and/or tracing some form of patrilineality, the study of such surname transmission may have relevance to patrilineal societies, and not just the (primarily bilateral descent reckoning) societies in which the practice occurs.

Augmentation of women's RS via receipt of resources, and male partner cuckoldry risk

Females, cross-culturally, value resource-holding or resource-holding potential in male mates, more than males do in female mates, and do so highly (Buss, 1989). Due to women's lesser ability, at least if foragers, to procure resources themselves during pregnancy and lactation (*e.g.*, regarding lactation, Hurtado *et al.*, 1985), and yet greater need of calories at such times (*e.g.*, Abdullah & Abdullah, 2004) in order to augment their reproductive success (RS), *women's* RS would logically be particularly promoted by receipt of resources (see *e.g.*, Buss, 1989). An additional reason why women's RS might particularly benefit from resource-investment is that mothers, in multiple cultures, are the class of relatives providing the most care for children (*e.g.*, in industrial societies, Minge-Klevana, 1980). Thus, mothers may tend to have less time than any other class of children's relatives, to procure resources for themselves and for their children, and yet may be responsible for direct provision of such resources to the latter.

One of the most likely, potential, ultimate providers of such resources is the putative father of her children since such children, if sired by the putative father, also constitute units of his RS. That is, assuming the children's own RS would be decreased were they not provisioned by him and assuming the absence of other reproductive opportunities in which he might invest to greater advantage, it is in the interests of his RS for him to provision these children, if he sired them. In other species, there is direct evidence that such investment amount is at least partly contingent on the father's paternity certainty (see discussion in Geary, 2000), and hence his certainty as to the offspring's genetic relatedness to him. Logically, it might also be greater, the greater the number of units of reproductive success

(*i.e.*, number of genetic children), all else being equal. Note finally that marriage can be understood to constitute a reproductive union (Buckle, Gallup & Rodd, 1966).

Taken together, these facts and arguments led to my underlying hypothesis that (opposite-sex marriage) brides may attract more resources for themselves and their future children if any, by signaling they are committed to the marriage/their husbands. The greater the number of years of commitment to the marriage, the greater the number of children that may be expected, all else being equal. Marital infidelity is one of only a few traditional grounds for divorce in Canada (see discussion in Snell, 1991) and may be a cause of it even where it is not used as such a ground. Thus, the greater the commitment to the husband, perhaps the less wifely marital infidelity or perceived wifely marital infidelity, all else being equal. So for brides for whom a longer marriage/greater marital commitment would better suit their reproductive interests, signaling in this way, if grooms respond to such signal by increasing investment in these brides and future children of the marriage, would increase the RS of both spouses. Grooms would be predicted to tend to respond more in this way to such signaling, where it is costly (see generally, regarding costly signaling, Nesse, 2001).

For this reason, I speculate that human evolved psychology could favour (1) those females to whose benefit it would be, at the initiation of long-term sexual relationships, performing such signaling, and (2) their male mates being influenced by it to increase investment in these females and any children of the relationship. I posit that it would tend to be more in the interests of younger such women, in possession of greater residual reproductive capacity and who therefore would tend to expect more children of the marriage, to so signal. For analogous reasons, I posit that it would tend to also be more in the interests of women intending on bearing more children (within the marriage), to so signal. All such women will themselves tend to be in greater personal need of resources, if at all, from others during pregnancy and lactation as well as until children are no longer in need of care-giving, than women who cannot or will not bear as many children. All such women will also tend to be in greater need of resources, if at all, for their children, from others during child-rearing, than women who cannot or will not bear as many children. The most likely candidates for providing such resources are those who will also derive a reproductive benefit from her childbearing: her husband and the children's (other) genetic relatives. Maternal grandmothers are the class of grandparent most likely to so invest, including in cultures in which most of

their daughters take another's surname near the beginning of their reproductive careers: paternal grandfathers are the least so likely. A signal that would please the least-likely provisioners where the other provisioners' help is almost assured, seems to be one that would attract the greatest, combined total resources from the children's relatives.

Logically, one means of achieving the goal of signaling commitment to a husband might be taking his surname, given that it would seem to be a public act of affiliation with everyone who already bears that name. Women who do so have been found to be perceived as more committed to the marriage (*e.g.*, Suter 2004; Robnett, Underwood, Nelson & Anderson, 2016). Additionally, as noted, marriage may be understood as constituting a reproductive union. That women's marital surname change is done at the start of the bride and groom's reproductive union, may indicate that it pertains to that reproductive union.

Marital surname change may constitute a signal at all (of the given commitment), in that it temporally precedes that which it is intended to indicate, is clear/unequivocal, and is noticeable. Further evidence that women's marital surname change constitutes a signal is the fact that children of marriages the women in which underwent the practice have been found to be more frequently surnamed for solely the father (*i.e.*, with the surname the bride takes at marriage: Johnson & Scheuble, 2002: see also Duchesne, 2006). That is, in addition to anything else it may or may not signal, it is known to signal that children of the marriage will be surnamed only for the husband—something about which husbands more so than wives may care deeply (Cherlin, 1978). Also of note is the fact women's marital surname change may be an especially trustworthy signal in that it is public, and frequently (*i.e.*, as often as her new surname is used) repeated. As such, it is less deniable in future by the signaler than it would otherwise be. In general, the more a signal is costly to the signaler to produce, the more reliable it is (Nesse, 2001). There is reason to believe that women's marital surname change incurs some cost to the woman, both administratively and emotionally (regarding emotional cost, see generally Boxer & Gritsenko, 2005), and has been found to be perceived as additionally resulting in a future earnings decrement if she has a professional reputation (Goldin & Shim, 2004). Of course, the administrative burden on a woman who practices marital surname change is doubled, should she leave a marriage and re-marry. For such a woman the fact she is a divorcée or widow rather than never-married, may also be made more obvious if she underwent marital surname change. To the extent a woman's never-

married status is preferred to divorcée or widow status among potential grooms, having to constantly indicate, since it is clear from one's name (plus honorific) that one is a divorcée or widow, might dampen such a woman's prospects of re-marriage. Thus, there may be a future fitness cost incurred by brides undergoing marital surname change, should they subsequently divorce (or their husbands die).

By analogous argument to that concerning signaling to the groom, the bride's marital surname change may also signal to the grooms' kin (many of whom would also bear the relevant surname) her commitment to the groom/marriage. It may also increase the prestige of some of these in-laws by making their surname be borne by at least one more individual (the bride) and, if children of the marriage are produced, more likely be borne by these. This may please them, and perhaps even make them feel closer to the bride. Paternal grandparents have been found to contribute to grandchildren more so where these feel closer to the grandchildren's parents (Michalski & Shackelford, 2005). Due to these factors, women's marital surname change may tend to increase their in-laws' investment in them and in any children of their marriages. As the groom's genetic relatives, these kin's RS also rises should he be the sire of any children of his marriage and, all else being equal, to the extent to which such children are produced.

Some such classes of the husband's relatives (as well as relatives within the bride's own family) have been repeatedly shown to invest in the children of the marriage. As noted, for example, grandparents have been shown to contribute sometimes greatly, with such contribution being on average greater or lesser, depending on whether the grandparent is the mother's mother, mother's father, father's mother, or father's father: This has been found in geographically-separated cultures one of which seems unlikely to have culturally influenced the other/both of which are not known to share any cultural influence that would explain the similarity (*e.g.*, in the West, Young & Willmott, 1957; Jackson, 1971; Cherlin & Furstenberg, 1986; among the Hadza, Hawkes *et al.*, 1997). Thus, the tendency to help among father's (and mother's) relatives may be an evolved one.

Father's father, as noted, is the least-certain of these contributors across a number of cultures, except those practicing patrilocality in such a way that the mother's family is inaccessible (see *e.g.*, Pashos, 2000; but see Sear, Mace & MacGregor, 2000, in which maternal grandmothers were the sole class of relative other than the mother the presence of

whom had a positive effect on children's nutritional status, in a virilocal society in which these grandmothers lived in a community neighbouring that of their grandchildren and the paternal relatives of these). Father's mother constitutes one of the two classes of grandparent of moderate contribution certainty. Father's father and father's mother are the two classes of grandparent who, traditionally in cultures in which women undergo marital surname change, bear the surname the bride takes. Thus, it is possible that by publicly showing affiliation at a cost to herself with those less-certain investors, as well as with her husband, she may maximize the support she receives from all her relatives (see generally MacEacheron, 2016): her contributions from her mother would remain the same, and those from her parents-in-law and husband would increase.

Not all brides would seek to participate in marital surname change even assuming it tends to maximize relatives' investment in she and any future children of the marriage. Though it is an extremely common action in the U.S. (*e.g.*, Johnson & Scheuble, 1995), for some surveyed brides this is a fraught decision, with some reporting feeling torn due to concerns regarding, for example, identity, and connection to own natal family (*e.g.*, Boxer & Gritsenko, 2004). Additionally, despite its extreme normativity there have been women who do not engage in it over several decades, and factors that have repeatedly predicted such non-engagement (*e.g.*, increased imputed wealth on the part of the bride; Goldin & Shim, 2004, MacEacheron, 2011).

There are two primary, less-trivial (compared to temporary administrative burden of actual surname change procedures) reasons I posit for some brides forgoing the likely benefits of marital surname change by not engaging in it: one is its perceived economic cost to her, and one concerns her personal freedom. Each regards the costliness of the act, which I posit to be a signal. Regarding the economic reason, note that it was a perception among some U.S., female college students that surname change would be professionally detrimental (Goldin & Shim, 2004). If it were, presumably some deleterious financial effect could be expected.

Evidence regarding personal freedom comes from the finding, discussed above, that married women's RS was negatively impacted by the presence of a mother-in-law in one historical population (18th and 19th century Krummhörn, Germany: Voland & Beise, 2005). As noted, these authors posited that the negative impact was effected via harassment,

‘mate’-guarding, and extraction of daughters’-in-law resources these accrued via their labour. They posited the ultimate reasons for such interference by mothers-in-law was to ensure daughters’-in-law sexual fidelity to the mothers’-in-law sons, and re-distribution of resources from the daughter-in-law to the mothers’-in-law genetic relatives. Ensuring these daughters’-in-law marital fidelity, of course, would increase the certainty of the mothers’-in-law grand-maternity. The presence of the mother-in-law resulted in an increase in the daughter-in-law’s still-births, and thus, presumably, a detriment to her RS. To the extent actions of in-laws include restriction of personal freedom for the daughter-in-law including, perhaps, lesser freedom to find an alternative spouse if her marriage is sub-optimal for her, or behave so as to enhance her accrual of resources but reduce the level at which she and her actions could be scrutinized by her husband and in-laws, I posit these might dampen her RS, while increasing that of her husband and in-laws. Thus, in-law involvement with a daughter-in-law, though it might benefit her and her children in that it *could* include the transfer of resources to her, might also result in a decrease in her ability to make choices to enhance her fitness.

In this way, in-law involvement may constitute a double-edged sword in terms of the daughter-in-law’s RS. Given it is less helpful to daughters-in-law less in need of resources, either because of greater personal earning ability/resources or lesser ability/desire to bear children, these might tend to eschew it in favour of greater ability to accrue (more) resources and the personal autonomy in personal decision-making lesser scrutiny from in-laws may afford. Additionally, resource transfer from in-laws to daughters-in-law might be piecemeal in nature. That is, instead of being entirely bestowed via a large, one-time gift at the start of marriage (*e.g.*, a wedding gift), help from in-laws might be given a number of times over the span of the marriage. As such, such investment might be contingent on the daughter-in-law continuously pleasing her in-laws. After all, if she fails to continuously provide satisfactory proof to her in-laws of complete sexual fidelity to her husband, they run the risk of being ‘grand-cuckolded’ by her, and their investing in her and her children would become less beneficial to themselves or even contrary to the interest of their RS’s. Indefinitely pleasing/reassuring her in-laws in this way in order to enhance their investment, all else being equal, is more difficult than doing so for a shorter amount of time. Thus, this (posited) cost of in-law investment may be too great to be offset by in-law resource investment, for

some brides.

History, law surrounding, and review of the literature concerning women's marital surname change and retention

With the rise of feminism in the 20th century, many women began to question laws and customs that implicitly or explicitly construed wives as property of their husbands: this included the custom of marital surname change. Nevertheless, a large majority of Western women maintain the practice. For example, in a 1992 survey presented as representative of the U.S. population, just 1.4 % of 929 still-married respondents, who had been between 19 and 55 years of age and married in 1980, reported that the wife used a surname other than her husband's or hyphenated the two (Johnson & Scheuble, 1995). One of each respondents' ever-married offspring 19 or older in 1992, who had dwelt with the respondent in 1980, were similarly surveyed (n = 180): 4.6% reported that they (if women) or their wives (if men) used a surname other than the husband's, or hyphenated. Thus, premarital name retention had tripled in a generation, but remained rather rare.

Limited evidence suggests that this increase is not accelerating, and is perhaps even reversing. In 1978, about 10% of couples marrying in Hawai'i, the only American state requiring marriage licence documentation to bear the intended last name of the bride, stated that the bride would retain her pre-marital surname, either using it alone or combining it with that of her husband by hyphenation (Cherlin, 1978); thirty years later, this statistic had increased only to 16.7 % (MacEacheron, 2011). According to Goldin and Shim (2004), the percentage of college-educated, Massachusetts women electing to keep or hyphenate their surnames upon marriage may actually have been decreasing since the early 1990s (see also Gooding and Kreider, 2009; Kopelman, Shea-Van Fossen, Paraskevas, Lawter & Prottas, 2009). Analogously, surnaming children of marriages for their mothers (almost always in a surname combining that of the father with the mother's) in the Canadian province of Quebec, in which women's marital surname change was disallowed (though a married women could use her husband's surname "socially") in 1980 ⁴, first increased dramatically after this time

⁴ *i.e.*, these jurisdictions' Vital Statistics Offices and/or their website information or legislation on the topic note this. In general, applications for name changes in Quebec, apart from those under court jurisdiction, must be made to the registrar of civil status, and only for "serious" reason (Civil Code of Québec, C.c.Q., 1991, c. 64, a. 58). Explicitly, per article 393 of the Civil Code of Québec, "In marriage, both spouses retain their respective name, and exercise their respective civil rights under those names." A woman married in Québec may, however, use her husband's surname "socially" (personal

and then also abated, albeit less dramatically (Duchesne, 2006). Surveyed female college students in the U.S. Midwest have shown static marital surname change intention, but increased negative attitude (saying they were less committed to the marriage) toward women not taking husband's surname at marriage, over recent years (Scheuble, Johnson & Johnson, 2012).

Only between the mid-1970s and mid-1980s did it become legal for a married woman to retain her natal surname for all purposes, in all U.S. states (Twenge, 1997; and see discussion in Goldin & Shim, 2004). In Canada, all territories and provinces other than Quebec note that a woman need not change her surname upon marriage, and that she may “assume”/“adopt” that of her husband (*i.e.*, change her surname without having to undergo a legal name change). Automatic name change does not occur upon marriage in Canada or the U.S.: one assuming or legally changing surname must typically submit proof of the marriage and a request to change surname to all entities issuing her with identification and/or that she deals with under her name.⁵ Absent doing so a married woman has, by default, retained her pre-marital surname.

Thus, despite increasing gender equity, the practice of changing one's surname at marriage remains strong. (Despite this, feminist identification and feminist movement endorsement will be used as potential predictors of women's marital surname retention/hyphenation in Study 3, since they would seem logically related and might contribute to causation.) The great majority of American women do change their names at marriage: it is only among the highly educated that one is likely to find a substantial minority who would intend to retain their natal surnames (Golden & Shim, 2004; see also Robnett & Leaper, 2013). This persistence is not peculiar to the United States. For example, Noack and Wiik (2008) report only small changes in the practice among Norwegian women in recent decades.

communications with Céline Therrien and Lise Leblanc, Centre de communications avec la clientele, Ministère de la Justice du Québec, 20 November 2007 and 11 January 2008, respectively).

⁵ Various sources, including personal communication, Karen Kieley, Research and Statistical Officer, Vital Statistics, Service Nova Scotia and Municipal Relations, 19 November 2007; Legal Change of Name, www.servicealberta.gov.ab.ca/vs/name_change.cfm, September 2007; Frequently Asked Questions – Marriage, <http://www.vs.gov.bc.ca/questions-marriage.html>, 5 June 2008; Family Law in Manitoba – 2005 Edition, Chapter 14 – Change of Name, www.gov.mb.ca/justice/family/englishbooklet/chapter14.html, 5 June 2008; Changing Information on a Driver's Licence, <http://www.mto.gov.on.ca/english/dandv/driver/change.htm>, 5 June 2008; Goldin & Shim (2004) cite these actions as necessary for U.S. women in this circumstance.

Marital surnames affect how children are surnamed, and hence whether names persist over generations. In many countries including Canada and the United States, a large majority of children carry their fathers' surnames (Emens, 2007), and this majority approaches 100% in those cases in which the mother took the father's name at marriage (Johnson & Scheuble, 2002). Thus, taking a husband's name may signal to him that any children of the marriage will also bear his name. Of course, women are not so naïve as to believe that taking a husband's name will guarantee that he will accept legal responsibility for future children (Intons-Peterson & Crawford, 1985), but it remains plausible that name-saking really does elicit investment (see, *e.g.*, Cherlin & Furstenberg, 1986; Furstenberg & Talvitie, 1980).

That an apparent sacrifice (of name) is being made in the long absence of legal force suggests that, perhaps, something is gained by brides sacrificing their surnames. Of course, even in the absence of legal name change, assuming/adopting one's husband's name constitutes a public declaration of the union, and may be viewed by witnesses as a sign of commitment to him and his family. If name change indexes such commitment, or is so construed, several hypotheses about surname change and attitude thereto follow. For example, women who especially value good relations with future in-laws and/or who especially need paternal or in-law investment in their children, may view surname change especially favourably.

Marital surname change or retention: Predictors and perceptions

U.S. women's surname change decisions and/or attitudes have been shown to vary in relation to age, religiosity, religion, ethnic and cultural background, full-time employment status, and educational, professional, and economic status (Abel & Kruger, 2011; Blakemore, Lawton, & Vartanian, 2005; Boxer & Gritsenko, 2005; Goldin & Shim, 2004; Hoffnung, 2006; Intons-Peterson & Crawford, 1985; Johnson & Scheuble, 1995; Kline, Stafford & Miklosovic, 1996; Scheuble & Johnson, 1993, 2005; Twenge, 1997). Additional predictors of taking the current husband's surname include prior marriage, the woman's mother's own surname choice, region, pre-marital cohabitation, and gender role traditionalism (Johnson & Scheuble, 1995). Various U.S. studies have also shown that the wealthier and more educated a woman, the less likely she is to take, or to express approval of taking, husband's surname (Goldin & Shim, 2004; Hoffnung, 2006; Johnson & Scheuble, 1995, 2005), and that women

in positions to earn more money are less likely to take or approve of taking husbands' surnames (Scheuble & Johnson, 1993; Kline, Stafford & Miklosovic, 1996; Johnson & Scheuble, 1995; Goldin & Shim, 2004). Note, however, that one of these studies found an exception to the rule that the more educated the woman, the less likely she would be to take her husband's surname: this occurred where his family was more 'prominent' than hers (Goldin & Shim, 2004). These last authors hold as one of their conclusions that being in a profession in which reputation is earned under one's name is correlated with not undergoing marital surname change. This correlation suggests a potential economic cause of the practice/abstaining from the practice.

This alternate or complementary explanation to my own (*i.e.*, resource maximization from all sources, including resource recruitment enhancement from husbands and in-laws, as well as 'getting in good' with the latter) for women's marital surname change practice will be further explored especially within Study 1 of this thesis. Note that from the given literature review, and based on my own reckoning of potential causation of the phenomenon prior to performing the studies within, I could identify no additional (ultimate) cause for marital surname change. Many proximate causes or associations (*e.g.*, traditionalism), however, are helpfully contained in the women's marital surname change practice literature: all such associated variables that were feasible to include in Study 3 were included, and assessed for predictiveness of undergoing/not undergoing marital surname change and general attitude to the latter.

There is evidence that economically independent women, rather than selecting men solely on other criteria, still desire a husband whose status and income potential match or exceed their own (Townsend, 1998). An ultimate reason for this, in turn, could be the evolutionary interest residing in being wealthier than the other members of one's group. Where a couple attains *relative* wealth in a group, it should not only do 'that much' better reproductively: its number of direct descendants should have the best chance of spiking assuming it invests in its sons so as to make them the wealthiest men in the group. That is so, since such men are the only ones likely to become polygynous (see generally Borgerhoff Mulder, 1990; review in Low, 1993) or, in North America, effectively polygynous via serial marriages to young women. Poor and 'middle-class' couples cannot hope that their sons will attain polygyny, due to these couples' inability to invest in them enough to make them the

wealthiest. Relative wealth, then, should allow a couple to have polygynous sons and, therefore, roughly as many more grandchildren as would be predicted by them having had as many more children as their son has wives additional to his first (see generally, Dawkins, 1976).

There are only two published, Canadian studies concerning the topic of attitudes to marital surname change, neither of which justifies general conclusions. Embleton and King (1984) report data gathered by a young woman at a campus pub and nearby exotic dance club, who surveyed customers and staff as to their attitudes regarding women's marital name change; slightly more than half of the 43 respondents characterized surname keepers as "assertive" and "oriented toward a job rather than home or family". Atkinson (1987) asked participants in Ontario, Canada to rate women who kept their maiden names at marriage on various attributes. There was a clear indication of greater male than female negativity toward such women. Similar to Murray's (1997) U.S. finding that women retaining their premarital surnames were seen as less attractive (and as making worse mothers), the Canadian men of Atkinson's survey rated women who retained their premarital surnames as less attractive. Similar attitudes have been shown to persist to the present day in the U.S. Midwest (Scheuble, Johnson & Johnson, 2012).

"(S)ociodemographic cleavages" such as left- or right-leaning politically, have been found to predict marital surname change in the U.S. (Hamilton, Geist & Powell, 2011, p. 149). The authors note that this, and especially collectivism/individualism, have been found to impact gender attitudes, "net of sociodemographic factors" (at p. 108).

Maternal familial biases in affiliation and investment

Notwithstanding the prevalence of patrilineal naming practices, there is considerable evidence that actual interaction and nurturance exhibit a maternal familial bias when both paternal and maternal relatives are accessible. An early report was that of Young and Willmott (1957), who found that East London children spent more time with their maternal than with their paternal grandmothers. Jackson (1971) demonstrated a similar effect controlling for proximity: African-American grandparents saw their daughters' children more often than their sons' children, if both son and daughter lived in the same location as the grandparents or if both lived elsewhere. Similarly, Smith (1988a) reported that Canadian

children visited their maternal grandparents more often than their paternal grandparents despite the fact that both sets of grandparents' homes were equidistant from those of the grandchildren. After divorce, the relationship between maternal grandparents and grandchildren in the U.S. often deepens, whereas the frequency of contact with paternal grandparents typically declines (Cherlin & Furstenberg, 1986).

Evolutionists, beginning with Smith (1988b), have interpreted these phenomena as a reflection of adaptive variation in grandparental solicitude. Because paternity is uncertain, maternal grandmothers are the only grandparents with complete certainty of relatedness to the children and should therefore be the most willing to invest. Paternal grandfathers are connected to the children by two uncertain links, and should therefore be least confident of relatedness and least solicitous, while maternal grandfathers and paternal grandmothers are each connected to the children by one certain and one uncertain link, and should therefore be intermediate in solicitude. Several studies have produced data that have been interpreted as supportive of this argument (Smith, 1988b; Euler & Weitzel, 1996; and see Shackelford, Michalski & Schmitt, 2004; DeKay, 1995).

Social scientists without a Darwinian worldview have also noted the tendency for maternal grandmothers to surpass other grandparents in affection, contact, and investment, followed by maternal grandfathers and paternal grandmothers, and finally by paternal grandfathers (*e.g.*, Hoffman, 1979-1980; Hartshorne & Manaster, 1982; Hodgson, 1992; Kahana & Kahana, 1970; Kennedy, 1990; Robins & Tomanec, 1962; and see Van Ranst, Verschueren & Marcoen, 1995; but see Roberto & Stroes, 1992: See also Hill & Hurtado, 1996, regarding grandmother presence and grandchild survival). These authors generally interpret the observed sequence as a consequence of close mother-daughter ties rather than of uncertain genetic links. Based only on sociological concepts of "affinity, opportunity structure, and functional exchange", for example, Silverstein, Bengtson and Lawton (1997) predicted that adults would be closer to their mothers than to their fathers, and that women would be closer to their parents, especially their mothers, than would men; their findings were consistent with the first prediction, and women were indeed closer to their mothers than were men, but adults of both sexes were equally close to their fathers. Regardless of the interpretation, the phenomenon of matrilineal bias in contact, investment and affection is clearly robust in the modern West.

In strongly patrilocal societies, it cannot be the case that children have more contact with maternal than with paternal grandparents, since only the latter are accessible. Indeed, Pashos (2000) has reported greater closeness of paternal than maternal grandparents among patrilocal Greeks. Nevertheless, even in some patrilocal societies, kin from the mother's side may exceed kin from the father's side in solicitousness. Among the hunter-gatherer Hadza of Tanzania, for example, Hawkes, O'Connell and Blurton Jones (1997) report that the presence of elderly maternal kin positively affects children's nutrition. Similarly, in a natural-fertility, natural-mortality society (*i.e.*, one in which contraception, abortion, and modern medicine in general are not practiced) in rural Gambia, which was patrilocal but in which maternal relatives lived in a relatively-easily accessible neighbouring village, Sear, Mace and McGregor (2000) report that the only class of relatives other than the mother whose existence had a positive effect on the nutritional status of children was the maternal grandmother. Sear *et al.* (2002) additionally found that having living mothers, maternal grandmothers, and elder sisters were all associated with significant elevations of children's height, weight and survival, whereas there were no such positive impacts of living fathers, grandfathers, paternal grandmothers, or elder brothers.

In patrilocal societies inaccessible to maternal relatives (and long-time friends), then, in-laws' contributions/withholding of harm-doing to their daughters-in-law and the children of their daughters-in-law might be a very strong selection pressure on these individuals. For a modern U.S. example, see Puri, Adams, Ivey and Natchtigall (2011): a survey of Indian immigrant women, most of whom lived with or close to their in-laws (according to custom), as to why they were pursuing fetal sex determination. In this study, the main reasons for son-preference were that daughters would marry into another family and leave, and that daughters might be unchaste. Such preference was cited as enforced particularly by women's female in-laws, and more enforced where in-laws were geographically proximate. Note that this study canvassed the literature on abuse of women perpetrated with involvement of "extended family members", mentioning the involvement of in-laws, only, in such violence among the women in the study.

Recruiting investment from paternal kin

If, as the evidence reviewed above suggests, contributions from maternal relatives

toward a child's well-being are more dependable than contributions from paternal relatives, might patrilineal surnaming be interpreted as a tactic for recruiting paternal involvement and investment? Investment by paternal grandparents may increase when grandchildren carry their surname, and this could explain why even the parents of brides are likely to approve of their daughters changing their names at marriage, a fact that might otherwise be deemed puzzling. The importance of such effects is likely to vary in relation to inheritance practices, and to be especially strong where (wealthy) parents leave more resources to sons than to daughters (Smith, Kish, & Crawford, 1987; see also Chagnon, 1979, and Dickemann, 1979).

Women need not consciously 'know' that they can rely most strongly on their mothers' assistance, less on that of their fathers and mothers-in-law, and least on their fathers-in-law. The proximal reason for women's acting in accordance with such rules may simply be, for example, an evolved tendency for greater closeness between females (and, thus between mothers and daughters, but also between mothers-in-law and daughters-in-law) and between people who know each other longer and/or are related. Based on feelings of closeness alone, a bride may 'know' that the grandparent least willing to help her children will be the paternal grandfather, and that by surnaming these children after their father-in-law, investment prospects will be improved. The quality of the relationship between daughter(-in-law) and parents(-in-law) has been shown to be positively related to the amount and frequency of grandparental involvement with grandchildren (Cherlin & Furstenberg, 1986).

Besides possible effects of surnaming on other paternal kin, there is evidence that fathers themselves care how their children are named. Besides the enormous prevalence of children actually receiving their fathers' surnames over those of their mothers (Johnson & Scheuble, 2002), Cherlin (1978) found in a non-random survey of American couples who used different surnames and who had a new baby or were expecting one, that these couples often gave their child only the father's surname. Cherlin explained the phenomenon as follows: "In most cases, [the mothers] say they didn't care enough to buck their husbands' strong feelings about using their names" (p. 150). That acceding to husbands' preferences in this regard actually influences their commitment and investment is harder to prove, but there is some evidence suggesting that it may. Furstenberg and Talvitie (1980) found that the giving of the father's first or middle name to children of unmarried, young, African-

American women was associated with increased paternal contact and resource allocation. Of course, the possibility that mothers named children after those fathers who were already more likely to have greater contact with and allocate more resources to their children, cannot be ruled out.

A shared name may affect helping tendencies and feelings of closeness, even where there is no other indication of relatedness. In a study of differential low-cost helping, Oates and Wilson (2002) found that people were most likely to help strangers who shared their first and last names (12.3%), and least likely to help those who shared neither (2.0%), with help toward those who shared one name intermediate; for less common names, the impact of a shared surname was significantly greater than that of a shared first name. The authors suggest that “the effectiveness of nominal kinship cues in eliciting [help]... emerged from functionally nepotistic feelings towards a stranger who might have ancestors in common” (p. 108). Perhaps paternal surnamesaking influences some, especially those on the child’s father’s side of the family, to attribute paternity of the surnamesake to his or her putative father, and therefore infer relatedness to themselves, in a greater set of circumstances than would otherwise be the case. It is certainly the case that patrilineal names enhance the salience of paternal relatives such that strictly paternal ancestors are the ones most likely to be named when people recount their “family origins”. According to Schneider and Cottrell (1975), despite the fact that U.S. men actually see their mothers’ relatives more often than their fathers’ relatives, they are nevertheless able to name more distant relatives from their father’s side of the family than from their mother’s side. These authors also reported that “...there is a tendency for distant kin to be linked more through father’s father than father’s mother on the father’s side for both male and female informants...” (at p. 76). Perhaps this is due to a shared family name.

Apostolou (2007a), citing Trivers' (1972) parental investment theory, describes the parents of an unmarried female offspring as "in possession of a valuable resource that they can manipulate to their own advantage". Ancestrally, with patrilocality, in which a bride may know no one in her new community, her in-laws may have found themselves in a powerful and analogous position with respect to her reproductive potential. Patrilocality was apparently practiced in one of our pre-*Homo sapiens* ancestors (Kumar *et al.*, 2006). Apostolou (2007b, 2008b) has also found evidence in the modern West for parents valuing

more greatly "chastity" in a daughter-in-law compared with a son-in-law: This finding is consistent with parents-in-law having an interest in not being 'grand-cuckolded' (*i.e.*, provisioning a putative grandchild they believe is their genetic relative but who actually is not) by their daughters-in-law. The extent to which a wife may be watched or controlled by her parents-in-law is logically related to her level of support from them. Thus, a bride considering surname change and, in general, greater versus lesser involvement with her in-laws, may face a trade-off, as discussed. That trade-off, is between the value of in-law support to her and the value to her of the additional personal freedom associated with lesser in-law scrutiny and control. Brides who have lesser need for in-law support due to their own wealth may less often choose to sacrifice their surnames at marriage, not only because it may be more professionally disadvantageous to them to do so, but also because anticipating not being as close to in-laws, there is less of a felt need on the part of brides to ingratiate themselves with their in-laws (by changing their surname to theirs).

As discussed, maternal relatives are more dependable as contributors to a child's well-being than paternal relatives. That being so, I hypothesized that patrilineal surnaming might be interpreted as a tactic for recruiting paternal familial involvement and investment. I therefore anticipated that a positive attitude toward surname change at marriage might reflect, in part, one's desire for in-law involvement in the lives of one's future children. To assess this and other hypotheses, as part of my Master's work I surveyed the "hopes, plans and attitudes" concerning marriage of female undergraduates because the great majority of American (and, presumably, Canadian) women do change their names at marriage and it is only among the highly educated that I was likely to find a substantial minority who would intend to retain their natal surnames instead (Golden & Shim, 2004). The survey data supported the above hypothesis: the women who endorsed surname change at marriage were those who most desired in-law involvement, whereas those who endorsed natal surname retention favoured in-law avoidance.

In that survey, undergraduate young women, none of whom were married and a minority of whom were in committed, romantic relationships, were asked their marital surname change attitudes (DV), and their attitudes toward (a) avoiding versus (b) not avoiding and obtaining resources from, future in-laws. Only in-law avoidance motivation was predictive of the DV, under regression including it and every other predictor of surname

retention from the literature that I could obtain on these participants, and which was a univariate predictor of the DV (adjusted R -squared = .56). Of course, given the limited number of survey participants and their youth, this result must not be viewed as necessarily generalizable.

Another predictor one might expect to be correlated with attitudes toward in-laws and the degree to which their involvement with grandchildren is desired is the number of children the respondent wishes to have. The number of children desired, however, was not significantly correlated with the in-law avoidance index in the survey I completed as part of my Master's degree, nor was it a significant predictor of attitudes to surname retention in either the bivariate or the multiple regression analyses. The number of children desired ranged from 0 to 6, which should have afforded sufficient variability to detect any meaningful correlation. Again, however, the limited sample size used may have rendered this result unreplicable.

The above considerations suggest several hypotheses. Women may be relatively inclined to retain their birth names at marriage if they desire fewer children and/or to the extent their number of future children expectable is relatively limited by their age, and thus do not need (as much) husband and in-law support of them. Moreover, their inclination to change their name to that of their husband may be greatest when they are motivated to develop a strong relationship with their in-laws.

I designed studies in this thesis intended primarily to assess differences in rates of women's marital surname change as well as general attitude thereto, due to the predictors of (1) bride's age, (2) bride's income, (3) groom's income, (4) bride's residence jurisdiction's (*i.e.*, Canadian province's or U.S. state's) (i) median full-time and salaried male and female incomes, and (ii) between-household Gini coefficient ⁶ (as well as related and other predictors). My above-noted survey of young, single women's attitudes to their future in-laws, as well as their own (future) income and the importance they place on high resource potential in mates, described above, I nearly replicated on actual Canadian brides-to-be Study 3). This near-replicated survey contained the additions of (1) questions asking and analyses concerning (i) what is the race/ethnicity of each member of the couple, and (ii) whether the

⁶ An assay of income inequality within a population (Gini, 1997).

participant sees herself as racially/ethnically dissimilar to her fiancé(e)⁷, and (2) an item measuring female-female competition for husbands.

Clearly, marital surname change or hyphenation/retention by a bride is behaviour performed in the presence of her groom, likely her natal family and in-laws, and, at least after her wedding, her entire community. It is thus, clearly, social behaviour. To the extent all such behaviour is the proper study of social psychology, therefore, women's marital surname decisions fall within the purview of social psychology. Although social psychology may tend to focus on attitude measurement (performed in Study 3, only, of this thesis), a widely-accepted definition of the field from Allport includes behaviour as influenced by others' presence (Jones, 1998). Thus, analyses of archival data on actual, social behaviour (Studies 1 and 2), also fall within the purview of social psychology.

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⁷ An addition proposed by Dr. Katherine Aumer, Hawai'i Pacific University.

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Chapter 2

Study 1: Women's marital surname retention or hyphenation, by bride's age and jurisdiction of residence: Data from all 2010 marriages in Hawai'i¹

INTRODUCTION

Hawai'i, uniquely among U.S. states or Canadian provinces, requires that brides record whether they will retain their premarital surnames, change to those of their grooms, or hyphenate the two names (Cherlin, 1978). About 10% of brides marrying in Hawai'i in 1978 recorded their intention to either retain or hyphenate (Cherlin, 1978): in 2006, it was 16.7% (11.7% retaining and 5.1% hyphenating: MacEacheron, 2011). Since bride age and jurisdiction of residence (*e.g.*, state) is also recorded in marriage registration documents, a unique research opportunity is afforded. Together, these data allow for testing of hypotheses concerning women's marital surname choice in relationship with their age and state of residence.

A survey of 929 U.S. married individuals and 180 of their married adult offspring, which was purportedly representative of married individuals in that country, prevalence of women's marital surname change varied by region. The women most likely to retain premarital surname were those in the South, followed by those in the West, then Northeast, and finally North Central regions (Johnson & Scheuble, 1995; note: the usually-Southern custom of retention of birth surname as a middle name was counted as surname retention). Based on this, how likely it is that a bride in the current dataset will change her surname to that of her husband is partly predictable by the state in which she is resident. Intuitively at least, it is also possible that income and professional considerations may systematically predict marital surname choice (and see above review of the literature). There is variability in the economic inequality between women and men, between states²: this, in turn, could be

¹ Raw data regarding all 23,927 weddings performed in 2010 in Hawai'i were provided by Brian Y. Horiuchi, Hawai'i State Department of Health.

² ~~State Personal Income 2006, IPUMS~~ 1% sample, US Bureau of Economic Analysis 2008; University of Minnesota, IPUMS.org.

related to marital surname choice. U.S. residents not resident in Hawai'i but who marry in Hawai'i are all likely affluent, but typical income in one's home state may still affect one's surname choices, to the extent same is influenced by local culture. U.S. women's families traditionally pay for these women's weddings (Lenderman, c2000): should women hailing from states of varying affluence possess different attitudes, this may be in part due to these women's families' wealth levels.

Alternately and speculatively, destination brides may be a 'breed apart' from other brides, with respect to marital surname change (*i.e.*, their superficial resemblance to traditional 'elopers' may not be so superficial). This hypothesis is advanced and explored to an extent, using these data. More specifically, the proportion of them hyphenating or keeping surname at marriage is not advanced as generalizable to the general U.S. population or even to U.S. women working full-time or in salaried positions, despite the focal regression used satisfying statistical requirements for generalizability (Field, 2005).³ Why not? Destination brides may disproportionately, as a group, be funding or helping to fund, without parent or parent-in-law support, their weddings, despite this being non-normative (Lenderman, c2000): if parents were paying, they would seem to be more likely to insist on a wedding that would benefit them, too – one to which, for example, their own business associates and friends, plus those more distantly related to the couple but closely related to their parents (*e.g.*, parents' own parents or siblings) could reasonably be invited. Thus, destination brides would seem likely on average to be wealthier than other brides. It may be the case that only wealthier brides have the choice to not 'get in good' with in-laws, in general-- they will never need their resources/live to live with or near them. For this reason, a disproportionate amount of them may feel less compunction compared with other brides to impress or 'get in good' with them, by having an in-law friendly wedding, or by changing surname to that of their groom's patrician.

³ All statistical requirements for generalizability of the regression were met when the data from the six greatest outlier states in terms of women's surname retention/hyphenation rate (plus that of Hawai'i) were removed from the regression: once that was done, the correlation between state female median full-time and salaried income and percentage brides hyphenating or keeping surname, remained high and positive (becoming $r = .882, p < .000$). Similarly removing the six greatest outlier states' data on the same variable, from the correlation of male median full-time or salaried income with that variable, resulted in that correlation changing to $r = .53, p < .001$.

The data I analyzed regarding surname choices of females getting married in the state of Hawai'i in 2010 were provided to me by Brian Horiuchi, Hawai'i Department of Health. Other than the age data, data were in aggregate form by state, so correlations can only be computed for variables at the state-level. I first look at the association between brides retaining/hyphenating surname and the median income of full-time and salaried women and men by state, from states from which at least 20 brides married in Hawai'i in 2010. I hypothesize that the *proportion of women choosing surname retaining/hyphenating at marriage will be positively predicted by state-level income of the sub-set of women most likely to get married as destination brides: those employed full-time or in salaried positions. I further predict that the predictiveness of this women's income estimate will exceed that of the analogous state-level estimate of men's income.* It is possible to infer that, should such retention/hyphenation of surname be predicted by women's income more so than by men's, that where brides choose one of these two options they may possess financial independence from their grooms.

Data from all women (whether from a U.S. state from which at least 20 brides hailed or not) marrying in Hawai'i in 2010 were also analyzed by age category, allowing for testing of the hypothesis that *older brides will be more likely to retain/hyphenate surname upon marriage.* MacEacheron (2011), with analogous (*i.e.*, also representing all the marriages in Hawai'i) data from 2006, found strong support for older brides being more likely to retain their premarital surname ($\chi^2_{(1)}$ for linear trend= 399.60, $p < .0001$, $N = 28680$: all 2006 marriages in Hawai'i). Other studies of marital surname retention have also found this pattern (Noack & Wiik 2008; Johnson & Scheuble, 1995; Goldin & Shim, 2004; Hoffnung, 2006; and see Scheuble & Johnson, 1993, 2005).

In the field of evolutionary psychology, a very popular if not the standard assay of income inequality within a population, is its Gini coefficient (Gini, 1997). This value may be graphically represented. Cumulative Share of Income Earned (Y-axis) is plotted against Cumulative Share of People from Lowest to Highest Incomes (X-axis). The "Line of Equality", representing every individual having equal income, is entered on the graph. This straight line is drawn at a 45 degree angle to the X-axis, from the position representing the least-wealthy person on the X-axis to that representing the most-wealthy person. (The most wealthy person is only represented at the extreme right of the graph.) The Lorenz curve is

then plotted: it represents, for each X-axis value of share of people at a given point of income relative to the others in the population, their combined share of the population's total income. If income is equal for all in the population, the Lorenz curve will exactly trace the Line of Equality. The area between these two lines is the Gini coefficient.

METHODS

Data Description

Numbers of brides choosing each of the four surname options (change surname to that of groom, keep premarital surname, "Combination" (*i.e.*, usually, hyphenation of bride's premarital surname with that of groom (personal communication, B. Y. Horiuchi, January 2013), or other), were provided according to age categories, and residence jurisdiction (but not both indicators at once). Numbers were only provided by state, as long as at least 20 women resident in that jurisdiction were married in 2010 in Hawai'i. Accordingly, 47 states' data (out of 50) were included.

Median men's and women's 2010 full-time and salaried workers' earnings by state were obtained from the U.S. Department of Labor (2012). State-level average and median 2010 annual incomes of females and males over 17 years of age were computed using the State Personal Income 2010, IPUMS 1% sample of the U.S. census (Ruggles *et al.*, 2010).

Statistical analysis

Consistent with practice in all research reviewed, the number of brides who kept their premarital surnames or hyphenated were taken together, and contrasted with the number who changed to husbands' surnames. Chi-square analyses are as described, below. Chi-square for linear trend was also employed to determine whether the proportion of brides retaining/hyphenating surname increased significantly as brides' age category increased (using StatsDirect software, http://www.statsdirect.com/help/chi_square_tests/2k.htm; all other statistics performed using SPSS 18.0 or higher).

Proportion retaining or hyphenating (hereinafter, "retaining") name from the 47 residential states with at least 20 brides marrying in 2010 in Hawai'i, were correlated with the percent retaining or hyphenating their surname and with state median full-time or salaried income of women and men. OLS regressions were also performed, as described below.

RESULTS

19.23% of *all* brides marrying in Hawai'i in 2010 either retained (12.60%) or hyphenated (6.62%) their premarital surnames. This figure is estimated to be less than 10% among U.S. brides in general (see, *e.g.*, Goldin & Shim, 2004): the difference is significant ($t_{(45)} = 6.14, p < .0001$). The older the bride in the Hawai'i 2010 dataset, the more likely she was to retain or hyphenate her premarital surname (Table 2.1 and Figure 2.1: $\chi^2_{(1)}$ for linear trend = 1754.65, $p < .0001$; $\chi^2_{(6)}$ total = 3032.30, $p < .0001$).

Table 2.1: Percentage of Brides Changing, Hyphenating (or otherwise combining), or Keeping Last Name at Marriage in Hawai'i in 2010, according to the Bride's Age (23,927 records)

<i>Age</i>	<i>Changed</i>	<i>Hyphenated (Combined)</i>	<i>Kept</i>	<i>Other</i>	<i>Total</i>
< 20	525 (84.95%)	31 (5.02%)	62 (10.03%)	0	618
20-24	3038 (85.48%)	158 (4.44%)	356 (10.02%)	2	3554
25-29	5396 (84.44%)	373 (5.84%)	605 (9.47%)	16	6390
30-34	3898 (78.80%)	372 (7.52%)	670 (13.54%)	7	4947
35-39	2296 (77.62%)	229 (7.74%)	427 (14.44%)	6	2958
40-44	1442 (77.61%)	157 (8.45%)	248 (13.35%)	11	1858
45+	2675 (74.26%)	266 (7.38%)	648 (17.99%)	13	3602
TOTAL	19270 (80.54%)	1586 (6.63%)	3016 (12.60%)	55	23927

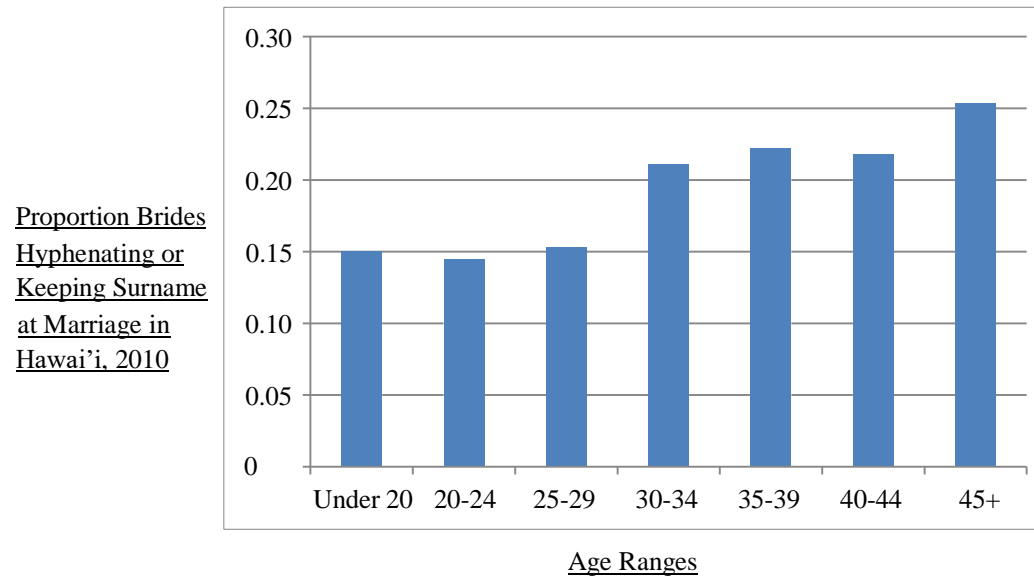


Fig. 2.1. Brides' age range by number and percentage of brides hyphenating or keeping last name at marriage in Hawai'i, all marriages of brides of U.S. residency, calendar year 2010 ($N = 19,270$)

Substantial variation existed in surname choices (see above Table).

The observed state variation was not in accord with regional differences as reported by Johnson and Scheubel (1995), but was significantly related to state median full-time and salaried income for women ("Women's Income": $r = .78$, $N = 45$, $p < .0001$) and men ($r = .62$, $N = 45$, $p < .05$) for the same year. An OLS regression of both men's and women's state (other than Hawai'i itself) median full-time/salaried income on percent women by state retaining or hyphenating premarital surname, yielded only the latter as significant (regression $F_{(2,43)} = 33.72$, $p < .000$; betas of $-.171$, ns , and $.927$, $p < .000$, for men and women respectively; adjusted- $R^2 = .593$ -- medium to strong effect size: Ferguson, 2009). Neither the difference between men's and women's median full-time/salaried incomes by state, nor the former value divided by the latter, were significantly associated with women's surname choice.

Possibility of skewing of results due to data from states with lower number of women represented:

Number of women by state keeping/hyphenating surname at marriage by state, when added as a predictor, was not significant, and the resultant regression had no higher adjusted-

R^2 value. This constitutes some evidence against the possibility that a state with few brides skewed the results.

Discriminant Analysis:

In all analyses that follow, $N = 46$ (number of states the data of which was used). Data was available for 47 states, including Hawai'i itself. Given that the hypotheses regard destination brides, though analyses were run both with and without the datum from Hawai'i (results available on request from the author), those pertaining to the remaining 46 states, only, are presented here, except where explicitly stated. (These exceptions occur where it was deemed illustrative to either include Hawai'i or contrast results of analyses run on data therefrom as well as from the other states, with data just from the other states.)

Women's state-level average and median income:

Women's and men's state-level *average* income (as used in MacEacheron, 2011) for 2010 was strongly correlated with state rate of brides either retaining or hyphenating their birth surnames ($r = .76, p < .000$ and $r = .67, p < .000$, respectively). When, however, either was used as sole co-predictor with women's full-time/salaried state *median* income in OLS regression, the average income predictor was not statistically-significant ($p > .05$), while the other predictor was highly significant (for the regression using the women's income indicator, $\beta_{\text{Women's Median Full-Time/Salaried Income}} = .541, p = .041, \beta_{\text{Women's Average Income}} = .254, ns, \text{adjusted-}R^2 = .595$: for the regression using the men's income indicator, $\beta_{\text{Women's Median Full-Time/Salaried Income}} = .845, p < .000, \beta_{\text{Men's Average Income}} = -.077, ns, \text{adjusted-}R^2 = .587$). Women's and men's overall median income was also correlated ($r = .620, p < .000$, and $r = .473, p = .001$, respectively) with state rate of brides either retaining or hyphenating their birth surnames: again, when similarly used in OLS regression as predictors alongside just median women's *full-time/salaried* income by state, however, each was not statistically-significant (for the regression using the women's income indicator, $\beta_{\text{Women's Median Full-Time/Salaried Income}} = .911, p < .000, \beta_{\text{Women's Median Income}} = -.157, ns, \text{adjusted-}R^2 = .593$: for the regression using the men's income indicator, $\beta_{\text{Women's Median Full-Time/Salaried Income}} = .943, p < .000, \beta_{\text{Men's Median Income}} = -.224, ns, \text{adjusted-}R^2 = .609$).

Gini:

Gini was included as a control variable, based on my observation from data from MacEacheron (2011) that states in which inequality was higher, were also ones in which average income was lower. I made no *a priori* prediction as to its predictiveness. In the Gini-related analyses, female by-state median full-time/salaried income (a weekly value: average was \$653) was linearly transformed into income in hundreds of dollars (*i.e.*, divided by 100), in order to make this value and Gini (which ranges from 0 to 1: average was .45), as well as the outcome variable (a proportion), more comparable in magnitude. This, in turn, was done in order to make standardized beta values better interpretable. Both the income variable and Gini, as well as their interaction, were also centred.

Premarital surname retention/hyphenation rate by state significantly correlated with 2009 state Gini (data from U.S. Census Bureau: $r = .335$, $p = .023$). When it and state women's median full-time/salaried income are entered as predictors in OLS regression of brides' premarital surname retention or hyphenation by state, this co-predictor, uniquely (compared with any other regression co-predictor tried) remains significant ($\beta_{\text{Women's Median Full-Time/Salaried Income}} = .741$, $p < .000$; $\beta_{\text{Gini}} = .203$; $p = .033$, adjusted- $R^2 = .627$). When, however, these two predictors plus their interaction are entered into a similar regression, Gini drops out as a predictor, leaving the income predictor as highly significant, and the interaction term as significant:

Table 2.2: OLS Regression, DV=Percentage women keeping/hyphenating surname

Predictor:	Beta:	<i>p</i> :
Gini	.151	.107
Women's Median FT and Salaried Income	.669	.000
Gini X Women's Median FT and Salaried Inc	.215	.034

Note: adjusted- $R^2 = .658$ (strong effect size: Ferguson, 2009)

Given that the interaction term beta is .215, note that one increment of such term results in that number of standard deviations (positive) change in the DV.

I assessed whether higher women's median full-time/salaried income predicted premarital surname retention or hyphenation *only* where state equality was low (therefore, Gini high). To do this, I calculated predicted values (± 1 S.D.) and used them in an OLS

regression similar to that just above. In both of these regressions, the interaction was significant. For the interaction term of *high* (+1 S.D.) women's median full-time/salaried income with Gini: $\beta_{\text{Gini}} = .343, p = .003$; $\beta_{\text{Women's Median Full-time/Salaried Income}} = .669, p < .000$; $\beta_{\text{Interaction}} = .241, p = .034$; adjusted- $R^2 = .658$. For the interaction term of *low* (-1 S.D.) women's median full-time/salaried income with Gini: $\beta_{\text{Gini}} = -.041, ns$; $\beta_{\text{Women's Median Full-time/Salaried Income}} = .669, p < .000$; $\beta_{\text{Interaction}} = .328, p = .034$; adjusted- $R^2 = .658$. This interaction is depicted in the graph, below:

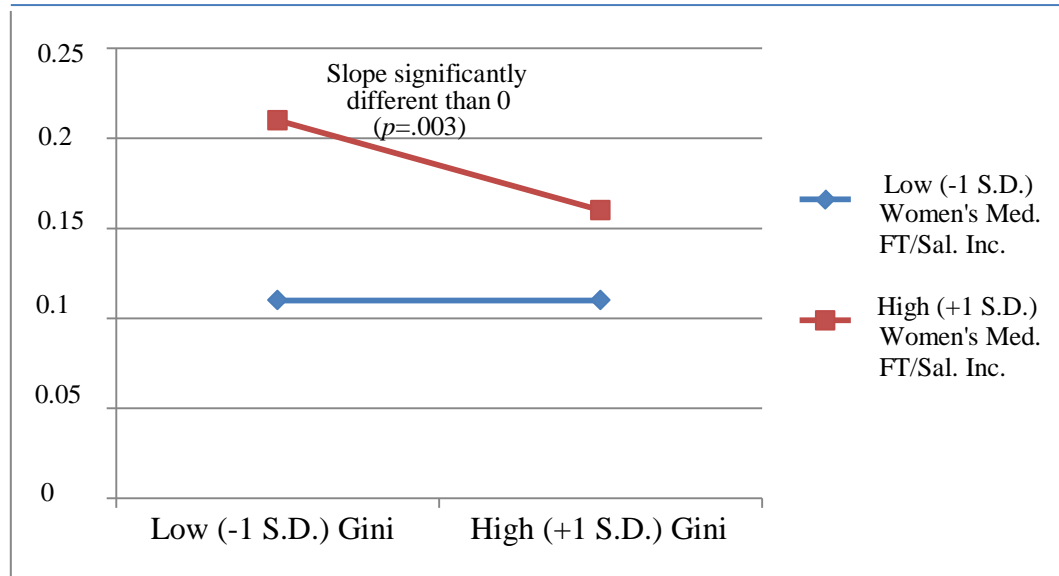


Fig. 2.2. Higher women's median full-time/salaried income predicted state proportion of premarital surname retention or hyphenation only where state Gini high

Other potential predictors:

Given that the interaction of state-level Gini with state-level women's full-time and salaried women's income, I assessed various control predictors which logically might be associated with Gini, which I will now discuss. Note that I made no *a priori* decision to include any, nor did I necessarily have predictions, after deciding to include them, as to the direction of these potential predictors' predictiveness. Women's rate of retaining or hyphenating their premarital surnames by state was not significantly correlated with state (1) parasite stress (data from Fincher & Thornhill, 2012), (2) collectivism/individualism (data from Vandello & Cohen, 1999), (3)(a) average 2010 single family home price (data from U.S. Census Bureau), or (b) this amount divided by women's median full-time/salaried income by state, (4) 2007 proportion of population attaining high school or greater (data from U.S. Department of Labor), or (5)(a) men's or (b) women's 2010 unemployment rates (data from U.S. Department of Labor).

Women's rate of retaining or hyphenating their premarital surnames by state was significantly correlated with (i) 2007 state proportion attaining a BA or greater (data from U.S. Department of Labor: $r = .729, p < .000$), and (ii)(a) 2010 (January-June) state support for Republican party (data from Gallup (Newport, 2010), 2011: $r = -.556, p < .000$), as well as (b) "Democrat advantage" (*i.e.*, percentage supporting Democrat party or "leaning Democrat" minus percentage supporting Republican party or "leaning Republican": $r = .536, p < .000$). When (i) and (ii) (a) and (b), however, were each (separately) used as predictors alongside only women's median full-time/salaried income under OLS regression, (i) and (ii) (a) and (b) were not significant as predictors and women's median full-time/salaried income was highly significant. (For 2007 state proportion attaining a BA or greater: $\beta = .225, ns$; $\beta_{\text{Women's Median Full-Time/Salaried Income}} = .582, p = .004$; adjusted- $R^2 = .599$. For 'Republicanism': $\beta = -.199, p = .075$ (marginal); $\beta_{\text{Women's Median Full-Time/Salaried Income}} = .671, p < .000$; adjusted- $R^2 = .615$. For 'Democrat advantage': $\beta = .187, p = .090$ (marginal); $\beta_{\text{Women's Median Full-Time/Salaried Income}} = .681, p < .000$; adjusted- $R^2 = .613$).

Table 2.3: Proportion of Destination Brides Changing, Hyphenating, or Keeping Last Name at Marriage in Hawai'i in 2010 According to Bride's State of Residence

<i>State</i>	<i>Changed</i>	<i>Kept</i>	<i>Hyphenated</i>	<i>Other</i>	<i>Total</i>	<i>Proportion Retain/ Hyphenate</i>	<i>Proportion Change</i>
Alabama	77	3	6	0	86	0.10	0.90
Alaska	175	21	15	0	211	0.17	0.83
Arizona	429	34	37	0	500	0.14	0.86
Arkansas	87	0	4	0	91	0.04	0.96
California	2586	448	251	3	3288	0.21	0.79
Colorado	307	44	23	0	374	0.18	0.82
Connecticut	56	10	5	0	71	0.21	0.79
Florida	244	42	20	1	307	0.20	0.79
Georgia	151	18	4	0	173	0.13	0.87
Idaho	109	9	6	1	125	0.12	0.87
Illinois	381	58	21	0	460	0.17	0.83
Indiana	161	9	8	0	178	0.10	0.90
Iowa	79	6	5	1	91	0.12	0.87
Kansas	110	10	9	0	129	0.15	0.85
Kentucky	99	5	3	0	107	0.07	0.92
Louisiana	88	5	3	0	96	0.08	0.92
Maine	18	2	1	0	21	0.14	0.86
Maryland	91	17	7	0	115	0.21	0.79
Massachusetts	104	40	7	2	153	0.31	0.68
Michigan	213	23	12	1	249	0.14	0.86
Minnesota	195	26	13	0	234	0.17	0.83
Mississippi	30	1	2	0	33	0.09	0.91
Missouri	165	21	10	0	196	0.16	0.84
Montana	55	7	4	0	66	0.17	0.83

Nebraska	56	2	1	0	59	0.05	0.95
Nevada	258	17	22	0	297	0.13	0.87
New Hampshire	28	5	1	0	34	0.18	0.82
New Jersey	109	26	8	0	143	0.24	0.76
New Mexico	80	13	4	0	97	0.18	0.82
New York	223	69	40	1	333	0.33	0.67
North Carolina	139	12	7	0	158	0.12	0.88
North Dakota	28	5	0	0	33	0.15	0.85
Ohio	288	28	16	0	332	0.13	0.87
Oklahoma	137	6	10	0	153	0.10	0.90
Oregon	464	54	23	1	542	0.14	0.86
Pennsylvania	234	34	11	0	279	0.16	0.84
South Carolina	62	7	4	0	73	0.15	0.85
South Dakota	29	1	3	0	33	0.12	0.88
Tennessee	151	8	10	0	169	0.11	0.89
Texas	820	80	41	0	941	0.13	0.87
Utah	185	12	10	0	207	0.11	0.89
Virginia	155	20	12	0	187	0.12	0.83
Washington	1050	141	76	5	1272	0.17	0.82
West Virginia	33	4	1	0	38	0.13	0.87
Wisconsin	144	20	14	1	179	0.19	0.80
Wyoming	32	3	1	0	36	0.11	0.89
TOTAL	10715	1426	791	17	12949	0.17	0.83

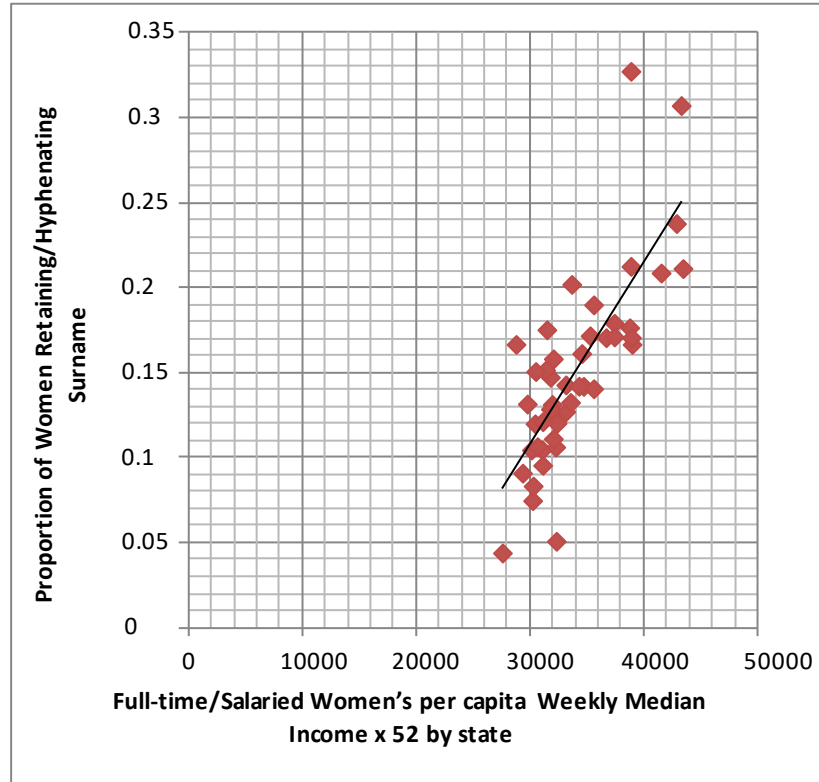


Fig. 2.3. Percentage of U.S. brides not resident in Hawai'i marrying in Hawai'i in 2010 who either hyphenated or kept their surnames is significantly correlated with median full-time/salaried personal income of women in 2010 in bride's state of residence ($r = .78, p < .0001, N = 46$ (states), number of brides = 12,949) Median full-time/salaried income of women ♦

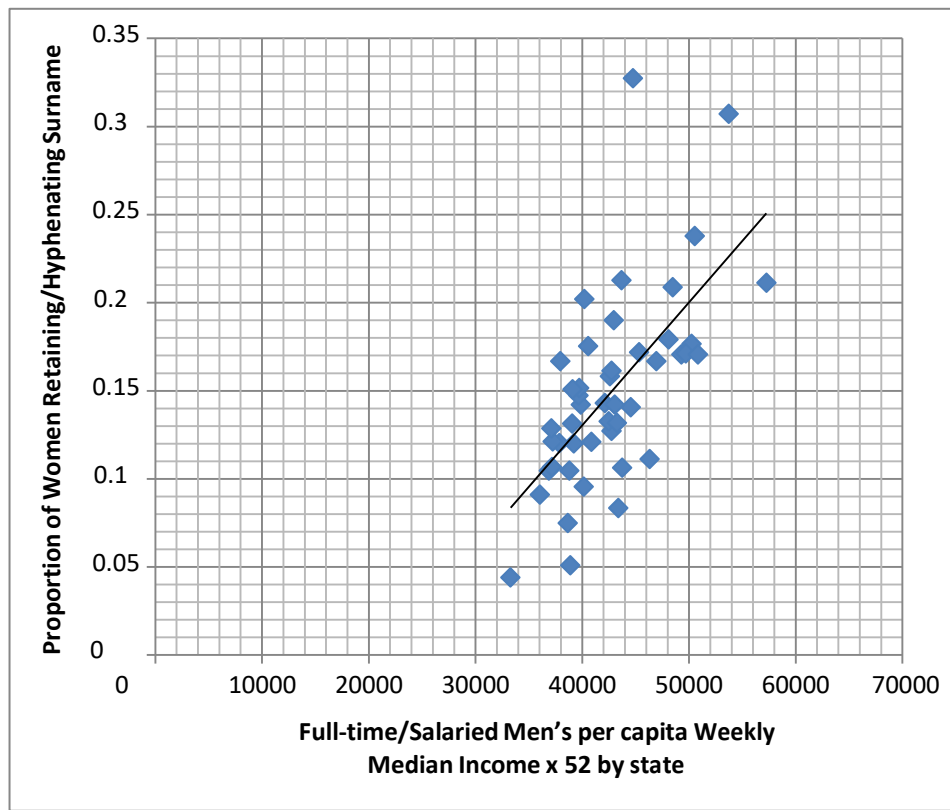


Fig. 2.4. Percentage of U.S. brides not resident in Hawai'i marrying in Hawai'i in 2010 who either hyphenated or kept their surnames is significantly correlated with median full-time/salaried personal income of men in 2010 in bride's state of residence ($r = .64, p < .0001, N = 46$ (states), number of brides = 12,949) Median full-time/salaried income of men ♦

The results can be summarized as follows. Hyphenating or keeping their premarital surnames for U.S. destination brides marrying in Hawai'i in 2010 was highly and significantly correlated with median full-time and salaried women's income by bride's state of residence ("Median Women's Income": $r = .78, p < .000$) and by the analogous statistic for men by bride's state of residence ($r = .64, p < .000$). Median Women's Income, only, remained significant under OLS regression of both predictors. The interaction of state Gini and Median Women's Income, in an OLS regression with these plus state Gini alone, as predictors, was also found to be positively predictive: none of several other potential predictors suggested by previous research or related to Gini or to Women's Median Income were significant predictors alongside Women's Median Income. The older the bride, from any jurisdiction, marrying in Hawai'i in 2010, the more likely she was to hyphenate or keep her premarital surname ($\chi^2_{(1)}$ for linear trend = 1754.65, $p < .000$).

DISCUSSION

Hyphenation/retention was greater with greater full-time/salaried women's median income in bride's state of residence. In states in which women earn well, there may be less of

an incentive for a well-earning woman to give up the earning power associated with her own surname, as well as less incentive to make surname sacrifice in order to ‘get in good’ with husband and/or in-laws in the hopes of recruiting investment. This association was highly significant, and accounted for 60.30% of the variance when brides resident in Hawai’i were excluded (59.40% *with* brides whose jurisdiction of residence is Hawai’i). Why was women’s state-level *average* income for the relevant year not used (as in MacEacheron, 2011)? It was strongly correlated with state rate of non-Hawai’i brides marrying in Hawai’i either retaining or hyphenating their birth surnames, but when it was used as sole co-predictor with women’s full-time/salaried state *median* income in OLS regression, the average income predictor was no longer statistically-significant ($p > .05$). It is proposed that this is due to destination brides’ incomes being better represented by state medians for women employed full-time or salaried, than by women’s state averages, due to destination brides to Hawai’i likely being wealthier than average/more likely to be employed full-time or in salaried positions.

Women undergoing a destination wedding in Hawai’i would seem to need to be wealthy irrespective of the location of their home jurisdiction, given the great distance of (and therefore high cost of travel to) Hawai’i from almost anywhere else in the world. Thus, women’s median full-time and salaried income appeared to me to be a good predictor of their incomes. It would be interesting to see whether the particular incomes of brides of other income levels are similarly predictive of their rate of retention/hyphenation. If that was found, it would constitute stronger evidence of bride’s income’s predictiveness of such rate. Based on the current study’s data, it may be conservatively surmised that, for presumably wealthy women, only, is bridal income predictive of (state-level) rate of hyphenation/retention. Whether such (individual) income is predictive or not will be tested in Study 2. If income is indeed predictive only for wealthy women, my *post hoc* theoretical account of why women retain/hyphenate, based on the current study’s data, however, would be harmed. That is so, as this theoretical account, though it does not envision an absolute income threshold under which retention/hyphenation would not occur, does anticipate that income level locally available to women (and the interaction of this value with local Gini) predict the practice.

As noted, brides who kept their premarital surnames or hyphenated were counted together, and the (combined) rate of these practices was contrasted with the rate of brides undergoing marital surname change, Also as noted, such sorting practice is consistent with

that found elsewhere in the literature, and therefore allows for easier comparisons of the results of the present study with these others'. Another advantage of such practice, over separately comparing rate of hyphenation and rate of retention with rate of change, is that it may be anticipated that the number either hyphenating or number retaining may be too low, separately, to allow for adequately-powered statistical comparisons of each such group of brides, with the other(s). Thus, though hyphenation was suggested by one Committee member to be a potential "midpoint" between changing and retaining, and thus interesting to study as a separate category, such division of the data was deemed unworkable.

Urban brides may have been disproportionately represented in the data (from U.S. destination brides), since the two states from which the most brides hailed, New York and California, are home to the U.S.'s two largest cities (New York City and Los Angeles). Note that the former of these states also was that from which, on average, brides retained or hyphenated their premarital surnames the most (excepting Hawai'i itself).

Also a strong finding was that the older the bride, the more likely she was to retain or hyphenate her premarital surname (in 2006 the analogous statistic, based however only on 12 states' data, was $\chi^2_{(1)} = 399.60, p < .0001$: MacEacheron, 2011). I had hypothesized that the older the bride, the more likely she would be to retain surname. There was, indeed, a significant linear such linear trend with increasing age. This conceptually replicated findings elsewhere (see generally Goldin & Shim, 2004; Hoffnung, 2006; Johnson & Scheuble, 1995; see also Scheuble & Johnson, 1993, 2005; Stafford & Kline, 1996).

Retention/hyphenation rate clearly increased with age, yet just over 60% of the variance was explained by state women's median full-time/salaried income ($r = .78, p < .000$) alone. What is the role of age here? For example, do states with higher median income for women, tend to have that status because brides therefrom are older when they marry (and therefore better able to earn)? The survey following (Study 3) involves age at marriage as a predictor and was intended, in part, to shed light on this question which is, however, open.

In general, some cross-validation of all results herein is afforded by their similarity to those of the analogous, 2006 Hawai'i data (MacEacheron, 2011). It is perhaps important to bear in mind that locally-marrying women (residents of Hawai'i) retained or hyphenated premarital surname significantly *more* frequently ($t_{(45)} = 4.89, p < .0001$), despite their state Women's Income being no different compared with that value for the other states ($t_{(45)} =$

0.42, $p = ns$). It would have, of course, been preferable to obtain women's marital surname change rates from not just Hawai'i destination brides, but such information is not collected in any other state, and no better, feasible source of data was available to the author's best knowledge (but see Study 3). As briefly discussed, Hawai'i may be a 'natural outlier' as regards women's marital surname change: this may even be partly due to the fact that women are there *asked* whether they are changing their name or not, at marriage.

Contrary to the findings of Hamilton, Geist and Powell (2011), neither Democrat/Republicanism nor collectivism/individualism were more than marginally-predictive in this data set, when (separately) used as a regression predictor alongside Women's Income. This may have been because, at root, the phenomenon is driven by a woman's resource level (proxying her ability to be independent). The question is, independent from whom? If from her husband, then difference between state median male and female full-time and salaried incomes (or male statistic divided by female statistic) might be predictive of marital surname retention/hyphenation: it is not (nor was it in the analogous 2006 data: MacEacheron, 2011). Intriguingly, the interaction, only (*i.e.*, not Gini alone, though it was included in the regression), of state Gini and Women's Income was positively predictive alongside Women's Income. Nothing else was. The graph of simple slopes (Figure 2.2, above) shows the general result, that only those states with high *general* equality as well as high women's median full-time and salaried income, relative to other states, had a significantly different (higher) level of surname retention/hyphenation.

This last result led me to hypothesize that in states with higher Gini, even where women who work have good incomes, women must compete more for husbands due to the greater 'threat' of female hypergamy (hypergyny) in these states, due to the relative dearth of wealthy men. Hypergyny is the "marrying up" of women to wealthier men: it is observed cross-culturally, even among wealthy women (*e.g.*, Townsend, 1998) while "hyperandry" is not. (Note that while the search term "hypergyny" produced at least one hit in 21 August 2014 searches of each of *PsycINFO* and the anthropology literature databases *Anthropology Plus* and *AnthroSource*, similar searches for "hyperandry" produced no hits.) One way that both poor and rich women can compete for husbands as well as get in good with future in-laws (in fact, a way in which poor women can compete better than can rich women, since the latter lose earning power via surname change), is to take the surname of the patrician--marital surname change. Thus, I propose that well-earning women in states with a greater

hypergyny 'threat' have to act so as to get in good with husband and in-laws, in order to attract wealthy husbands, more than do women in other states. Women in states with greater general equality needn't worry so much about poor women taking rich husbands, so they needn't get in good as much with such husbands and in-laws via taking their surnames (and suffer a professional cost for doing so). And women in states with lesser general equality but with poor earning prospects for women may need the patrician's and husband's financial support when they have children, and so may tend more to get in good with them via taking their surname-- also, such women don't take as much of an earnings hit by changing surname, since they never had great earning prospects anyway.

I seek to test this hypothesis (*i.e.*, that women are competing more for husbands and for in-law approval and resources, in jurisdictions in which Gini is greater, via marital surname change) in a subsequent study herein (Study 3). I asked brides-to-be across the Canadian provinces what their surname change/retention intention is, as well as their in-law attitudes, as I did in Study 1. In this study, I also added a measure of how much female-female husband competition the participants see as occurring around them. Then, my plan was, in addition to running the same statistical analyses I did for Study 1, to see whether household-to-household Gini in the bride-to-be's province was correlated with female-female competition for husbands as rated by brides-to-be in that province. Finally, my plan was to see whether both provincial Gini and provincial female-female competition for husbands positively predicted marital surname change intention (my prediction was that both would).

The amount of variance accounted for via the focal correlation (see Figure 2.3), 60.30%, as well as the greater predictiveness of bride's home state's women's median full-time and salaried income under competitive regression with many potential, alternate predictors, except the interaction of Gini and such income, is striking. Are the majority of the thousands of brides studied herein, all assessing their local median, women's earning potential, and local household income inequality (Gini), for example by accessing these data via the internet, and making a surnaming decision based on these? Not only does this seem implausible, but numerous studies assessing women's own reasons for such decision have never once included a measure approximating local women's income or local household-to-household income inequality (see literature review, Chapter 1). Instead, based on the results of this study, I speculate that the women studied may have been (1)

perceiving their own relative value compared with other females on the mating market in terms of resource accrual ability, and (2) local levels of resource-level inequality, at least somewhat accurately, and making unconscious 'economic' decisions based on these.

Wherever an apparent decision-making rule that may maximize fitness (like maximizing resourcing for self or one's children) is opaque to the decision-maker, yet fairly regularly followed, the operation of an evolved psychological process may be suspected. It may additionally be suspected where, as here, a strong sex difference in the behaviour at issue occurs, and the behaviour is intersexual (here dyadic, between bride and groom).

This research does not rule out alternate explanations, however, such as women consciously weighing their own anticipated earnings drop versus potential greater resourcing from husband/in-laws from name change, and making decisions based on this. Note that it is difficult to know how essentially correlational research could. And given that income and local Gini are not feasibly manipulatable variables, only correlational research into the effect of these on retention/hyphenation rate would seem feasible. Should the conscious mechanism just discussed prove to be the actual mechanism of the main result from this study, however, the finding itself is still novel, non-intuitive, and of large effect size.

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Chapter 3

Study 2: Archival Analysis of Women's Marital Surname Change Within 8 Months, 2013-2014, of Elgin County, Ontario Divorces

INTRODUCTION

I have reviewed the evidence that women persist in taking their husbands' names at marriage even given recent progress toward economic and social equality of the sexes, and even given the fact that the default and easier option is to retain natal surname. The persistence of marital name change demands explanation. It is my conjecture that a major piece of the puzzle resides in the fact that marriage is a special institution quite different from other economic and social partnerships. Marriage may be understood as fundamentally a reproductive union (Buckle, Gallup & Rodd, 1966): it is the context in which children are raised, notwithstanding the tremendous historical and cross-cultural variability in the expectations and practices associated with marriage (Murdock, 1949).

An interesting sex difference in the perception of women who retain their surnames was observed by Murray (1997): U.S. men, but not women, expressed the view that such women are less attractive and make worse mothers. As for women who hyphenate their birth surnames with those of their husbands, one study found that U.S. undergraduates perceived them as relatively "career oriented" with men scoring high on the "Hostile Sexism Scale" (Glick & Fiske, 1996) rating such women as relatively likely to violate sexual norms, including committing adultery (Stafford & Kline, 1996)—presumably, an act that can lead to divorce. A more recent study showed that, in contradiction, *women* rated women who retain their natal surnames *less* likely to "violate sexual norms" than those who simply take their husbands' names (Forbes, Adams-Curtis, White & Hamm, 2002). Finally, in a study of married, Catholic, U.S. women, any non-traditional marital surnaming practice was seen by some respondents as indicating intention to leave the marriage at some point, or self-centeredness (Suter, 2004). Based on these results, from the latest available research, there are beliefs of ties between, on the one hand, women's childbearing within marriage, career-focus (and therefore economic productivity), and activities that may lead to divorce, with marital surname change practice on the other hand. These inspire the current study.

If, as discussed elsewhere in this thesis, women's marital surname change to that of

the husband signals commitment (to any or all of the husband, society, and/or particular others such as in-laws), do the marriages of opposite-sex couples in which the women underwent such name change last longer? Are there a greater number of children of such marriages? If, as discussed elsewhere in this thesis, women's marital surname change effects a detriment to wives' earning power, do brides in different-sex couples who retain/hyphenate surname tend to go on to earn more money than other married women? As discussed elsewhere in this thesis, women's marital surname change may in part be an attempt to "get in good" with husbands (and in-laws) in order to better solicit resources from them. Such a prediction is indirectly testable, by assessing whether brides with greater financial incentive to solicit such resources, do so more often. Brides with greater such incentive, would include those marrying men with greater earning prospects and/or existing earning level. Thus, my final question: do divorcing husbands of wives who underwent the practice report greater income at time of separation than do other divorcing husbands? In the current study, generally speaking, wives who took husbands' surnames were compared with wives who did not, to assess whether the former were younger at marriage, had lesser income at time of separation (the only time at which such information is generally available from Canadian court files), and had more children and longer marriages. Such comparisons were deemed important, as potentially bolstering of contentions from elsewhere in this thesis (*i.e.*, regarding the underlying motivation for marital surname change or retention: maximization of post-marital resources for the wife and her future children if any, and signaling marital commitment and/or commitment to having children within the marriage). For example, if marital surname change effects an average income detriment to women, and is accompanied by greater marital duration, evidence would be obtained for the practice being a costly signal of marital commitment.

My hypotheses are as follows:

- (1) The marriages of opposite-sex couples in which the woman took the man's surname will be of greater duration.
- (2) There will be a greater number of children produced within opposite sex marriages in which the woman took the man's surname.
- (3) Wives who did not take their husband's surnames will report greater income than those who did.

- (4) Husbands the wives of whom took their surnames will report greater income than other husbands.
- (5) Wives who took their husbands' surname will be younger at date of marriage.

Characteristics of geographical area in which court divorce records were searched:

As noted, I hypothesize women who change surname may tend to be younger at marriage, have lower income, marry wealthier men, have more children, and have marriages of longer duration prior to any divorce, compared with women who retain or hyphenate premarital surname. To test these hypotheses, a sample of divorce files on opposite-sex marriages from the Elgin County, Ontario, Canada, Superior Courthouse was searched. This courthouse houses all court files for all divorces within the county. This county was chosen since it was the more accessible of the two made available to me to choose between for the purpose of my search by Maretta Miranda, Family Policy and Programs Branch, Court Services Division, Ministry of the Attorney General (Ontario). Approximately 180 divorces are finalized in this county annually (personal communication: Melissa Kirby, Supervisor of Court Operations, Elgin County Courthouse, 8 September 2014). Elgin County spans 1880.90 square kilometres (total population of 87,461 as of 2011: Statistics Canada, 2012a), and is comprised of the city of St. Thomas (population 37,905 as of 2011: Statistics Canada, 2011b), the Town of Aylmer (population 7,070: Town of Aylmer, 2015), and six smaller townships and municipalities.

Unless otherwise noted, all the following data concerning Elgin County's residents is current to 2011. Of its 70,755 residents aged 15 years or over, 44,185 are married or living with a common-law partner: of these, 38,035 are married and not separated, 2,230 are separated, and 3,750 are divorced (Statistics Canada, 2011a). Of the county's 86,240 residents who are either Canadian citizens or Permanent Residents (excluding institutional populations), 85.16% report English as their sole mother tongue, and 93.34% report that language as the one most often spoken at home (Statistics Canada, 2011a). Based on 85,870 residents providing data, 12.7% are immigrants to Canada (Statistics Canada, 2013). Based on 69,205 residents 15 years of age or over providing data, unemployment rate is 9.0%. The highest completed educational attainment of these 69,205 residents is 25.7% with less than high school; 30.0% high school or equivalent; 34.8% non-degree post-secondary education; and 9.5% bachelor's or higher degree (Statistics Canada, 2011a). Based on the 40,470

residents 15 years of age or over providing data, 10.7% work in “Management occupations”; 13.2% in “Business, finance and administration occupations”; 3.9% in “Natural and applied sciences and related occupations”; 7.6% in “Health occupations”; 9.4% in “Occupations in education, law and social, community and government services”; 1.5% in “Occupations in art, culture, recreation and sport”; 20.8% in “Sales and service occupations”; 19.0% in “Trades, transport and equipment operators and related occupations”; 3.9% in “Natural resources, agriculture and related production occupations”; and 10.0% in “Occupations in manufacturing and utilities” (Statistics Canada, 2011b). Of the 69,205 residents aged 15 and over providing data, average individual income in 2010 was \$CDN 35,265: median individual income was \$CDN 28,183. Of the 33,485 private households providing data, average household income in the same year was \$CDN 69,158: median household income was \$CDN 60,175 (Statistics Canada, 2013). Of the 32,375 households providing data as to the percentage of the combined income of each spent on shelter costs, 75.7% spent less than 30% of combined income; and 24.2% spent more than 30% of combined income (Statistics Canada, 2011c).

METHODS

Data Characteristics and Search Technique:

The searched divorce files tended to include the number and surnames of children, at least if these were minors.¹ Each also included the first names and surnames of the divorcing couple, their ages at marriage, and marriage duration (*i.e.*, number of days from date of marriage to date of separation), and some included the yearly incomes and assets (net of liabilities)² of the husband and wife. Note that where multiple years’ data on spousal income or assets and liabilities were included in the file, the latest available year’s data were used, except where *Form 8A Application (Divorce)* was included in the file: in such cases, data from

¹ Most divorcing spouses used court *Form 8A Application (Divorce)*, and were thereby instructed to “...List all children involved in this case, even if no claim is being made for these children. ...” Such claim, for example, could be for access or custody. This information was instead taken from filed Separation Agreement, where *Form 8A Application (Divorce)* was not filed.

this form were used for the sake of consistency, even if more recent income and assets/liabilities data were present in the court file.

Each court file also included the parties' surnames and Marriage Certificate. The latter always indicated premarital surname of the bride (and groom). The criterion for each divorcing wife being deemed to have undergone marital surname hyphenation or retention, was any mention in the court divorce file of her using her premarital surname (as contained in the Marriage Certificate) hyphenated with that of her husband or alone, respectively, prior to date of separation. Note that every page of the divorce file, except where noted below, was searched for such pre-marital or hyphenated name, and the occurrence of same, even once, was taken as adequate evidence of the wife's surname retention/hyphenation. Divorcing women who assumed (the norm in Ontario, Canada: MacEacheron, 2016) rather than legally changed surname at marriage, however, could have used their pre-marital surname within some pre-separation court file documents, despite perhaps using a husband's surname taken at marriage at all other times prior to separation. It may be, for instance, that only in divorcing wives' historical tax returns filed with court documentation as evidence of income, and not for any other purpose, the premarital surname was used. Thus, it is assumed I overestimate divorcing women's rate of marital surname retention and hyphenation. Note that it has been asserted, without non-anecdotal evidence, that grooms taking brides' surnames, or the former combining their surname with the latter at marriage, occurs at negligible frequency in the U.S. (see Snyder, 2009, and see Friess, 2007, citing the practice being so rare as to never have been studied), with no data reported for Canada. Thus, it was decided to not investigate such practice beyond recording its frequency. Note that it was not observed in any of the searched court files.

As in other sections of this thesis, the traditional practice of women, only, changing surname at marriage to that of a male spouse is examined. The literature is yet silent as to, in same-sex marriages, the proportion of women or men who take their spouse's surnames. Since this research concerns an instance of inter-sexual behaviour, it was decided to only consider data from opposite-sex couples. Such couples were identified as follows: Only

²Dates of marriage and separation, ages of husband and wife at time of separation, and incomes and assets minus liabilities of husband and wife obtained from *Form 8A Application (Divorce)* whenever this form was filed. When it was not, this information was taken from a filed Separation Agreement or, in the case of income only and only where it was filed, *Form 13: Financial Property and Support Claim Statement* or tax return included in the file.

couples the first name of one of which is usually only male and the first name of the other of which is usually only female were used, to exclude same-sex divorcing couples (using Wikipedia's lists of worldwide male, female, and androgynous first names, and those derived therefrom, at http://en.wikipedia.org/wiki/Category:Given_names_by_gender reference, as done in Larivière, Ni, Gingras, Cronin & Sugimoto, 2013). This means of excluding same-sex couples was used except if at least one of the divorcing spouses' first names was/were androgynous. In that case, one of three methods were used to determine whether the divorcing couple were same- or different-sex. First, where one divorcing spouse's first name was androgynous, but a middle name was specified and it was not androgynous, the couple was deemed different-sex where such middle name was opposite in gender compared to the other spouse's first name. Second, if the date of marriage was prior to the legalization of same-sex marriage, the couple was deemed opposite-sex. Third, where the file included the Department of Justice form *Registration of Divorce Proceedings (Divorce Act)*, which specifies the sex of each of the divorcing spouses, and one such spouse was specified as female and the other as male, the couple was deemed opposite-sex.

One practical difficulty associated with such a search, was the fact I was only granted two business days in which to complete it. Thus, a method for sampling the divorce files was devised. One such procedure would have consisted of searching divorce files for a single year or other period of time only, or some proportion ($1/n$) only of these, with each n^{th} file chosen for review. The proportion (or number) chosen for searching, however, would have had to allow for searching at least 26 X 2 files of (opposite-sex) divorces to allow for adequate statistical power in t -testing (with two groups) at $\alpha = .05$, with an expected large effect size, assuming each group contained at least 26 data points (Cohen, 1992). Assuming Johnson and Scheuble's (1995) U.S. finding that 4.6% of wives in that country currently retain (or hyphenate) surname at marriage applied to couples divorcing in Elgin County, however, the wife would be expected to have retained her pre-marital surname in only one out of 26 divorce files. In order to obtain 26 files in which the wife retained or hyphenated her pre-marital surname, approximately 565 files would thus need to be searched. This approach was not feasible given the time allowed to review the files. Thus, I initially, cursorily pre-searched the number of files that were feasible to search in one day (all then-finalized 2014 divorces the files of which were not being used by court staff: 108), simply to ascertain in how many the wife had either retained or hyphenated her surname. More than 26

divorces were of couples the wife of which had undertaken either of these options. It was thus acceptable to only search these 108 in detail. As many additional files ($n = 59$) as I could search in the time remaining were searched more cursorily, in reverse chronological order by divorce finalization date. In this way, I completely or cursorily searched all files (not being used by court staff) with divorce finalization dates back to 15 October 2013.

In addition to determining for each in this set of cursorily-searched files whether the wife had retained, hyphenated, or changed her surname, it was necessary, as discussed, to first determine that the divorcing couple were different in sex. While the former set of files was completely searched (every page reviewed), in the latter set only the front pages (up to the first mention of each party's full name) of each of the file's court submissions was viewed, due to time constraints. Thus, the second and third above-noted criteria for such identification could not be applied to cursorily-searched files. This, unfortunately, meant that for cursorily-searched files, where a first name of one of the parties was androgynous and no non-androgynous middle name was given for that party, data from the file could not be collected. For this reason, two cursorily-searched files had to be omitted from data collection. With the possible exception of these two files, no same-sex divorces were identified in the files searched. An added implication of the cursory nature of the searches of the above-noted 59 files, was that Marriage Certificates were not searchable. Thus, it was not assessable, for these files, where the surnames of a divorcing couple were the same, whether the wife had taken the husband's name or vice-versa. In such cases, it was assumed that the wife had taken the husband's. Finally, note that a total of five files (of those searched both thoroughly and cursorily) were unavailable to search due to being used by court staff.

The variable data collected from the fully-searched 108 then-finalized 2014 divorce files were: (i) whether the divorcing wife had changed, hyphenated, or retained her premarital surname during the marriage at issue, (ii) whether the divorcing wife had ever changed surname prior to the marriage at issue, (iii) whether the marriage at issue had been the wife's first versus second/subsequent marriage, (iv) total number of children cited in the divorce file, (v) number of children of the marriage, (vi) yearly incomes of divorcing wife and husband, (vii) assets minus liabilities of divorcing wife and husband, (viii) ages of wife and husband at time of separation, and (ix) marriage duration.

My search occurred on 11 and 12 September 2014. I completely searched all files representing divorces finalized in 2014 and placed in permanent storage by 11 September

2014, not then being used by court staff. As noted, all but seven files representing approximately 8 months of divorce finalization dates (*i.e.*, 12 June 2014 to 15 October 2013), in all, were searched (in-depth or cursorily). Searches were confined as much as possible in time, as the passage of time might make marriages and/or divorcing wives and/or divorcing husbands less comparable amongst themselves. Additionally, these were the most recent years' files then available. Finally, this course of action represented less of a burden for court staff than searching in-depth divorce files representing a greater range of divorce finalization dates.

Note that income is expressed per year. Where income was reported to the court per other unit time, it was appropriately linearly transformed. Where children of the marriage were mentioned in divorce files (as is standard), whether their surname(s) were the same as or different from that of their mother and/or father was always discernible. Note that where such a child was (i) female, (ii) over the age of 18, (iii) bore neither her father's or mother's surname nor a combination (*e.g.*, hyphenate) of the two, and (iv) yet all her other siblings listed bore solely the surname of the father, it was assumed all children of the marriage were given solely the father's surname at birth. (This happened in one case: in no other cases did the surnames of the children of the marriage differ each from the other.) This was assumed, since an adult daughter, if married, is likely to have undergone her own marital surname change. Where the day of the month on which separation occurred was not specified, it was assumed to have occurred on the first day of that month (this happened in four cases): where neither day of the month nor month of the year of separation were specified (one case), separation was assumed to have occurred on the first day of the specified year. Ages, except where specified to be as of date of marriage, are as of date of separation. In joint filings specifying one spouse's income but not the other's, it was assumed the spouse with non-specified income had zero income. Note that in all cases but three in which this occurred, it was the husband's income that was specified. Where children's birthdates were specified, only if such birthdates were on or following the date of marriage or if these children were specified as the children of both parties in other file documentation, were such children considered children of the marriage. Where children's birthdates were not specified, it was assumed they were children of the marriage, due to these children's existence being relevant enough to the divorce proceedings to list them in the divorce documentation.

Note that many divorce files did not contain complete income data (*e.g.*, where

spouses drafted their own Separation Agreements and chose to not disclose such information, rather than use the income reporting form supplied by the court: *Form 8A Application (Divorce)*). Where income and/or assets minus liabilities are provided via that court form, though, the form itself mandates common methods for assessing amounts of each. Additionally, though there is an incentive on the part of each divorcing spouse to lie so as to minimize income and/or assets minus liabilities (*e.g.*, to reduce or eliminate support obligations), there is an incentive on the part of the other party to prove otherwise, and the court has the power to demand tax returns and other proofs of income and assets/liabilities. Thus, these income data may be considered as at least somewhat reliable.

Statistical Methods:

I planned to assess whether marriages in which the wife took the husband's name produced more children, and were associated with younger bridal age, wealthier husbands (at time of separation: data only available at that point), and/or longer duration, via *t*-tests. A regression analysis with number of children as DV was also planned and conducted with the predictor being whether the wife changed surname versus not (hyphenation included in the latter category: effect-coded, with changed name = -1, and retained/hyphenated own surname = 1), and control predictor of marriage length, to further test my hypothesis that marital surname change predicted number of children of these marriages. I further planned to test whether husband's income (at time of separation) was predicted by wife's marital surname change, in an analogous regression including length of marriage (which might tend to increase wealth) and number of children (which might tend to decrease wealth) as control predictors. Wife's income (at time of separation) was planned to be included as an additional control predictor in a separate, otherwise-similar regression, due to the fact it might logically be related to husband's income.

Length of marriage, up to date of separation, was provided for each divorce. Thus, it is possible to control for marriage length in assessing whether marriages in which the wife took the husband's name produced more children. A planned regression appropriate to a DV of count data (number of children of the marriage—Poisson or Negative Binomial) was conducted to assess this, with one predictor being length of marriage, and the other (dichotomous) predictor being the ex-wife having undergone marital surname change. It was also possible to assess whether marriages ending in divorce tended to last longer where the

ex-wife underwent marital surname change: This is assessed using a *t*-test.

RESULTS

Descriptive Statistics:

A total of 167 divorce files were searched: $n = 108$ were searched in-depth and $n = 59$, cursorily (as described above). Data within the *Marital Surname Change/Retention/Hyphenation* sub-section below, only, reflects data from all these files: the remaining variables discussed, or discussed in association with the just-noted name change variable, reflect data from the sub-set (*i.e.*, 108 of these) of files searched in-depth.

Marital Surname Change/Retention/Hyphenation:

Of the $N = 167$ divorcing wives, 126 underwent marital surname change to that of their husbands (75.45%), 3 hyphenated their pre-marital surname with that of their husband (1.80%), and 38 retained their pre-marital surname during marriage (22.75%). Thus, a total of 24.55% retained their surname in some fashion, whether using solely it or combining it with the husband's.

Previous Divorce and Surname Change of the Divorcing Wives:

Of the 108 wives the divorce files of whom were searched adequately to determine whether they had previously divorced and/or changed surname, 16 (9.6%) had previously divorced. Of all divorcing wives the divorce files of whom had been searched adequately to determine whether they had previously divorced and/or changed surname ($n = 108$), data regarding any previous surname change was missing in three files. Of the remaining 105, 8 (4.8%) had changed surname previous to last marriage (*i.e.*, previous to the dissolution of the marriage which was the subject of the divorce file). Due to the low number of divorcing wives who had divorced previously or changed surname before last marriage, statistical power was deemed inadequate for analyses involving these women as (a) group(s) (see generally Cohen, 1992).

Children:

Children were mentioned in the divorce files presumably where these were relevant to the divorce proceedings. For example, they were to be listed on *Form 8A Application*

(*Divorce*), completed by most divorcing couples, based on the wording of the form, if these children were "... involved in this case, even if no claim is being made for the(m) ...". Only from files searched in-depth ($n = 108$) were data concerning children recorded. Note that administrative error led to no datum being recorded as to whether there were any children who were not children of the marriage, for one couple. This couple had no children of the marriage (though each may have had other children – such as children born prior to the marriage, of one spouse only). Of the remaining 107 divorcing couples for which data were recorded on all children (whether children of the marriage or not), 34 listed no children (31.78%), 26 listed one (24.30%), 34 listed two (31.78%), 10 listed three (9.34%), and 3 couples listed four (2.80%). Thus, there were a total of 136 children (of the marriage, or not of the marriage) listed. Of the 108 divorcing couples for which data were recorded on children of the marriage, 37 listed none (34.26%), 24 listed one (22.22%), 34 listed two (31.48%), 10 listed three (9.26%), and 3 couples listed four (2.78%). Thus, there were a total of 134 children of the marriage listed.

Thus, only two children out of the total of 136 (1.47%) mentioned in the divorce files were not children of the marriage being dissolved. One bore as his or her sole surname that of the relevant divorcing husband: No datum was ascertainable from the relevant file as to the surname of the other. Only one child out of the total of 136 (0.74%) did not bear solely the surname of the divorcing father. This child was a child of the relevant marriage. The divorcing woman (presumably, its mother) listing this child had retained her premarital surname. This child bore a hyphenated surname, combining his or her (presumed) mother's with that of the man she was divorcing from (presumably, the child's father).

Incomes:

Divorcing wives' yearly income ranged from \$CDN 0.00 to \$CDN 134,836.08 (data provided in $n = 42$ of the 108 divorce files searched in-depth, only), with an average of \$CDN 24,932.47 (\pm \$CDN 33,530.22) and a median of \$CDN 11,057.86. Divorcing husbands' yearly income ranged from \$CDN 0.00 to \$CDN 305,273.12 (data provided in $n = 45$ of 108 files searched in-depth, only), with an average of \$CDN 63,737.13 (\pm \$CDN 50,214.44) and a median of \$CDN 57,100.00. Of the divorcing couples for whom at least one spouse's income was provided, the wives in only 14 either hyphenated their premarital surnames with those of their husbands or retained their premarital surnames (leaving 31 who

took their husbands' surnames). Since the planned comparison (t -test) was between incomes of individual spouses in couples in which the wife had taken her husband's surname at marriage versus those in which the wife had not, power would have been inadequate to proceed (Cohen, 1992). This variable was not explored further.

In the space requiring same on *Form 8A Application (Divorce)*, total assets minus total liabilities of each divorcing spouse were sometimes provided. These were provided, however, in the case of only 17 divorcing wives and 18 divorcing husbands. Due to the low number of divorcing spouses providing such data, statistical power associated with using assets minus liabilities as a predictor in any analyses was similarly deemed inadequate: this variable was not explored further.

Spouses' Ages:

Complete data was available as to couples' ages, for the portion of divorce files searched in-depth ($n = 108$). The separation date for one marriage the divorce file for which was searched in-depth, however, was not recorded due to administrative error. Thus, since marriage duration (*i.e.*, separation date less wedding date) was used to assess age as of date of marriage, this datum for one divorcing couple is missing.

As of date of marriage, divorcing women ranged from 19 to 50 years of age: Mean age = 30.63 (± 6.68), and median age = 28 years. As of date of marriage, divorcing men ranged from 21 to 62 years of age: Mean age = 33.33 (± 7.62), and median age = 32 years. Husbands were, on average, 2.66 (± 4.61) years older than their wives: median age difference was 2 years. As of date of separation, divorcing women ranged from 24 to 59 years of age: Mean age = 40.92 (± 8.85), and median age = 41 years. As of date of separation, divorcing men ranged from 24 to 62 years of age: Mean age = 43.57 (± 9.14), and median age=42 years.

Marriage Duration:

Marriage duration was noted for $n = 108$ divorce files searched in-depth, and was defined as time from date of wedding to date of separation. As noted, this variable was not computable for one such file, due to administrative error. Marriages examined lasted an average of 3887.18 days (± 2839.69): Median duration = 3121 days. Marriage duration ranged from 62 to 11887 days. In years, marriages examined lasted an average of 10.14

years (± 7.79), median duration = 8 years. In years, marriage duration ranged from less than 1, to 32.

Statistical Analyses:

As noted, divorcing wives who simply took husbands' surnames were compared with wives who hyphenated these with their premarital surnames or retained their premarital surnames, to assess whether the former were younger at marriage and had more children and longer marriages, as hypothesized. Note that all these variables were only collected from divorce files searched in-depth ($n = 108$). In 33 of these divorces, the wives had either hyphenated or retained premarital surname, and in the remaining 75, the wives had changed surname to that of their husbands. Whether the proportion of children of the marriages studied not receiving solely their father's surname differed by whether their mothers had taken these fathers' surnames at marriage (as opposed to retaining premarital surname or hyphenating) was also assessed via *t*-test: This proportion did not differ between the two groups ($t_{(17)} = 1.00, p = ns$), though the test must be considered underpowered (Cohen, 1992).

Whether women who took their husbands' surnames were younger at marriage:

As noted, age at marriage was not determinable for one divorce file in which it was searched, due to administrative error. Of the remaining ($n = 32$) divorcing wives who had either hyphenated their premarital surname with that of their husbands or retained their premarital surname, average age at marriage was 31.16 (± 6.99) years. Of the other divorcing wives, who had changed their premarital surnames to those of their husbands ($n = 75$), their average age at marriage was 30.40 (± 6.68) years. A *t*-test comparing age at marriage between the former and latter set of women was conducted. My prediction was directional (*i.e.*, that the former group of women would have lower bridal age than the latter), thus a one-tailed *t*-test is appropriate. Although the trend was as predicted, the prediction was not borne out: $t_{(105)} = .54, p = ns$.

Whether marriages in which the wife took the husband's surname produced more children:

Of the divorcing wives who had either hyphenated their premarital surname with that of their husbands or retained their premarital surname, average number of children of the

marriage was 0.94 (\pm 1.10). Of the remaining divorcing wives, who had changed their premarital surnames to those of their husbands, average number of children of the marriage was 1.37 (\pm 1.10). A *t*-test comparing number of children of the marriage between the former and latter set of women, was conducted. My prediction was directional (*i.e.*, that the former group of women will have fewer children of the marriage than the latter), thus a one-tailed *t*-test is appropriate. This prediction was borne out: $t_{(106)} = -1.90$, $p = .03$, effect size $r = .18$ or Cohen's $d = .39$ (moderate). Note, however, that at the given alpha (.05) without a *large* effect size this analysis must be considered inadequately powered (*i.e.*, power < .80).

Now reported is the planned regression with number of children of the marriage as DV, (effect-coded) predictor of wife undergoing surname change versus not (hyphenation included in the latter category), and covariate of marriage length, to further test my hypothesis that marital surname change predicted number of children of these marriages. Marriage length was included as a covariate since it logically may, independently of whether or not the wife underwent marital surname change, predict number of children of the marriage. In an attempt to attain good model fit, two different regressions appropriate to a DV of count data –Poisson (distribution tracking event probability over a fixed interval) and Negative Binomial (distribution tracking number of event occurrences over a time series of independent trials) -- were conducted. The two regressions' Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC) values were compared, to determine which modelling achieved greater fit to the data. Each of these related, information criteria assesses model fit: the lower the value, the better the fit. BIC includes greater score inflation for overfitting than does AIC (Schwarz, 1978). Lower AIC and BIC values in the Poisson modelling (AIC = 293.86, BIC = 326.71) than in the Negative Binomial modelling (AIC = 301.88, BIC = 334.73) showed better fit of the former. Additionally, Hoffman (2004) notes, Poisson is an appropriate distribution on which to model count data representing an event incidence rate. Finally, a visual examination of the frequency distribution of children of the marriage (DV) showed that while 0 children was the modal number of children of marriages, there was an absence of any, let alone a heavy, right-hand tail (maximum number of children of the marriage was 4), which might have indicated the appropriateness of negative binomial modelling. Thus, the Poisson model will be reported here. Note that the omnibus test for model fit was highly significant (likelihood ratio chi-square = 21.87, $df = 2$, $p < .0001$).

Table 3.1 Poisson regression, DV=number of children of the marriage. ^aSet to 0 since a redundant parametre

Parametre	b	Std. Error	Wald	df	p	Exp(b)
Intercept	-.397	.2027	3.835	1	.050	.672
Wife's Surname Choice— <i>changed name</i>	.100	.2141	.217	1	.641	1.105
Wife's Surname Choice— <i>retained/hyphenated name</i>	0 ^a					1
Marriage Duration (years)	.047	.0106	19.562	1	.000	1.048

As can be seen from the relevant value of exponentiated B (incidence rate ratio), every one year of greater marriage duration is associated with a predicted 5% increase in number of children of the marriage. Wife's surname choice, on the other hand, was not significantly predictive.

Whether marriages in which the wife took the husband's surname were greater in duration:

As noted, duration of marriage was not determinable for one divorce file in which it was searched, due to administrative error. Of the remaining ($n = 32$) marriages the divorcing wives in which had either hyphenated their premarital surname with that of their husbands or retained their premarital surname, average marriage duration was 2639.00 days (± 2353.04), or 6.78 years (± 6.45). Of the marriages the divorcing wives in which had changed their premarital surnames to those of their husbands ($n = 75$), average marriage duration was 4419.73 days (± 2875.82), or 11.57 years (± 7.90). A t -test comparing duration of marriage between the former and latter set of marriage was conducted. My prediction was directional (*i.e.*, that the former group's marriage duration would be less than that of the latter), thus a one-tailed t -test is appropriate. This prediction was borne out: $t_{(105)} = -3.09$, $p = .002$, effect size $r = .29$ or Cohen's $d = .63$ (large)³.

Given that wife's (or husband's) age at time of marriage might reasonably be related to ultimate marriage duration, and given that wife's age has been previously strongly associated with her decision to change versus retain/hyphenate her surname at marriage, it was included as a covariate.

The results of Poisson and Negative Binomial regressions with marriage duration in years as DV, (effect coded) predictor of wife undergoing surname change versus not (hyphenation included in the latter category), and covariate of wife's age at time of marriage, are now discussed. The two regressions' AIC and BIC values were compared, to determine which modelling achieved greater fit to the data. Lower such values in the

Negative Binomial modelling (AIC = 717.129, BIC = 725.148) than in the Poisson modelling (AIC = 968.611, BIC = 976.629) showed better fit of the former. Thus, the Negative Binomial model will be reported here. Note that the omnibus test for model fit was significant (likelihood ratio chi-square = 8.82, $df = 2$, $p = .012$).

Table 3.2 Negative binomial regression, DV=duration of marriage in years. ^a Set to 0 since a redundant parametre.

Parametre	b	Std. Error	Wald	df	p	Exp(b)
Intercept	2.834	.5276	28.849	1	.000	17.014
Wife's Surname Choice— <i>changed name</i>	.472	.2275	4.312	1	.038	1.604
Wife's Surname Choice— <i>retained/hyphenated name</i>	0 ^a					1
Wife's age at time of Marriage	-.029	.0154	3.619	1	.057	.971

Consistent with the relevant t -test result, wife's surname choice was significantly predictive of marriage duration (Wald's chi-square = 4.312, $df = 1$, $p = .038$), with having changed surname at marriage to that of the husband predicting greater such duration. As can be seen from the value of exponentiated B (incidence rate ratio) associated with wife's surname choice, women who changed surname at marriage had marriages of approximately 60% longer duration than women who retained their premarital surnames or hyphenated. Wife's age at time of marriage, on the other hand, was a marginally significant, negative predictor of marriage duration (Wald's chi-square = 3.619, $df = 1$, $p = .057$). As can be seen from the value of exponentiated B associated with wife's age at time of marriage, for each additional such year of age, there was a $1 - .971 = .029$ decrease in incidence rate ratio of duration of the marriage in years. In other words, the duration of the marriage in years was 0.029 times as great, for each additional year of age of the wife at time of marriage.

DISCUSSION

As noted, 24.55% of divorcing wives (in different-sex marriages) studied either retained their premarital surnames during marriage, or hyphenated it with that of their

³ Note that this difference is also significant under two-tailed t -testing: $t_{(105)} = -3.09$, $p = .003$.

husbands. This percentage appears in stark contrast with Johnson and Scheuble's (1995) analogous figure of 4.6% for U.S. women, representatively sampled across that nation. In part due to this contrast, the possibility must be considered that among divorcing couples, at least in the current sample, marriages in which wives retained or hyphenated surname were oversampled. That is, it is possible that disproportionately more marriages the women in which did not take their husbands' surnames ended in divorce in the given time period studied, compared with other marriages.

On the other hand, the figure of 24.55% appears similar to that found among Canadian destination brides to Hawai'i in the year 2006 (25.22%: MacEacheron, 2011). Note, however, that among U.S. women getting married in Hawai'i in 2006 (a presumably comparable group), average rate of surname retention or hyphenation was 17.05%-- also much higher than the 4.6% figure of Johnson and Scheuble's (1995) representative survey. Thus, MacEacheron's (2011) above-noted finding of 25.22% retention or hyphenation among Canadian brides must itself be treated as a likely overestimation, perhaps due to a lesser tendency among destination brides to take solely their husbands' surnames.

Assuming representativeness of the current study's data (but see also discussion just below), two possibilities are suggested: either (1) the frequency of the practice has risen in the approximately 20-year period following Johnson and Scheuble's (1995) work, and/or (2) rate of retention/hyphenation in Canada, for which no generalizable data as to rate currently exist, are higher than those in the U.S.

Whether children born to opposite-sex parents bear their fathers', mothers', or a combination surname, affects the continuation of such names, and thus may be considered important (*e.g.*, MacEacheron, 2016). In the given sample, the receipt by any child of a surname other than solely that of his or her father, was a practice of negligible frequency. It cannot be determined from the data (due to inadequate power of the relevant *t*-test) whether children received a surname other than solely that of their fathers more frequently, in marriages in which the wife did not take her husband's surname as her sole surname.

Contrary to hypothesis, women who took their husbands' surnames at marriage did not tend to be younger. Additionally, while underpowered *t*-test indicated that such women had more children within marriage (DV), a planned regression with the same predictor and DV but controlling for marriage duration, showed that marriage duration, alone, was predictive.

A strong result was the finding that marriages in which women took their husbands' surnames lasted longer than marriages in which women did not (and either hyphenated their premarital surname with that of the husband, or retained premarital surname). It has only been legal in all U.S. states for all purposes, for between 30 and 40 years as of time of writing, however, for women to not undergo marital surname change (*e.g.*, MacClintock, 2011; Goldin & Shim, 2004). It is unclear from the legal literature for how long for Canadian brides it has been legal for all purposes to not undergo marital surname change. Speculatively, despite various legal and other differences between the two countries, however, the cultural closeness of the U.S. to Canada would suggest that Canadian women, more so 30 to 40 years ago than more recently, may not have perceived they had the choice to not undergo marital surname change, even assuming they did (MacEacheron, 2016). Many marriages in both countries, as well as Australia and the majority of Europe that end in divorce, do so within the first few years of the marriage (*e.g.*, Goode, 1993). As noted, women who did not undergo marital surname change in this sample had marriages of lesser duration. The question, however, of whether such women may *also* have tended to be younger, with this being (partially) explanatory of their lesser average marriage duration, is reasonably raised given the just-noted historical, legal situation in the U.S.

Thus, both of the predictors of (1) bride's age at marriage, and (2) whether she had undergone marital surname change or not were simultaneously compared for predictiveness of marriage duration in years within a regression. Consistent with the relevant *t*-test result, wife's surname choice was significantly predictive of marriage duration, with having changed surname at marriage to that of the husband positively predicting greater such duration. Wife's age at time of marriage, on the other hand, was a marginally significant, negative predictor of marriage duration.

Limitations:

As discussed above, my method of determining whether a divorcing wife had either retained or hyphenated her pre-marital surname likely entailed overestimation of the frequencies of these practices. As noted, under that method, even one usage of the premarital surname, hyphenated with that of the husband or on its own, in court file contents dated after the marriage but before the date of separation, resulted in the designation of the wife as one who had not undergone marital surname change. Since use of the pre-marital surname may

have occurred highly selectively (*e.g.*, solely on a pay-stub from an employer), it must be assumed I overestimate rate of retention/hyphenation. No better estimation method seemed devisable, however, given the constraints of the data source (court divorce files). Since I almost certainly erroneously included some women who had changed surname at marriage as “retainers” or “hyphenators”, my hypotheses that retainers and hyphenators would tend to be older at time of marriage, bear fewer children within the marriage, and have marriages of shorter duration, would tend to be less supported if true. There are, however, no other records kept of retention or hyphenation of surname by women at marriage which include data regarding bridal age, marriage duration, number of children, and children’s surnames, at least in North America (see, *e.g.*, Cherlin, 1978; Goldin & Shim, 2004). As such, there was deemed to be no better, available data source.

A problem of selection bias may also be associated with this study. Divorcing spouses would seem to not be representative of spouses in general. I am investigating marital surname change, broadly, as a possible index of a wife’s marital commitment. Divorce is a choice to end such commitment. So, the question as to whether data from those divorcing should be used to assess commitment (which commitment, if unequivocal, would result in never divorcing), is reasonably raised. In other words, it may be that only wives with lesser marital commitment may be being compared with one another via this study. Given, however, that a divorce is granted where only one spouse wants one, and this spouse is at least sometimes the husband, divorcing wives could not solely represent wives with lesser marital commitment. 42.1% of marriages celebrated in 2008 in Ontario are projected to end in divorce within 30 years (Statistics Canada, 2011). Given that many marriages, even of relatively long duration, end in divorce, I submit that the couples studied were not only representative of couples of lesser marital commitment, at least at the inception of the marriage (when name change, if any, presumably mostly occurs).

One implication of the presumed existence of at least some husband-initiated divorce, or divorce the origin of which was largely husband-driven, on the current data, in combination with the finding that marriages the wife in which did not take the husband’s surname did not last as long, is that husbands may be driving or partially driving divorce, preferentially where their wives did not take their surnames. Potentially, this could even be one causal factor to husband-initiated divorce, or the portion of the initiation/continuation of the divorce contributed to by the husband. For example, if women’s marital surname change

is viewed by some men as a commitment signal on the part of their wives, then men whose wives did not take their surnames may contribute to divorce more, more often, or more quickly than they would otherwise, due to their perception that their wives do not wish to stay married as much as other men's do.

As noted above, income data was provided for only 42 wives and 45 husbands, within the 108 divorce files searched in-depth. One reason for this, could have been that while *Form 8A Application (Divorce)* mandates the inclusion of such data, it was often omitted from Separation Agreements (and then not entered elsewhere in the file). Speculatively, many divorcing spouses' preference for co-drafting a Separation Agreement rather than each completing his/her own portion of the given court form, may thus have driven this non-inclusion of data. Assuming this speculation is justified, any differences in income systematically associated with preference to co-draft a Separation Agreement rather than to complete the given form, will be lost from the data collected. Notwithstanding this possibility, searches of a greater number of files, in order to obtain a sufficient number containing income data for adequately-powered statistical analyses, are suggested.

Possible Future Directions:

As noted above, the 24.55% rate of divorcing wives in my sample not having changed their surnames solely to that of their divorcing husbands, appears high. That is, when compared to Johnson and Scheuble's (1995) analogous figure of 4.6% for U.S., married, *non-divorcing* women, representatively sampled across that nation, a figure of 24.55% demands an explanation. I posited that (i) differences over time (since Johnson & Scheuble's study, published over 20 years prior) and/or (ii) cultural differences between Canada and the U.S. affecting frequencies of marital surnaming practices, might be at least partially explanatory. I also stated the possibility that among the divorcing couples I studied, marriages in which wives retained or hyphenated surname were oversampled. That is, disproportionately more marriages the women in which did not take their husbands' surnames may have ended in divorce over the time period studied, compared with other marriages. Current replication of Johnson and Scheuble's (1995) study, in the U.S. and Canada, would uncover whether (i) is operating. The possibility, (ii), would seem more difficult to assess. Such assessment, however, could be initiated via surveying of attitudes towards women's marital surname change, retention, and hyphenation, in both countries.

Finally, it would seem possible to test whether marriages in Elgin County in which the women did not take solely their husbands' surname were more likely to end in divorce than were other marriages within the time period studied. This could be accomplished, for instance, by surveying women within Elgin County who were spouses in intact marriages within the time period covered by my study, as to whether they took (solely) their husbands' surname at marriage or not. Then, this rate of surname change versus retention/hyphenation in the larger population of wives within intact marriages, would be compared with that of only the divorcing wives in my study. Such a new study, however, would yield data which might only relate to Elgin County, and therefore be of limited interest. Because there is no publicly-available registry of women within intact marriages in Elgin County (or anywhere in Canada), nor even just of women,⁴ to whom such a survey could be sent, it could be mass-mailed to as many households as possible. Many of these, of course, would not contain a wife in an intact marriage. If an incentive for completion were offered as part of such a mass mailing, it might be expected that some who are not wives in intact marriages might complete the survey, while if no such incentive were offered, a low rate of survey completion might be anticipated. An unknown quantity of such surveys would, additionally, need to be discarded, in order to make the final sample representative of the population of Elgin County in factors such as age, income, and educational attainment.

Taking together the results of the wife's taking of the husband's surname at marriage predicting (1) longer marriage, plus, arguably, (2) more children of the marriage, but not when marriage duration is taken into account, in the given sample, is suggestive. Could the tendency for marriages in which the wife did not take the husband's surname to produce fewer children, be caused by these marriages tending to be of lesser duration? This intriguing possibility could begin to be assessed via future survey work, for example, in which divorcing women are asked whether they took their ex-husbands' surnames or not, as well as why they limited the number of children they had to the number they did, assuming such

⁴ Although there are directories of marriage certificates issued in Canada (*e.g.*, in Ontario, administered by ServiceOntario), it is only possible to request a search for a marriage certificate of two *given* individuals married to each other (*i.e.*, whose full names and city or town in which the marriage occurred are provided), and there may be a fee for such inquiry (*e.g.*, Service Ontario, 2012-2016). There seems, additionally, no likely source of Elgin County's women's names, as such publicly-available name listings as telephone directories may contain only a male householder's name. Finally, telephone listings may not even constitute a viable source of men's names, as these frequently do not contain a full first name (rather, only an initial).

limitation occurred at all and was the result of choice. A related, intriguing possibility as to why marriages in which the wife did not take her husband's surname may yield fewer children, is that such women, as argued elsewhere in this thesis, may tend to more greatly emphasize occupational success over having (more) children. This possibility will begin to be assessed, in part, via Study 3, in which Canadian brides-to-be will be asked their incomes as well as number of children desired. Also assessable via Study 3: whether presumed correlates of traditionality, such as cohabitation before marriage and religious affiliation, more so than other predictors hypothesized herein (*e.g.*, income), predict women's marital surname change/retention/hyphenation.

Possible future archival data analysis:

An alternative study procedure which would avoid the above "practical" problem of limited time in which to conduct the search, would be electronic searching of divorce cases on *CanLII* (<https://www.canlii.org/en/>), a publicly-available repository of, among other things, legally-significant family law judicial decisions. Thousands of such decisions concerning divorce are available on this free repository. Such decisions, however, do not necessarily include some of the data of interest (*i.e.*, number of children of the marriage, and assets and/or income of each of the ex-spouses) beyond the divorcing spouses' names. All or almost all regarding custody, however, should describe the number of children of the marriage.

A self-selection problem occurs with such a sample of divorces, however. In Ontario in 2010/2011, only 19% of divorces were contested in court (Statistics Canada, 2012b). Thus, only in a small percentage of divorcing couples (1) does at least one of the estranged spouses choose to submit (a) decision(s) concerning the divorce to the court, or (2) are the estranged spouses unable to come to such decisions without the court's assistance. Only such decisions can appear in *CanLII*. To the extent divorce via the courts is expensive or perceived to be expensive, less wealthy divorcing spouses would be expected to tend to avoid the courts. Additionally, to the extent deciding upon divorce settlement and custody arrangements in court is more upsetting and/or perceived as more distasteful than other options, divorcing spouses more averse to any such upset and distastefulness may also tend to divorce without the court's assistance, and perhaps to less often raise novel legal arguments that would sometimes tend to land the judgment on *CanLII*. Assuming these things are true, such a study

would disproportionately be of wealthier divorcing couples, at least one member of which is able to pay for a court to decide settlement and custody issues and/or both members of which are unable to make necessary decisions without the court's assistance. Such a study would also include as 'participants' a disproportionate number of those willing enough to bear the upset or perceived distastefulness of the court process to engage in it. Thus, the study completed may be considered to better sample divorcing couples.

Conclusions:

In the given sample, different-sex divorcing couples the women in which did not undergo marital surname change (*i.e.*, instead retaining their premarital surnames or hyphenating these with those of their husbands) remained married for significantly fewer years than did such couples the women in which underwent marital surname change, including when controlling for wife's age at time of marriage (a marginally-significant, negative predictor). The wife not having undergone marital surname change was marginally predictive of fewer children of the marriage under underpowered *t*-test. When the given predictor was used as a regression predictor of number of children of the marriage alongside marriage duration in years, however, only the latter was significantly predictive. Divorcing women who took their husbands' surnames at marriage did not tend to be younger than other women, at the time of their marriages. Children of the given marriages not receiving solely the marriages' husband's surname as their own was a practice of nil and negligible frequency, respectively, in marriages in which the wife had undergone marital surname change and in those in which the wife had not. A husband having taken the surname of his wife in the given sample was never observed.

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Chapter 4

Study 3: Survey “Marriage: Hopes, Plans and Attitudes”

INTRODUCTION

Previous social scientific literature has indicated several factors associated with women’s marital surname retention/hyphenation versus change, attitudes thereto, or both. These include socioeconomic, and educational and professional statuses, whether one attends religious services, age, ethno-cultural background, whether one’s own mother retained/hyphenated surname, and pre-marital co-residence with the individual one goes on to marry (Blakemore, Lawton & Vartanian, 2005; Boxer & Gritsenko, 2005; Goldin & Shim, 2004; Hoffnung, 2006; Intons-Peterson & Crawford, 1985; Johnson & Scheuble, 1995; Kline, Stafford & Miklosovic, 1996; Noack & Wiik 2008; Scheuble & Johnson, 1993, 2005; Twenge, 1997). No previous author, however, has empirically examined the practice under the lens of its significance to the institution of marriage as a reproductive alliance. No previous author, thus, has empirically examined the practice with an eye to its potential relationship not only to the two marrying spouses, but also to their families of origin.

There is a relationship between women’s marital surname change and for which parent(s) children of marriage are surnamed. In the U.S. for example, but also in other countries such as Canada, the vast majority of children bear (only) their fathers’ surnames (Emens, 2007): this proportion neared 1, in one U.S. study, where the children’s mother underwent marital surname change (Johnson & Scheuble, 2002). Although it is highly unlikely that women, as a group, believe that surnaming children of their marriages for their husbands (at the time) will necessarily lead to these husbands taking legal responsibility for the children (Intons-Peterson & Crawford, 1985), it is not implausible that namesaking increases investment (see, *e.g.*, Furstenberg & Talvitie, 1980; Cherlin & Furstenberg, 1986). Additionally, the results of two surveys suggest that brides who retain pre-marital surname are more likely to be perceived by third parties as likely to be sexually unfaithful within the marriage, or to leave it (Stafford & Kline, 1996; Suter, 2004; Robnett, Underwood, Nelson & Anderson, 2016). Such actions, if taken, would perhaps lead to lesser investment by

husbands in the children of the marriage, due to cuckoldry concerns in the former case (see also Tach, Mincy & Edin, 2010, regarding lesser involvement with children born out of wedlock, by fathers no longer in romantic relationships with the children's mothers). Data collected from young men, only, show these report viewing women who undergo marital surname change as more committed to marriage (Scheuble, Johnson & Johnson, 2012). Finally, fathers-to-be in one informal survey of opposite-sex married couples in which the wife had not taken the husband's surname, stated they cared that their children would be surnamed for them (Cherlin, 1978). Thus, this traditional practice would seem to be one in which both sexes have an interest.

The aim of the present study is to re-test several hypotheses created as part of my Master's work and tested on Canadian undergraduate women, none of whom had ever been married, on actual, Canadian, brides-to-be. Only questions testing the hypotheses that were *re*-tested as part of the current study, were retained from the original survey due to concerns about its length. (References to common-law unions were also dropped, as they seemed to be non-relevant to those registered with weddingbells.ca, to whom the survey was sent.) The 'hypotheses' underlying the stated hypotheses herein, are two-fold. First, is that women's marital surname change *signals* to the groom and/or to his natal family the bride's commitment to staying within the marriage and to joining and remaining within her new family. Second is that, via such signaling, brides increase the probability of investment in themselves and the future children of the marriage by the groom and his natal family. The primary goal in administering the survey, below, to undergraduate women as part of my M.Sc. work, was to obtain young women's 'pure wish' as to surname change: their attitude toward it at an age when very few or none would have yet negotiated an actual engagement or had their marriage arranged (with a particular mate who is a member of a particular family that will be the bride's affines). Getting their attitude at this time in life was thought to be important, since it would be less likely that their views would be influenced by feelings for a *particular* mate or his family (especially since the sole dependent variable was her attitude towards women's marital surname change *in general*), and yet they would be old enough to have presumably thought about the topic of marital surname change. Additionally, most of the literature on marital surname change attitude comes from convenience sample studies: My M.Sc. level survey could be readily interpreted alongside these, though sharing in their

limitations.

Replicating this study on brides-to-be provides an important check of its results: younger women's 'ideal' wishes and attitudes may very well differ from those negotiating an actual marriage and future in-law relations. Only the latter set of participants can provide ecologically valid data. Replicating these results on Canadian brides-to-be provide the first data from such a source in this country as to rate of marital surname retention/hyphenation. Brides were sought from each province so that any inter-provincial differences in retention/hyphenation rate could be estimated. Thus, the data analysis of the present study was planned, in part, to allow for confirmation/disconfirmation of results from Study 1 in Canada, in which rates of retention/hyphenation for the different U.S. states were estimated, but this time at both the level of sub-jurisdiction (in Canada, province) and of the individual (bride).

In this study, brides'-to-be individual incomes, as well as those of their betrothed, were also queried. This provided the opportunity to directly test *hypothesis 1a: that individual women's own income and that of their grooms are predictive of these women's surname retention/hyphenation*. (Note that whether the participant would retain/hyphenate surname at marriage, versus change it, was the first of two dependent variables.) In Study 1 this was merely surmizable as possible, given the high correlation between a state's brides' overall rate of retention/hyphenation, and that state's median income levels for women. *It is hypothesized (hypothesis 1b) that this will similarly be the case for the Canadian brides-to-be surveyed, at the provincial level*.

Also found in Study 1: the interaction of state household Gini with state women's median full-time and salaried income was predictive in the focal regression, along with the latter of the interaction predictors alone, of proportion of brides retaining/hyphenating surname. In short, what was found was that only in states in which household-to-household income equality was relatively high *and* women's median full-time and salaried income relatively high, was proportion of brides retaining/hyphenating surname greater than in any other category of state. For the same reasons given in the Discussion section of Study 1, I promulgate *hypothesis 1c: this will similarly be the case in the Canadian data*. Further, I tentatively hypothesize that greater female-female competition for husbands will be perceived among participants, in provinces of higher household Gini (*i.e.*, lesser household-

to-household income equality). The reason for this tentativeness, is that women engaged to men may have an incentive to not view competition for husbands as as great as it actually is. That is, it may be difficult on the eves of their marriages to acknowledge the true extent of local competition for husbands, given that same may result in most such women having a sub-optimal husband. It may also be difficult for such a bride-to-be to counteract any self-enhancing perception that she was entirely competed-*for*, rather than that she engaged in at least some competition for a spouse. To deal with this last difficulty, I measured the level of competition for husbands perceived to generally exist in the participant's social environment, rather than the level of competition she perceives she engaged in to secure her fiancé(e). This action also allowed participants who reported being engaged to women to meaningfully participate in answering the item.

Searches in *PsycTESTS* on 23 June 2014 of “female-female competition”, “female competition”, and “husband competition”, revealed no measures of perception of level of competitiveness for acquisition of a husband. Thus, I asked surveyed brides-to-be the question, “How much, if at all, would you say women in your area compete with each other to find the best husband that they can?” (to be answered on a 7-point Likert-type scale: see Appendix C for entire instrument).

The other dependent variable, "In general, women should retain their birth names (at marriage)" is similar (though phrased in reverse compared) to that used in Hamilton, Geist and Powell, 2011 ("It is generally better if a woman changes her last name to her husband's name when she marries.", p. 151). It was chosen on similar grounds to which these authors chose theirs: it was thought to tap *general* attitude towards the practice. Given that the first dependent variable was own reported retention/hyphenation versus change of surname at imminent marriage, I deemed asking participants what their attitude toward the practice for themselves was, to be less likely to provide additional, meaningful insight as to attitude to the practice than asking their attitude toward the practice generally.

Women can currently attain economic independence, particularly if well educated (*e.g.*, Subbarao & Raney, 1993: for Canadian data, see Maritime Provinces Higher Education Commission, 2004). The original survey I discuss here, conducted during my Master's degree, was of undergraduate females, and thus women less likely than others to

expect to have to rely on resources from a future spouse. This may not be the case in a sample possessing greater socio-economic status diversity, such as was hoped to be attracted as participants to the current study.

The author derives the second hypothesis from the underlying, central idea in this thesis that women's marital surname change functions as a husband and affinal investment enhancer. Hypothesis 2: *Endorsement of the view that women should take the husband's surname at marriage will be predicted by the number of children desired.*

As evidenced by studies discussed above, grandparents often invest substantially in grandchildren, depending in part on degree of likely genetic relatedness. As part of this differential grandparental solicitude, maternal grandparents invest more, on average, than paternal ones. As such, a woman's parents'-in-law (*i.e.*, her future children's putative paternal grandparents') support may be understood as not assured, and therefore also as something which, if valuable, would be advantageous to seek to obtain. Assuming her surname change to that of her husband (and his parents) yields greater emotional closeness to and/or perceived solidarity with them, it may achieve the good favour of the in-laws. Assuming it does, such name change may function as a signal that enhances investment by the in-laws in the signaler and her future children. No need on the part of women to be consciously aware that marital surname change will function in this way, however, is here implied. Instead women may simply wish to please their in-laws and understand that the act is likely to do so (proximal reason for the act), while being unlikely to offend her own parents, with whom she already has long-time, strong bonds. To "get in good" with in-laws may be felt to be important, and a priority. Indeed, the quality of the relationship between daughter-in-law and parents-in-law has been shown to be positively related to the amount and frequency of grandparental involvement with grandchildren – a type of grandparental investment (Cherlin & Furstenberg, 1986).

From the above considerations, I derive Hypothesis 3: *The degree to which a woman views contacts with in-laws negatively ("In-law Avoidance Motivation") will be predictive of the degree to which she endorses the practice of marital surname retention. Furthermore, I predict that the degree to which she expects financial assistance from in-laws will comprise a separate factor from In-Law Avoidance Motivation under*

*Confirmatory Factor Analysis of both types of items.*⁸ This latter factor will not be used to predict either DV, as it would be comprised of only two items (see generally Kline, 2011).

Perceived importance to a bride of in-law investment may, however, also be a function of the level of investment she anticipates from her genetic relatives and how dependable she perceives that to be. A bride emotionally close with her family of origin may be concerned that marital surname change would show disregard for them and/or for their cultural group. Additionally, if such a bride perceives her family of origin as dependable and adequate investors in herself and her future children, she may be less motivated than other brides to attempt to enhance resource recruitment from her future in-laws. The author's Master's-level work, however, showed that closeness to mother was *not* predictive of attitude to women's marital surname change when used as a predictor alongside *In-law Avoidance Motivation* plus other predictors from the literature, within a linear regression (closeness to father was, however, a marginally significant predictor of such attitude within the regression: full results available from the author). Generally, alternate predictors as to why some women take their husbands' surnames at marriage and others do not, as proposed in diverse research, are reviewed above. Those that were possible to include in my Master's work (*i.e.*, ethnic group, religiosity, level of education, intended career, intended age at marriage, the participant's own mother's taking of her husband's surname at marriage, closeness to each parent, and some items concerning feminist attitude) were tested in that work: none was significantly predictive of marital surname change attitude (DV) within a regression including any that was correlated with the DV, plus my novel predictor of in-law avoidance motivation, as well as the importance of male mate resource-accrual potential. All of these predictors, except for (intended) career and the items concerning feminist attitude, were included in the current survey, and will be similarly tested.

In place of these last items concerning feminism, the Attitudes Toward Feminism and the Women's Movement Scale (Fassinger, 1994) was used. It is a brief (10-item), well-

⁸ Note that the wording of part of this sentence, "... will comprise a separate factor from *In-Law Avoidance Motivation* under *Confirmatory Factor Analysis*..." is unclear. That is, it is not communicated by this sentence which factor structure the relevant CFA would compare the factor structure discovered in the current data against. I intended to compare the factor structure of the current data against the factor structure of the same items administered as part of my MSc work, and actually did so. The original wording was retained throughout the creation of this thesis for reasons of transparency as to initial, poor wording.

validated, reliable (Cronbach's alpha = .89) feminist attitude scale (see discussion in Fassinger, 1994). Concern was expressed by one colleague, Katherine Aumer of Hawai'i Pacific University, that this scale might measure how participants view the state of feminism currently (*viz. e.g.*, its questions, all in the present tense, "The leaders of the women's movement may be extreme, but they have the right idea", "The women's movement is too radical and extreme in its views", and "Feminists are too visionary for a practical world"), rather than how much they identify with it. Aumer thus suggested adding a single question following the other political questions in the survey: "How much do you identify as a feminist?" using the same response scale (personal communication, 21 May 2015). This was done. Need for autonomy was also suggested by a committee member as plausibly related to desire to retain surname at marriage. A search of "autonomy" on *PsycTESTS* was conducted on 23 July 2014. Results included several instruments assessing autonomy versus sociotropy within romantic relationships. The shortest of these which was designed for heterosexual couples who were not necessarily already sex partners or cohabitating, and validated, was chosen for inclusion. This 16-item instrument of Cochran and Peplau (1985) is comprised of Egalitarian Autonomy and Dyadic Attachment sub-scales. Scores on each of these sub-scales were assessed for association with each of the DVs.

Political conservatism and liberalism were not queried in the survey that formed part of my M.Sc. work. Although state-level levels of support for the U.S. Republican and Democratic parties were not predictive of actual state-level surname retention in Study 1 when regressed along with state-level women's full-time and salaried income, political orientation will be assessed in the present study. Such an assessment will be included in order to allow determination of whether political orientation is predictive at the level of the individual (bride), and to allow for potential controlling of this predictor in multiple regressions (assuming it is related to either/both DV(s)). The Lambert and Raichle's (2000) Liberal-Conservative Self-Report Scale was used, due to its brevity and (limited) validation (Lambert & Raichle, 2000).

As in the original version of this study performed as part of my Master's work, associations between (1) each of the putative predictors and (2) (each of) the DV(s) were calculated. Where it was significantly associated with a DV, a putative predictor was regressed alongside all other such predictors (except where to do so would introduce

multicollinearity of predictors) in a regression predicting that DV. In this way, the relative predictiveness of each such putative predictor was ascertained. Additionally, the extent to which some (putative) predictors mediated the relationship between the predictors outlined in my hypotheses (*i.e.*, bride's and groom's incomes, number of children desired, and In-law Avoidance Motivation) and the relevant DV(s), was ascertained, where such mediation was deemed plausible, utilizing a bootstrapping SPSS macro (Preacher & Hayes, 2008). The extent to which each such putative predictor found to be related to the DV moderated the relationship between the predictors outlined in my hypotheses (*i.e.*, bride's and groom's incomes, number of children desired, and In-law Avoidance Motivation) and the relevant DV(s), where such moderation was deemed plausible and the hypothesized predictor was found to be predictive, was ascertained using SPSS 23.

METHODS

Research Participants

184 brides-to-be (females) were recruited via the pan-Canadian bridal website “weddingbells.ca”, in exchange for a \$5 Amazon.com gift certificate if they submitted an email address (see advertisement description, Appendix A). Due to a weddingbells.ca representative informing me that the website's average click-through rate would only likely result in 57 participants participating over a three-month period in which a webpage advertisement I could run was displayed, a direct emailing of the same advertisement to weddingbells.ca registrants was decided upon. Doing so provided, additionally, some assurance that participants would actually be Canadian spouses-to-be, as registrants indicate they are such and registration would be of little interest to non-Canadian non-spouses-to-be. Approximately 20 such participants from each Canadian province were sought, in order to attain acceptable statistical power in OLS regression of a province-level predictor. Once-only participation from any given computer (enabled by *Qualtrics* programming) was allowed. Brides-to-be engaged to women were not prevented from taking the survey, and the sex of each participant's betrothed was queried.

The participants completed a survey entitled “Marriage: Hopes, Plans and Attitudes” (see Appendix C), which was presented in the form of a *Qualtrics* web interface.

Dependent Variables

In the analyses that follow, the principle dependent variable (DV 1) is the participant's answer to the question "Will you change, hyphenate (or otherwise combine), or retain your current surname when you marry? Please do *not* check "Retain", if you will be using your current surname as a middle name after marriage. (Please check one):". Participants answered one of "Change", "Hyphenate (or otherwise combine)", or "Retain".

The other dependent variable (DV 2) is general attitude toward marital surname retention and, by implication, marital surname change. Note that this was the dependent variable in my Master's survey work. Thus, its inclusion allowed for a later, direct replication of some of that work. Additionally, its inclusion allowed for assessment of whether endorsement of the general attitude item (DV 2) was related to actual retention/hyphenation/change decision (DV 1). DV 2 was measured using the 6-point Likert-scale item: "In general, women should retain their birth names" with anchors of *strongly disagree* (1) and *strongly agree* (6).

Predictor and Control Variables

Demographic and family variables

Eleven items, in addition to DV 2, measured attitudes concerning marital surname retention, hyphenation, and change (see Table 4.1). Each such item was scored on a 6-point Likert-type scale, with anchors of 1- "strongly disagree" and 6 - "strongly agree". Analysis of these items will consist of discovering, to the extent possible, whether participants' approval of marital surname change as queried by DV 2, is consistent or inconsistent with other general attitudes concerning the practice.

Five items were created in my Masters-level work to tap attitudes to in-laws (Table 4.2). Each was re-used in the current replication. All five were 6-point Likert-type scale items, using the same anchors as the items tapping marital surname change attitude. Statistical associations were assessed between these items and each of the DVs. They were additionally subjected to an exploratory factor analysis, and a two-factor confirmatory factor analysis (CFA). One of the two CFA factors, based on previous, unpublished, Masters-level work which the current study largely seeks to replicate, indicates antipathy toward in-laws and desire they not be involved with future children (*In-law Avoidance Motivation*, discussed

above and of relevance to Hypothesis 3). The other indicates expectation of investment in herself/her spouse plus their future children from her in-laws (called *Motivation to obtain resources from in-laws*).

Other survey items query any current cohabitation with the romantic partner, childbearing/childbearing plans, future residence, religion, frequency of religious service attendance, closeness to each parent, and whether the participant's own mother had undergone marital surname change to that of her father (see Appendix C). These items are as used in my Master's level survey work. Added, were the ethnic background or race of the participant's fiancé(e), level of educational attainment, and income of the participant and her fiancé(e). The educational attainment and income questions would not have been applicable to the undergraduate participants, only one of whom was engaged, none of whom had ever been married, and all of whom had not yet completed their educations. Also added, was a question as to whether the participant will be having a destination wedding, as follows: "Will your wedding be a destination wedding—that is are you getting married far from home?". What a "destination wedding" is was not further defined, due to concerns over survey length, and the fact that the website the participants were all registered with, weddingbells.ca, has a webpage dedicated to such weddings (www.weddingbells.ca/travel/destination-weddings/). Thus it was presumed participants would be familiar with what destinations weddings are. The inclusion of this item was designed to allow for testing of whether destination brides differ from other brides in income and in how frequently they retain/hyphenate their surname at marriage. Such a test was thought to be important, in order to attempt to assess whether the fact the brides in Study 1 had all been destination brides affected their rate of retention/hyphenation, making them unrepresentative of brides in general. Finally, a question each as to the likelihood of anticipated support with any future children by each of the participant's own parents was asked, at the suggestion of an anonymous colleague.

In-law attitudes

The same five items that addressed attitudes toward in-laws in my Master's survey work will be used again. Each is a Likert scale item with anchors *strongly disagree* (1) and *strongly agree* (6). See Appendix C under "In-laws" for these items.

Statistical Method

Statistical analyses were conducted using SPSS 22.0 or higher, and MPlus 5.0 or higher (CFA analysis, only). As stated, the same five items that addressed attitudes toward in-laws in my Master's survey work were re-used. These items were assessed for association with the dependent variables. The six-point Likert scales measuring attitude were treated as interval scales (Floyd & Widaman, 1995). CFAs of the items from the In-laws attitude section of the survey were performed, in order to assess fit of the data to the two previously found (under exploratory factor analysis, as part of the above-noted unpublished M.Sc. work) factors of in-law attitude: *In-law avoidance motivation* and *Motivation to obtain resources from in-laws*.

EFA of these items was performed, due to differences previously found to impact marital surnaming decision (*e.g.*, differences in age, shown to be related to marital surname decision, *e.g.*, MacEacheron, 2011) which existed between the participants in the sample from which the factors for the CFA were derived, and the current one. Assuming components produced would possess simple structure and low factorial complexity (*i.e.*, no item loading on two components with same-sign weights greater than 0.40), and be conceptually coherent, no rotation was planned. Only items with weights of 0.40 or higher were considered to load on a given component (see generally Norman & Streiner, 2008). The basis for presentation of components herein, made *a priori*, were visual examination of Scree plot (Norman & Streiner, 2008) and possession of an Eigenvalue equal to or greater than 1.50. Factor scores for the factor best approximating *In-law Avoidance Motivation* were computed, to allow for replication of the focal regression of this survey (see above). The maximum number of variables subjected to a factor analysis never exceeded 5, and with 164 subjects there were therefore approximately 33 subjects per predictor variable (acceptable according to Norman & Streiner, 2008).

Assuming one of the components produced possessed at least three items and was predictive of one of the DVs, its inclusion in a regression, alongside all other predictors, was planned. This was planned, in order to test Hypothesis 3, controlling for the effects of other variables associated with the DVs.

General Attitudes Related to Marriage:

As discussed, as the ultimate result of a suggestion from a committee member, the Attitudes Toward Feminism and the Women's Movement Scale (Fassinger, 1994), a 16-item instrument of Cochran and Peplau (1985) measuring autonomy and sociotropy, and Lambert and Raichle's (2000) Liberal-Conservative Self-Report Scale were added to the survey. Greater scores on each (sub-)scale indicate greater endorsement of the subject of the (sub-)scale.

RESULTS

Descriptive Statistics

Brides-to-be primarily from across western and central Canada ($N = 184$) were surveyed as to whether they would undergo marital surname change. Usable data were obtained from British Columbia ($n = 19$: 42.1% retaining/hyphenating), Alberta ($n = 23$: 21.7% retaining/hyphenating), Saskatchewan ($n = 3$, 1 woman retaining/hyphenating), Manitoba ($n = 26$: 19.2% retaining/hyphenating), Ontario ($n = 82$: 34.1% retaining/hyphenating), Quebec ($n = 14$: 71.4% retaining/hyphenating), New Brunswick ($n = 1$: woman not retaining/hyphenating), and Nova Scotia ($n = 5$: 1 woman retaining/hyphenating). Discounting Quebec where, as noted, legal, marital surname change is not permitted, as well as provinces from which fewer than 20 brides-to-be hailed, there was not a significant inter-provincial variation overall in retention/hyphenation of surname: $\chi^2_{(3)} = 4.10$, $n = 150$, $p = ns$. Even British Columbia, with the highest rate of retention/hyphenation, did not differ from the other provinces not including Quebec from which at least 20 brides hailed (data collapsed together), in retention/hyphenation frequency: $\chi^2_{(1)} = 1.34$, $n = 150$, $p = ns$.

Demographic characteristics of sample

As noted, brides-to-be engaged to women were not prevented from taking the survey, and the sex of each participant's betrothed was queried. In 33.0 % of cases ($n = 61$ out of $N = 185$, with 1 participant declining to answer) it was stated to be female. Note that weddingbells.ca, the registrants of which were sampled via the survey, is based on and affiliated with *Weddingbells* the magazine. The edition of that magazine published during the time of the survey (Fall & Winter 2015: Toronto and Greater Ontario edition) profiled only

one same-sex wedding out of a total of 20 real weddings profiled. That wedding was, additionally, of two men. That fact, along with the fact that lesbians and bisexual women comprise less than 33% of the female population (with 5.0 % of Canadian women polled citing self-identification as homosexual, bisexual, or transgendered: Blaze Carlson, 2012) suggest, however, that at least some participants reporting a female fiancée may actually have had a male fiancé.

Regardless, in addition to analyzing the complete sample, following comments by a thesis examiner, these two groups of brides were separately analyzed in all planned analyses, and their scoring on all reported variables compared. The sole exceptions to this practice occurred where numbers within a category (*e.g.*, currently coresiding with fiancé(e) versus not, separately for women marrying men and/or women marrying women) would render such statistical analysis inadequately powered to even detect large effect sizes, and/or repeating the analysis only on the larger of the two sub-samples of interest (*i.e.*, women engaged to men) would not provide useful data. Only where brides reporting same- versus different-sex fiancé(e) showed a different pattern of results in any such planned analysis (*i.e.*, a significant relationship where none was observed in the complete sample, a non-significant relationship where a significant one was observed in the complete sample, or a significant relationship that was opposite in sign to a significant relationship found in the complete sample) is that noted in the text other than parenthetically or via footnote.

Note that of those participants who emailed the author to claim their gift certificate compensation for participation, all either appeared to the author to (1) have female gendered first names and/or (2) be female based on the photograph, if any, that accompanied their email. Thus, it appeared grooms-to-be entering opposite-sex marriages had not completed the survey, and reported their betrotheds as female.

Brides-to-be ranged in age from 20 to 60 years ($N = 184$, mean = 30.02 ± 7.10 years). Age at marriage ranged from 22 to 62 years ($n = 174$, mean = 30.81 ± 6.90 years). Reported income of brides-to-be spanned the ranges of “\$0-\$20,000” to “over \$100,000” annually ($N = 184$ including $n = 21$ electing not to answer, median among those answering was “\$41,000-\$60,000”). Reported incomes of fiancé(e)s spanned the same ranges ($N = 184$ including $n = 23$ electing not to answer, median among those answering was also “\$41,000-\$60,000”). In

72 of the $N = 159$ couples the income data for both members of which were provided, the spouse-to-be was stated to earn (or to be expecting to earn, if a student) a higher bracket of income (from those provided) than the participant. In 17 of these 161 couples, the bride-to-be was stated to earn (or to be expecting to earn, if a student) a higher bracket of income than her spouse-to-be.

Participants were asked their ethnicity/race or ethnicities/races, as well as that/those of their fiancé(e)s. Responses were categorized using U.S. Census racial designations (*e.g.*, United States Census Bureau, 2013), as well as Hispanic/Latino/Latina, and “Canadian” (where this was the sole “ethnicity” cited by the participant). Note that “Caribbean”, “West Indian”, “Jamaican” and “African” were coded as “African-American/Black”, and “Guatemalan” and “Ecuadorian” were coded as “Hispanic/Latino/Latina”. Out of 175 participants providing data, the following number reported each of the following ethnicities/races: 2 (1.1 %) African-American/Black; 18 (9.7 %) Asian; 138 (74.6 %) White; 1 (0.50 %) Hispanic/Latino/Latina; 10 (5.4 %) Bi-/Multi-Racial; and 5 (2.7 %) “Canadian”. One participant stated she preferred not to answer. Out of the 175 participants providing data concerning their fiancé(e)s’ ethnicity/ethnicities, the following number reported each of the following ethnicities: 3 (1.6 %) African-American/Black; 15 (8.1 %) Asian; 140 (75.7 %) White; 1 (0.5 %) American Indian; 2 (1.1 %) Hispanic/Latino/Latina; 7 (3.8 %) Bi-/Multi-Racial; and 6 (3.2 %) “Canadian”. One participant stated she preferred not to answer. Finally, one participant stated that she and her fiancé(e)s’ ethnicity was “Brown”: their ethnicities were not coded, due to uncertainty regarding what that meant. (They were, however, coded as having the same ethnicity.) Note that classification of participants and their fiancé(e)s by country of origin or culture rather than by the above racial designations, if performed, would have resulted in data from too few participants and fiancé(e)s to perform the analyses that follow at adequate power.

Participants were also coded as to whether each and her fiancé(e) belonged to the same ethnicity/ethnicities or not, where usable ethnicity data was provided for each member of the couple. Where each member belonged (only) to the same racial group or, in the case of Bi-/Multi-Racial individuals, both/all of the same racial groups, they were coded as being of same ethnicity/ethnicities. In all other cases they were coded as being of different ethnicity/ethnicities. Note that where a participant cited herself and her fiancé(e) both as

“Canadian”, they were coded as being of the same ethnicity. Of the $n = 175$ participants providing usable data concerning themselves and their betrothed, 27 (15.4 %) were of different ethnicity/ethnicities, and 148 (84.6 %) were of the same ethnicity/ethnicities.

Participants provided their highest level of completed education, from a list of options. Those chosen ranged from “some high school” to “Professional degree”. Of the $n = 176$ providing data, each of the following levels of education was reported as completed by the following number of participants: “some high school”, 2 (1.1 %); “high school diploma”, 13 (7.0 %); “some community college/CÉGEP”⁹, 14 (7.6 %); “community college/CÉGEP diploma”, 25 (13.5 %); “some university”, 12 (6.5 %); “Bachelor’s degree”, 75 (40.5 %); “Master’s degree”, 22 (11.9 %); “PhD”, 3 (1.6 %); and “Professional degree”, 10 (5.4 %). 18 (9.8 %) of the 184 participants reported currently being students. One of the 184 participants reported neither student nor non-student status. 14 (7.6 %) of the 184 participants reported their fiancé(e) as being a student, with one not reporting the fiancé(e)’s student/non-student status.

Participants indicated whether or not they were currently living with their fiancé(e)s. Out of the $n = 177$ providing data, 41 (22.2 %) indicated they were not currently co-residing, while 136 (73.5 %) indicated they were. Note that in cases in which participants chose none of the sole tick options of “living with a commonlaw union partner”, “living with a fiancé(e)”, or “engaged, not coresiding”, and stated they were “living with parents”, “engaged and will be moving in together well in advance of our wedding”, or “split”, they were coded as not coresiding with their fiancé(e)s. The sole remaining participant providing data on this variable who chose none of the tick options stated she was “Living with family and fiance”: She was coded as coresiding with her fiancé(e). Participants reported whether their current engagement was to an individual who would be their first, second, third, or fourth or higher order spouse. Of the $n = 177$ providing data, 169 (91.4 %) indicated that this was to be their first marriage, 8 (4.3 %) indicated that it was to be their second marriage, and none indicated a higher-order marriage.

Participants entered text in response to the question “What is your religious affiliation?” Of those answering ($n = 171$), 91 reported themselves as Christian (49.2 %), 3 as

⁹ CÉGEP, or *Collège d’enseignement général et professionnel*, is a Quebec-only education level preparatory for university, similar to that of community college elsewhere in Canada (e.g., Quebec *General and Vocational Colleges Act*, c-29, as amended).

Buddhist (1.6 %), 2 as Pagan (1.1 %), 1 each as Hindu, Muslim, and Jewish (0.5 % each), 62 as Atheist, Agnostic, no affiliation, or not applicable (33.5 %), and 9 as something else not implying a denomination (*e.g.*, “spiritual”: 4.9 %). Participants were asked to choose one of the following four responses as their frequency of attendance at religious services. Each response is followed by the number (and percentage) of participants indicating it: “weekly or more often”, 17 (9.2 %); “monthly”, 14 (7.6 %); “once or twice a year”, 36 (19.5 %); and “never or almost never”, 109 (58.9 %).

The bride-to-be’s own parents

Level of emotional closeness to father ranged from “1 – Not at all close” to “6 – Very close” (anchors on a 6-point Likert-type scale: $n = 182$ including 17 who rated the question as not applicable: among those answering, mean = 4.57 ± 1.63). Level of emotional closeness to mothers also ranged from 1 to 6, on the same scale ($n = 182$ including 4 who rated the question as not applicable: among those answering, mean = 5.22 ± 1.23). Level of assistance with any future children expected from the bride-to-be’s own father ranged from “1 – Not at all likely” to “6 – Very likely” (anchors on a 6-point Likert-type scale: $n = 171$ including 25 who rated the question as not applicable: among those answering, mean = 4.38 ± 1.85). Level of assistance with any future children expected from the bride-to-be’s own mother was rated using the same scale, and possessed the same range ($n = 171$ including 13 who rated the question as not applicable: among those answering, mean = 5.04 ± 1.50).

Participants were asked whether their mothers had taken their fathers’ surnames. Out of 179 participants answering the question (6 did not), 34 (18.4 %) reported their mother had not, and 145 (78.4 %) reported that she had.

Attitude measures

Participants responded to the item “How much, if at all, would you say women in your area compete with each other to find the best husband that they can?” on a 7-point Likert type scale with anchors 1 - “Not at all” to 7 - “A great deal”. Responses represented the full scale range, with mean = 3.11 ± 1.80 ($n = 176$ participants answering the item).

Brides’-to-be self-ratings as to how “conservative” they were, ranged from “0 – not at all conservative” to “10 – extremely conservative” (anchors on an 11-point Likert-type scale:

$n = 164$, mean = 3.62 ± 2.36). On a similar Likert-type scale, participants self-rated how “liberal” they were: mean = 7.05 ± 2.32 ($n = 164$). Finally, also on a similar scale, brides’-to-be self-ratings of feminist identification ranged from 0 to 10 ($n = 164$, mean = 5.52 ± 2.56). Attitudes Toward Feminism and the Women’s Movement Scale (Fassinger, 1994) scores ranged from 22 to 49 (possible range is from 1 to 50, with greater scores indicating more favourable attitudes), $n = 159$, mean = 35.24 ± 5.48 . Note that brides-to-be reporting a female fiancée were marginally lower than brides-to-be reporting a male fiancé, in both feminist identification ($M_{\text{same-sex fiancée}} = 5.02$, $SD = 2.39$, $n = 52$; $M_{\text{different-sex fiancé}} = 5.76$, $SD = 2.61$, $n = 112$: $t_{(162)} = -1.73$, $p = .085$, $d = .27$ or small) and Attitudes Toward Feminism and the Women’s Movement Scale ($M_{\text{same-sex fiancée}} = 34.16$, $SD = 5.50$, $n = 50$; $M_{\text{different-sex fiancé}} = 35.73$, $SD = 5.42$, $n = 109$: $t_{(157)} = -1.69$, $d = .30$ or small). The effect sizes, however, were small, while statistical power was adequate only to detect large effect sizes: thus, these last results must be viewed with caution.

The Cochran and Peplau (1985) Sociotropy scale is comprised of Egalitarian Autonomy and Dyadic Attachment sub-scales. Scores on each of these can range from 8 to 72, with greater scores representing greater such autonomy and attachment, respectively. Scores on the former sub-scale ranged from 32 to 72, $n = 155$, mean = 35.24 ± 5.48 . Scores on the latter sub-scale ranged from 34 to 72, $n = 154$, mean = 62.45 ± 7.42 . These two subscales’ correlation with one another was $r = .46$ ($n = 154$, $p = .000$, r^2 or proportion variance accounted for of .21).

Note that results as to attitude to women’s marital surname retention/hyphenation versus change and to future in-laws will be discussed below.

Destination weddings

Participants indicated whether they would be getting married via a destination wedding. Of the $n = 174$ responding, 38 (20.5 %) indicated they would, and 136 (73.5 %) indicated they would not.

Residence after marriage

Participants were given various options to check off, to indicate where they and their spouses would live after getting married, relative to her own/the spouse’s workplace, and her own/the spouse’s family’s community of residence. The frequencies of responses indicating

location near the spouse's workplace or family, versus anywhere else, were calculated. Of the $n = 174$ answering the question, 49 (26.5 %) indicated future residence to be near the spouse's workplace and/or family, while 125 (67.6 %) indicated residence would be elsewhere.

Childbearing/childbearing plans

Of the $n = 173$ answering the question, 22 (11.9 %) reported being mothers, and 151 (81.6 %) reported current childlessness. The number (and percentage) of participants, among those answering the question ($n = 165$), desiring each of the following number of children is as follows: 0 children, 15 (8.1 %); 1 child, 8 (1.4 %); 2 children, 93 (50.3 %); 3 children, 25 (13.5 %); 4 children, 21 (11.4 %); 5 children, 2 (1.1 %); and 6 children, 1 (0.5 %). The average number of children desired was 2.24 ± 1.11 . Finally, participants were asked "If you have no children now but want/intend to, at what age would you like to have your first?" Of the $n = 140$ providing valid data, that age ranged from 20 to 42 years (mean = 30.43 ± 2.99). (Two entries of 13 and one of 120 years were considered to be mistaken entries, and thus invalid.)

Testing of Hypotheses

Participants were asked (DV 1) "Will you change, hyphenate (or otherwise combine), or retain your current surname when you marry?" Of the $n = 174$ responding, 115 (62.2 %) indicated they would change, 18 (9.7 %) indicated they would hyphenate or otherwise combine, and 41 (22.2 %) indicated they would retain their surnames. Thus, a total of 59 participants (33.9 %) indicated they would retain/hyphenate. The other DV consisted of agreement with the item "In general, women should retain their birth names [at marriage]". The range of answers to this item was from 1 - "Strongly disagree" to 6 - "Strongly agree": mean was 3.13 ± 1.17 . Under t -test, the first DV was associated with the second ($t_{(165)} = 4.87, p < .001, d = .76$ or moderate to large), with participants who would retain/hyphenate reporting greater agreement with the item ($M_{\text{retainers/hyphenators}} = 3.70 \pm 1.18, n = 57; M_{\text{changers}} = 2.83 \pm 1.06, n = 110$).

Relationship of other attitudes concerning marital surnaming to DV 2

At least some of the potential predictors of surname retention/hyphenation versus

change and attitudes thereto as presented above, may not accord with participants' conscious or explicit attitudes thereto. It is difficult to see, for example, why a woman might cite high educational attainment as causal to her surname retention/hyphenation, if any. Women may have explicit attitudes, however, concerning marital surname change and retention/hyphenation that can be measured. These can be of use when attempting to understand why they make the marital surnaming decisions they do. Relationships between these items and DV 2, "In general, women should retain their birth surnames (at marriage)", may also shed light on the aptness of DV 2 as a measure of the attitude at issue. Table 4.1 contains all items queried concerning participants' attitudes towards women's surnames after marriage, plus average rating ($\pm SD$), relationship to decision to retain/hyphenate versus change surname (DV 1), and correlation with DV 2, for each. Nine of the items correlated significantly with DV 1. Note that the range of responses for each item represented the entire, possible range (1 - 6: $n = 167$). Finally, note that participants reporting that their betrothed was of the same sex endorsed the statement "It's better for children if their parents use the same last name" more than did participants reporting a different-sex betrothed ($M_{\text{same-sex fiancée}} = 4.58, SD = 1.52, n = 53$; $M_{\text{different-sex fiancé}} = 3.82, SD = 1.73, n = 114$: $t_{(165)} = -2.75, p = .007, d = .43$ or small). This also happened for the item "A married couple's unity is symbolized and displayed to others by a shared last name" ($M_{\text{same-sex fiancée}} = 3.66, SD = 1.82, n = 53$; $M_{\text{different-sex fiancé}} = 3.08, SD = 1.71, n = 114$: $t_{(165)} = -2.00, p = .047, d = .31$ or small). Given these t -tests were adequately powered to detect large effect sizes only, however, these results must be viewed with caution.

The 12 items possessed a Cronbach's α of .68. An Exploratory Factor Analysis of all 12 items produced two components with Eigenvalues of at least 1.5 (3.40 and 2.68: 50.72% total variance accounted for). Only "If the "hyphenation solution" is adopted, both the man and the woman should use the hyphenated name" failed to load at at least 0.40 on either factor. Clean factor loading (with no factor item loading being greater than .4 and of the same sign) and simple structure were observed. (The same pattern of results herein from the EFA performed on the full sample were also seen on an EFA performed on the subsample of women engaged to men. According to Norman & Streiner, 2008, at $n = 53$, too few women betrothed to women answered the 12 scale questions to allow for separate such factor analysis of the responses of these participants.)

Items loading on Factor 1 were “A wife who changes her name to that of her husband should stick to that change (unless she gets divorced)” (-.51), “In general, women should retain their birth names” (.72: DV 2), “The equality of marriage partners is symbolized and displayed to others by the wife’s retaining her birth name” (.67), “Loss of a portion of one’s personal identity occurs with surname change” (.69), “Loss of cultural/ethnic identity occurs with surname change” (.64), “It is best for children if both parents keep their surnames” (.57), and “Simply keeping her birth name is a better solution for a professional woman than hyphenation” (.64). Items loading on Factor 2 were “A wife who changes her name to that of her husband should stick to that change (unless she gets divorced)” (.58), “It’s better for children if their parents use the same last name” (.77), “A married couple’s unity is symbolized and displayed to others by a shared last name” (.74), “If a woman has been married before and her last name is that of her former partner, it is best if she takes her new partner’s surname” (.69), and “The “hyphenation solution” is less suitable for couples who plan to have children than for those who do not” (.58). Factor 1 possessed a Cronbach’s $\alpha = .65$: Factor 2 possessed a Cronbach’s $\alpha = .78$. These two factors did not reflect any clear, distinct (coherent) themes, and will not be further analyzed.

Table 4.1. Average (\pm SD) endorsement of items concerning surname retention or change, associations (assessed via t -test) with DV 1 (retaining/hyphenating versus changing surname at marriage), and correlations with endorsement of “In general, women should retain their birth names”. Note that negative t values represent greater endorsement of the given item among brides-to-be retaining or hyphenating surname. ** $p < .01$, *** $p < .001$

Item	Mean \pm S.D.	t	Pearson r
In general, women should retain their birth names.	3.13 \pm 1.17	-4.80***	
The equality of marriage partners is symbolized and displayed to others by the wife’s retaining her birth name.	2.59 \pm 1.26	-3.16**	.48***
It is best for children if both parents keep their surnames.	2.48 \pm 1.26	-2.94**	.34***
If the “hyphenation solution” is adopted, both the man and the woman should use the hyphenated name.	3.24 \pm 1.62	-1.03	.15*
Simply keeping her birth name is a better solution for a professional woman than hyphenation.	3.11 \pm 1.55	-3.60***	.48***
Loss of a portion of one’s personal identity occurs with surname change.	2.88 \pm 1.54	-4.16***	.46***
If a woman has been married before and her last name is that of her former partner, it is best if she takes her new partner’s surname.	4.41 \pm 1.48	2.51*	-.10
A wife who changes her name to that of her husband should stick to that change (unless she gets divorced).	4.51 \pm 1.57	4.23***	-.20**
It’s better for children if their parents use the same last name.	4.07 \pm 1.70	6.69***	-.20**
A married couples unity is symbolized and displayed to others by a shared last name.	3.26 \pm 1.76	6.15***	-.26**
The “hyphenation solution” is less suitable for couples who plan to have children than for those who do not.	2.65 \pm 1.38	-.07	.13
Loss of cultural/ethnic identity occurs with surname change.	2.74 \pm 1.57	-3.93***	.31***

Hypothesis 1a: individual women’s own income and that of their grooms are predictive of these women’s surname retention/hyphenation

In the complete sample, brides-to-be who had greater income bracket or, for students, greater anticipated income bracket were more likely to either retain or hyphenate rather than change surname, as predicted ($t_{(151)} = 1.82$, $n = 153$, $p = .04$, $d = .30$ or small: note testing was 1-tailed). Among participants engaged to men, only, personal income bracket (positively) predicted retention/hyphenation (mean yearly income of those changing of 2.72, mean yearly income of those retaining/hyphenating of 3.14, where 1 = \$0-\$20,000, 2 = \$21,000-\$40,000, 3 = \$41,000-\$60,000, 4 = \$61,000-\$80,000, 5 = \$81,000-\$100,000, and 6 = over \$100,000; $t_{(104)} = -1.72$, $n = 106$, $p = .04$, $d = .34$ or small). Both these analyses, however, were only adequately powered to detect large effect sizes. Thus, these results must

be viewed with caution.

Personal income cannot be taken as predictive among participants marrying women (mean yearly income of those changing of 2.79, mean yearly income of those retaining/hyphenating of 3.00 [same scale as just-noted]; $t_{(45)} = -.61, n = 47, p = ns$). In this last calculation, however, the sub-sample size only provides adequate statistical power to detect a large effect size.

Income of the fiancé(e) (or anticipated income, if he or she was a student), was not associated with this choice of the bride, under t -test: $t_{(150)} = -.21, n = 152, p = ns$. Whether the participant's fiancé(e) earned more (or, if a student, had greater anticipated income) than the participant or not, was tested for predictiveness of her retention/hyphenation versus change of surname. For participants the spouses-to-be of whom earned more, it had been speculated based on the results of Study 1, a greater rate of surname change would be found. This directional prediction (speculation) was shown to be true albeit marginally significant under one-sided Fisher's exact testing: $\chi^2_{(1)} = 2.44, n = 150, p = .08, \phi = .13$ (very small). It was, however, shown not to be true among women marrying women, only ($\chi^2_{(1)} = 1.86, n = 47, p = ns$), and among women marrying men, only ($\chi^2_{(1)} = .92, n = 103, p = ns$). Note, however, that this second-last analysis' sample size only rendered the analysis sufficiently powered to detect large effect sizes: the other analyses concerning greater spousal than participant income were adequately powered to detect moderate effect sizes (Cohen, 1992). Regardless, due to the absence of the just-noted finding made in the complete sample in either of the sub-samples, this result will not be discussed further.

For completeness, whether the participant herself earned more (or if she was a student, had greater anticipated income) or not was also similarly tested. 17 participants reported earning more than their fiancé(e)s. There was no association under Fisher's exact testing between whether brides-to-be earned more than their fiancé(e)s and whether the former retained/hyphenated versus changed surname (whether under 1-tailed or 2-tailed testing: $\chi^2_{(1)} = .10, df = 1, n = 150, p = ns$).

Analogous analyses were also performed with DV 2: level of endorsement of the statement "In general, women should retain their birth names (at marriage)". Brides-to-be of higher income division, when examined together regardless of the sex of their fiancé(e)s, were marginally more likely to endorse this DV, under one-tailed testing ($r = .13$ or small, n

= 148, $p = .06$, proportion variance accounted for $r^2 = .02$). This was not the case, however, when examining just women marrying men ($r = .14$, $n = 104$, $p = ns$). Income of the participant's fiancé(e), when brides-to-be marrying both male and female fiancé(e)s were considered together, was not correlated with bride-to-be endorsement of the statement: $r = .03$, $n = 146$, $p = ns$. (There was also no significant correlation when considering just brides-to-be marrying women [$r = .03$, $n = 44$, $p = ns$], or brides-to-be marrying men [$r = .03$, $n = 102$, $p = ns$].) Neither whether the participant's spouse-to-be earned more than she ($t_{(144)} = -.19$, $n = 146$, $p = ns$), nor whether the participant earned more than her betrothed ($t_{(144)} = -.31$, $n = 146$, $p = ns$), was related to endorsement of the statement.

Thus, the hypothesis received partial support.

Hypothesis 1b: provincial women's and men's median income will predict marital surname retention/hyphenation among Canadian brides-to-be surveyed, at the provincial level

Data from at least 20 participants were only obtained for three provinces, with 19 from British Columbia, as above-noted. Thus, a correlation that would test this hypothesis must be considered very underpowered (see *e.g.*, Cohen, 1992). Despite this, this correlation was computed for completeness, using these four provinces' data. Median incomes for men and women by province of residence were not available, so average such incomes for 2009 based on data from Statistics Canada (Williams, 2010) were substituted. These were expressed in thousands of dollars per year. The correlation between such women's income by province and participants' rate of retention/hyphenation, also by province, was $r = -.15$, $p = ns$. The correlation between such men's income by province and participants' rate of retention/hyphenation, also by province, was $r = -.34$, $p = ns$. Considering the extreme underpowering of the relevant test of the hypothesis, however, it can be considered to have been neither tested nor supported.

Hypothesis 1c: only provinces in which household-to-household income equality is relatively high and women's median full-time and salaried income relatively high, will proportion of brides retaining/hyphenating surname be greater than in any other category of province

As noted, data from at least 20 participants were only obtained for three provinces (with 19 participants obtained from British Columbia). Thus, it is impossible to separate out

data from province(s) in which income equality and women's salaries are each low versus high, and this hypothesis is untestable. I do, however, attempt to partially test this hypothesis for the sake of completeness. I do this, by correlating income inequality in 2010 (Gini: Shape & Capeluck, 2012) with proportion of surname retention/hyphenation, both at the provincial level, among the four given provinces. Such a correlation must be considered very underpowered (see *e.g.*, Cohen, 1992). The correlation between these two variables was $r = .89$, $p = .11$ (ns).

Greater reported, local level of female-female competition for husbands among participants in some provinces, was proposed to relate to female incomes tending to be lower in these provinces (see Discussion, Study 1). That is, provinces with greater household Gini (*i.e.*, lesser household-to-household income equality, and hence, likely, a greater proportion of impecunious women in the population) were speculated to possess greater competition among women for (wealthy) husbands. As such, the correlation between such level of perceived competition and proportion of surname retention/hyphenation, both at the provincial level, was calculated as follows, again for the sake of completeness: $r = .86$, $p = .14$ (ns).

Considering the extreme underpowering of the attempted testing of the hypothesis, it can be considered to have been neither tested nor supported.

Hypothesis 2: Endorsement of the view that women should take the husband's surname at marriage will be predicted by the number of children desired

As noted, mean number of children desired was 2.24 ± 1.11 (range: 0 to 6). Note that a derived variable, number of future children desired, was also computed by subtracting number of existing children from total number desired. Its range was 0 to 6, with mean number of children desired of 2.05 ± 1.14 . In order for the above hypothesis to be supported, given that it is based on the idea that brides will particularly try to garner assistance from the future spouse for children *shared with* the future spouse (and, particularly, with a *male* spouse), in part via surname change, number of *future* children desired would need to be associated with degree of agreement with the dependent variable "In general, women should retain their birth names [at marriage]" (*i.e.*, by a negative correlation). This assumes, however, that already-existing children are not those of the participant's fiancé: something not discernible from the data.

The theoretical basis for this posited association, however, does not clearly apply to women marrying women, who would like to have children in future (presumably, to be co-parented by their fiancées). The reasons for this, are (1) it cannot be known via the current survey, in such cases, to which spouse, if either, the future child(ren) would be genetically related, and (2) as contrasted to the situation observed in opposite-sex marriages, the child(ren) of the marriage would not (absent a kinsman of one spouse acting as biological father to the biological child of the other spouse) be genetically related to both spouses. Thus it is unclear, in the case of women marrying women, which spouse might seek strategically to change her surname to that of her spouse, in order to potentially better ensure investment in her own future, genetic children from the spouse and in-laws, given the presumably lesser incentive to invest in the child(ren) by these (here, due to lack of genetic relatedness). In other words it is unclear, for women marrying women, whether the bride taking the survey is the one, if any, between she and her spouse-to-be, who would be genetically related to any future children (making her spouse-to-be analogous to a husband-to-be, as the presumed less-certain investor in the child(ren)), or even whether, in the case of multiple future children, *each of* she and her fiancée would act as genetic parent to at least one co-parented child.

Finally, endorsement of the statement “In general, women should retain their birth names” would imply, for women marrying women, that both spouses-to-be within each couple should retain surname, and thus *neither* take the surname of the other. This would presumably be the case even if future children were genetically related to only one spouse-to-be in each couple. For these reasons, and since *both* spouses are usually genetically related to future children in opposite-sex marriages, it is unclear whether or how the predicted surname-changing or -retaining behaviour of women marrying men, depending on number of future children desired, could be sensibly applied to women marrying women within the current survey. Despite this, for completeness, the just-noted analysis was repeated for the sub-sample of women marrying women.

If the basis for the above hypothesis is sound, negative attitude to women’s changing of surname at marriage (versus retention/hyphenation) would seem to be better predictable by number of future children desired than by total number of children desired. Indeed, I had intended “number of children desired” to be interpreted as “number of future children

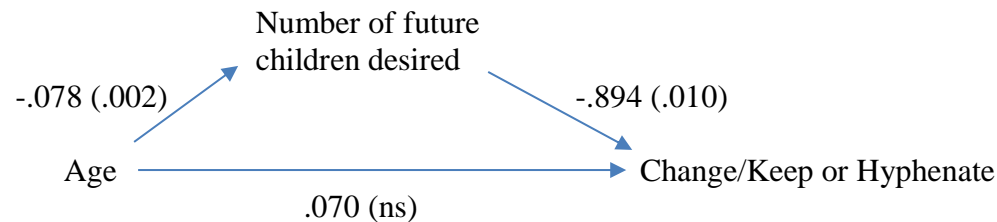
desired” in the relevant survey item. In the full sample, number of children desired was not related to agreement with the given statement when either total number of children desired ($r = -.08, n = 161, p = ns$) or number of future children desired ($r = -.06, n = 159, p = ns$) were considered. (This remained the case where women marrying men [for total children desired $r = -.10, n = 107, p = ns$: for future children desired; $r = -.10, n = 107, p = ns$] and women marrying women [for total children desired $r = -.05, n = 52, p = ns$: for future children desired; $r = .00, n = 52, p = ns$] were considered separately from each other.)

Number of (future) children one desires may be a better predictor of one’s own marital surname choice, however, than of general attitude to the practice. Thus, for this reason and for the sake of completeness, the predictiveness of surname change versus retention/hyphenation, of number of (future) children desired, was assessed. In the complete sample, number of children desired was not related to retention/hyphenation versus changing surname, when either total number of children desired ($t_{(163)} = -.04, n = 165, p = ns$) or number of future children desired ($t_{(163)} = .04, n = 165, p = ns$) were considered.

When women marrying men were considered in terms of own surname change versus retention/hyphenation, however, number of future children desired was marginally predictive of this choice (for women changing surname $M_{\text{future children desired}} = 2.19, s.d. = 0.93, n = 69$; for women retaining/hyphenating $M_{\text{future children desired}} = 1.88, s.d. = 1.22, n = 40$; $t_{(107)} = 1.51, n = 109, p = .06, d = .29$ or small). Given that this analysis, however, is only adequately powered to detect large effect sizes, this result must be viewed with caution. (Note that such an analysis on women marrying women would have been insufficiently powered even assuming a large effect size: Cohen, 1992.) Thus, only when using number of *future* children desired as predictor was the (non-hypothesized) DV of own surname change versus retention/hyphenation marginally predicted. Note that the fact this was only found among women engaged to men is viewed as non-problematic with respect to the underlying rationale for the hypotheses, for reasons outlined above regarding the posited utility of the signal of women’s marital surname change and its relationship to support of children genetically related to spouse and in-laws. It is also viewed as non-problematic, as all hypotheses were devised as testable on women marrying men, only, and not on women marrying women.

Due to decreasing fertility until menopause, at which point it is nil, a bride’s age is directly related to her ability to bear children. Bride’s age and (state-level, median women’s)

income were strong predictors of retention/hyphenation in Study 1, and income as a predictor received partial support under Hypothesis 1a. Since age in women predicts number of future children expectable, and such number might in turn predict attitude to or actual retention/hyphenation, whether number of children desired might act as a mediator between age and each of the two DVs was assessed. In the complete sample, among those providing relevant data ($n = 167$), no mediation occurred for the first DV, retention/hyphenation versus change of surname (C.I. of indirect effect of age on DV was $-.006$ to $.028$). Among women marrying men and providing relevant data ($n = 109$), mediation also did not occur (C.I. of indirect effect of age on DV was $-.135$ to $.005$). For women marrying women providing relevant data ($n = 56$), statistical power for this analysis was less than 0.8 and therefore inadequate (Fritz & MacKinnon, 2007). This analysis was run regardless, however, for the sake of completeness, though it will not be discussed further. The number of future children desired, among women engaged to women, acted as a full mediator between age and retention/hyphenation versus change of surname, with age negatively predicting number of future children desired which, in turn, negatively predicted surname change (versus hyphenation/retention):



Direct relationship between age and retention/hyphenation versus surname change parameter was $-.162$ ($p = .01$, C.I. = $-.284$ to $-.040$, Cox & Snell pseudo- $R^2 = .19$, Nagelkerke pseudo- $R^2 = .27$).

No mediation occurred for the second DV within the complete sample, either (C.I. of indirect effect of age on agreement with “In general, women should retain their birth names”, the second DV, was $-.003$ to $.012$; $n = 159$). (For the sub-sample of women marrying men, $n = 107$, mediation did not occur: C.I. of indirect effect as just noted was $-.018$ to $.054$. This was also the case where women marrying women who provided relevant data ($n = 52$) were separately analyzed: C.I. of the same indirect effect was $-.035$ to $.012$. Again, however, power in this last analysis was inadequate.)

Additionally, since income might affect how many children are desired, which in turn might affect attitude to or actual surname retention/hyphenation, whether a bride's-to-be income similarly acted as a mediator was also assessed. No mediation occurred for the first DV in the complete sample, retention/hyphenation versus change of surname ($n = 165$, C.I. of indirect effect of income on DV was $-.059$ to $.077$). (Among women marrying men providing relevant data, $n = 109$, mediation also did not occur: C.I. of indirect effect of putative mediator, number of future children desired, was $-.140$ to $.651$. Among women marrying women providing relevant data, $n = 56$, C.I. of indirect effect of income on DV was $-.017$ to $.014$.) No mediation occurred for the second DV in the complete sample, either ($n = 159$; C.I. of indirect effect of age on agreement with "In general, women should retain their birth names", the second DV, was $-.024$ to $.038$). (Among women marrying men, $n = 107$, such mediation also did not occur: C.I. of indirect effect of income on DV was $-.015$ to $.000$. Among women marrying women providing relevant data, $n = 52$, such mediation also did not occur: C.I. of the indirect effect of income on DV was $-.010$ to $.010$.)

Hypothesis 3: The degree to which a woman views contacts with in-laws negatively ("In-law Avoidance Motivation") will be predictive of the degree to which she endorses the practice of marital surname retention. Furthermore, I predict that the degree to which she expects financial assistance from in-laws will comprise a separate factor from In-Law Avoidance Motivation under Confirmatory Factor Analysis of both types of items.

Intercorrelations between items designed to tap attitudes toward and expectations of in-laws in the complete sample are given in Table 4.2. The only two differences between these results and those observed among just participants engaged to women, were that the significant correlations between "I would expect my in-laws to help me and my partner financially, if needed" on the one hand, and each of (1) "I want my in-laws to be involved with my children" ($r = .17$, $n = 52$, $p = ns$) and (2) "Marriages typically work best if you don't live too close to your in-laws" ($r = .05$, $n = 52$, $p = ns$) on the other hand, were not observed in women marrying women. Note that these two correlation calculations were adequately powered to detect large effect sizes, only, while the effect sizes of these correlations in the complete sample were small. Thus, the given calculations performed on data from women engaged to women may simply have been too underpowered to detect any

such actual correlation that may exist. The above, two correlations observed in women marrying women, additionally, were of the same (positive) sign as those just noted from the complete sample. Thus, these differences will not be further discussed. (There were no such differences between the pattern of correlations observed in the complete sample, and those in its sub-sample of women marrying men.)

The relationships of the in-law attitude items (Table 4.2) with the two DVs are as given in Table 4.3. No item was significantly associated with the first dependent variable (surname retention/hyphenation versus change). (This was the case in all of the complete sample, the portion of the sample engaged to women, and the portion of the sample engaged to men.) A (positive) association, however, was found between one item and the second dependent variable (tapping general attitude to women's marital surname retention/hyphenation) in the complete sample. This association with "Marriages work best if you don't live too close to your in-laws" was as predicted. That is, with less positive view of proximity to in-laws, greater approval of surname retention/hyphenation was expected ($r = .22$ or small, $n = 164$, $p = .005$, proportion variance accounted for $r^2 = .05$). Although this relationship was also observed among the portion of the sample engaged to women ($r = .33$, $n = 52$, $p = .02$, proportion variance accounted for $r^2 = .11$), it was not in the portion of the sample engaged to men ($r = .15$, $n = 112$, $p = .10$). The absence of an association between DV 2 and "In-laws are a big reason why the divorce rate is so high", however, is not as predicted. Additionally, none of the items concerning expectations of resource transfer from in-laws were related to the dependent variables.

Table 4.2. Intercorrelations of items concerning in-laws (in order of presentation). * $p < .05$; ** $p < .01$; *** $p < .001$

Items:	1	2	3	4	5
In-laws are a big reason why the divorce rate is so high.	-	-.31***	.02	.00	.49***
I want my in-laws to be involved with my children.	-.31***	-	.29***	.20*	-.35***
I would expect my in-laws to include my children in their wills.	.02	.29***	-	.54***	.07
I would expect my in-laws to help me and my partner financially, if needed.	.00	.20*	.54***	-	.24**
Marriages typically work best if you don't live too close to your in-laws.	.49***	-.35***	.07	.24**	-

Table 4.3. Agreement with statements concerning in-laws (ordered by mean level of agreement), the association of each with first dependent variable (retaining/hyphenating versus changing surname at marriage), and bivariate correlations with second dependent variable (endorsement of statement "In general, women should retain their birth names"). Negative t -values represent a trend of greater agreement with item for brides retaining/hyphenating. * $p < .05$; ** $p < .01$

Items concerning in-laws	Level of Agreement (Mean±S.D.)	t	Correlation with "In general, women should retain their birth names"
I want my in-laws to be involved with my children	5.01 ± 1.29	.17	-.06
I would expect my in-laws to include my children in their wills.	4.07 ± 1.60	-.50	-.07
I would expect my in-laws to help me and my partner financially, if needed	3.16 ± 1.61	-.96	.04
Marriages typically work best if you don't live too close to your in-laws	2.96 ± 1.50	.14	.22**
In-laws are a big reason why the divorce rate is so high	2.76 ± 1.43	-.24	.11

The Cronbach's α for these items was .46. The first three items from Table 4.3, above, represent positive views of relationships with in-laws. Each of these three was either uncorrelated or negatively correlated with the other two, as expected, with one exception: "I would expect my in-laws to help me and my partner financially, if needed" was positively correlated with "Marriages typically work best if you don't live too close to your in-laws" ($r = .24$, $n = 164$, $p = .001$, proportion variance accounted for $r^2 = .06$ ¹⁰). An

¹⁰ Analysis results are those from complete sample: see above for differing results observed with sub-sample of women marrying women.

exploratory factor analysis was calculated, resulting in, arguably, conceptually coherent factors with Eigenvalues of 1.5 or greater, and simple structure.¹¹ For Factor 1 (Cronbach's $\alpha = .65$, Eigenvalue = 1.79), a large, positive loading occurred with the "positive" item "I want my in-laws to be involved with my children" (.78) and two large, negative loadings occurred with the "negative" items "In-laws are a big reason why the divorce rate is so high" (-.71) and "Marriages typically work best if you don't live too close to your in-laws" (-.68). This suggests that Factor 1 could be thought of as measuring positive evaluation of interactions with in-laws (hereinafter, *In-law Affiliation Motivation*). On Factor 2 (Cronbach's α uncalculable due to low number of items, Eigenvalue = 1.69), large, positive loadings were observed for the two "positive" items ("I would expect my in-laws to include my children in their wills", and "I would expect my in-laws to help me and my partner financially, if needed"), and for the "negative" item "Marriages typically work best if you don't live too close to your in-laws" (.54). This suggests that Factor 2 could be considered a measure of interest in financial help, only, to the married couple, but lack of other involvement with in-laws. These two factors accounted for 69.6% of the variance.

As noted, in previous, Masters-level, unpublished work, these same items concerning in-laws were administered to $N = 132$ female undergraduates, none of whom had ever married and the average age of whom was 18.75 ± 1.09 years. An unrotated EFA of these items administered to these participants, resulted in conceptually incoherent factors. A Varimax (orthogonal) rotation, however, yielded two factors, each possessing simple structure and potential interpretability. On Factor 1 (Cronbach's $\alpha = .58$, Eigenvalue = 1.64), large, positive loadings occurred with "Marriages work best if you don't live too close to your in-laws" (.80), "In-laws are a big reason why the divorce rate is so high" (.77), and "I want my in-laws to be involved with my children" (-.63). Thus, Factor 1 could be conceptualized as an *In-law Avoidance Motivation* measure. On Factor 2 (Cronbach's α not calculable due to low number of items, Eigenvalue = 1.57), large factor loadings (.82 and .85) occurred only with the two items concerning expectation of investment, though a positive loading that would exceed one acknowledged threshold for inclusion within a factor in which

¹¹ Although unrotated factor loadings did not follow the same pattern when participants engaged to men, only, were considered, Varimax rotated factor loadings for this portion of the sample did follow the same loading pattern as was observed in the Varimax rotated factor loadings of the complete sample. Number of participants engaged to women, at less than 50, was not sufficient for adequate powering of repetition of the EFA or CFA with this sub-sample (Barrett & Kline, 1981).

it appeared (.35), occurred for the item “I want my in-laws to be involved with my children”. (Note that simple structure is retained even if this final item is included in Factor 2, since its loading on Factor 1 is of opposite sign.)

On the advice of a colleague (personal communication, Paul Tremblay, 7 July 2016), since the EFA of these items as administered previously had undergone Varimax (orthogonal) rotation, the EFA of these items administered currently were also subjected to Varimax rotation, and the results then compared. After such rotation, two factors, and only two factors, similar to the two found previously in my Master’s work, were observed. The Rotated Component Matrix of these items’ two factors is as given in Table 4.4.

Table 4.4. Varimax Rotated Factor Matrix (factor loadings) of In-law items, in order of presentation, by execution (Master's level execution of 2008 or 2016 execution). High factor loadings (absolute values $\geq .40$) in bold face.

Items	2016 Execution		2008 Execution	
	Factor 1	Factor 2	Factor 1	Factor 2
In-laws are a big reason why the divorce rate is so high.	.79	.02	.77	.22
I want my in-laws to be involved with my children.	-.66	.44	-.63	.36
I would expect my in-laws to include my children in their wills.	-.04	.86	.07	.85
I would expect my in-laws to help me and my partner financially, if needed.	.10	.86	-.09	.82
Marriages typically work best if you don't live too close to your in-laws.	.84	.21	.80	-.05

Factor 1 in the current work was similar to Factor 1 (*In-law Avoidance Motivation*) in the Master's-level work, and Factor 2 in the current work was similar to Factor 2 (*Motivation to acquire resources from in-laws*) in the Master's-level work. These factors were similar in that, for each item, where loading had been high and positive, low and positive, high and negative, or low and negative in the previous work, it also had such value in the current work. The sole exception occurred with the loading of "I want my in-laws to be involved with my children" in the current work, in that it loaded on Factor 2 *above* the *a priori* chosen threshold of $|.40|$, while it loaded, with the same sign, somewhat below that threshold in the Master's-level work (.36). Thus, under EFA, the degree to which brides expected financial assistance from in-laws did comprise a separate factor from In-Law Avoidance Motivation, as occurred in the noted Masters-level work. Next, whether the factor model as produced under that Masters-level work is replicated with the present survey's data under Confirmatory Factor Analysis (*i.e.*, the second part of Hypothesis 3), is assessed.

A confirmatory factor analysis (CFA) using the data from the present execution of the study, of the just-noted results from my Masters-level work, was performed using MPlus v. 5. This CFA was of the full sample. No attempt was made to fit the data to the model (*e.g.*, by correlating residuals). $n = 164$ participants responded to the analyzed items

concerning in-laws. Since all data were collected using (the same) 6-point Likert scale, the data were treated as ordered categorical, and mean- and variance-adjusted weighted least squares (WLSMV) estimation was employed (see Kline, 2011). This analysis resulted in a residual covariance matrix that was non-positive definite, perhaps due to high correlation between two indicators (*i.e.*, non-latent predictor variables). These two indicators were “I would expect my in-laws to include my children in their wills”, and “I would expect my in-laws to help me and my partner financially, if needed” ($r = .54, p < .001$, proportion variance accounted for $r^2 = .29$). Due to there being too few indicators to allow one highly correlated with another to be dropped, however, an amended model could not be tested. Model estimation terminated normally. There were 16 free parameters. The chi-square test of model fit was highly significant ($\chi^2_{(4)} = 30.92, p < .0001$), providing evidence for inadequate fit of the model (Kline, 2011). The Root Mean Square Error of Approximation (RMSEA) was .20. Given that it was above 0.10, it may be considered too high to indicate adequacy of fit (but see Kenny, Kaniskan & McCoach, 2014, questioning the use of this fit index in models such as this, of low sample size and few degrees of freedom). Comparative Fit Index (CFI) was 0.83: since it was below 0.90, it may be considered unacceptably low to indicate adequate fit (Kline, 2011). The Standardized Root Mean Residual (SRMR) was 0.10. Since it exceeded 0.08, the fit of this model may be assessed as inadequate (Kline, 2011). Thus, the portion of Hypothesis 3 concerning confirmation of the Master’s-level work’s EFA via CFA was not supported.

The CFA as just-noted was repeated on the portion of the sample representing only women marrying men. (Note that it was not possible to do so with the sub-sample representing women marrying women, due to the size of this subsample not allowing for adequacy of statistical power: Barrett & Kline, 1981.) Again, no attempt was made to fit the data to the model (*e.g.*, by correlating residuals), data were treated as ordered categorical, and WLSMV estimation was employed. $n = 112$ participants responded to the analyzed items concerning in-laws. This analysis again resulted in a residual covariance matrix that was non-positive definite, perhaps, again, due to high correlation between the two indicators “I would expect my in-laws to include my children in their wills”, and “I would expect my in-laws to help me and my partner financially, if needed” ($r = .61, p < .001$). Again due to there being too few indicators to allow one highly correlated with

another to be dropped, however, an amended model could not be tested. Model estimation terminated normally. There were 16 free parameters. The chi-square test of model fit was highly significant ($\chi^2_{(4)} = 15.35, p = .004$), providing evidence for inadequate fit of the model (Kline, 2011). The Root Mean Square Error of Approximation (RMSEA) was .16. Given that it was above 0.10, it may be considered too high to indicate adequacy of fit (again, see Kenny, Kaniskan & McCoach, 2014, questioning the use of this fit index in models such as this, of low sample size and few degrees of freedom). Comparative Fit Index (CFI) was 0.91: since it was above 0.90, it may be considered to indicate adequate fit (Kline, 2011). The Standardized Root Mean Residual (SRMR) was 0.10. Since it exceeded 0.08, the fit of this model may be assessed as inadequate (Kline, 2011). Thus, most measures of model fit would assess it as inadequate. As such, the portion of Hypothesis 3 concerning confirmation of the Master's-level work's EFA via CFA was not supported, even when only data from participants marrying men were considered.

In the overall sample, the correlation between participants' unrotated Factor 1 scores (*In-law affiliation motivation*) and the dependent variable "In general, women should retain their birth names (at marriage)" was negative ($r = -.16$ (small), $n = 164, p = .02$, proportion variance accounted for $r^2 = .02$). The absolute magnitude of the correlation between the Varimax rotated version of that factor (*In-law avoidance motivation*) and this DV was also small though, as would be expected, positive ($r = .18$ (small), $n = 164, p = .02$, proportion variance accounted for $r^2 = .03$). This latter correlation, though positive, however, was not significant among women marrying men ($r = .13, n = 112, p = ns$). Note that it was inadequately powered to detect a small effect size (as was observed in the complete sample). Nevertheless, all hypotheses were designed for testing on data from women engaged to men. Thus, the results of these analyses provide only very limited support for the first part of Hypothesis 3: *The degree to which a woman views contacts with in-laws negatively ("In-law Avoidance Motivation") will be predictive of the degree to which she endorses the practice of marital surname retention.* That is, such support is limited to results from the full sample and the sub-sample of women engaged to women, only. As such, this hypothesis is considered unsupported.

Note that, under analogous analysis via t -test, *In-law avoidance motivation* scores in the complete sample were not associated with retention/hyphenation versus change ($t_{(162)} =$

.00, $n = 164$, $p = ns$). (This was also the case among both women marrying men ($t_{(110)} = .33$, $n = 112$, $p = ns$) and women marrying women ($t_{(50)} = -.62$, $n = 52$, $p = ns$.) Note that these results are from tests with adequate statistical power to detect large effect sizes, only.

Taken together, the above results do not support Hypothesis 3, in that, among women marrying men, desire for interactions with in-laws was not associated with general approval for surname retention, and, incidentally, also not associated with actual surname retention/hyphenation versus change. Though general approval of surname retention for brides was negatively correlated among sampled women marrying women with *In-law avoidance motivation*, it is unclear what that relationship might mean. That is so, as in a marriage between women, (a) bride's/brides' retention of surname may mean something quite different than it does in opposite-sex marriage. Thus, that evidence cannot be taken as either confirmatory or contradictory of Hypothesis 3.

In light of the potential value of in-laws for the benefit of grandchildren, I also assessed whether these measures were associated with the total and future number of children desired. In the complete sample I found a negative, marginally significant association between total number of children desired and (Varimax rotated) *In-law avoidance motivation* scores ($r = -.14$ or small, $n = 156$, $p = .08$, proportion of variance accounted for $r^2 = .02$). A marginally-significant, negative such relationship was also seen among women marrying women ($r = -.24$, $n = 51$, $p = .08$, proportion variance accounted for $r^2 = .06$), but not women marrying men ($r = -.08$, $n = 105$, $p = ns$). Thus, overall, brides who desired a greater total number of children tended to possess less *In-law avoidance motivation*, and this was also observed among women marrying women, but not women marrying men. The result in the overall sample is as would be expected, given my premise that women's marital surname change may be a tactic designed, in part, to enhance recruitment of resources from in-laws in favour of these women's children who are the grandchildren of the in-laws. This premise is seriously undermined, however, by the result not being seen among women marrying men, given that only the children of these may be expected to likely be the biological grandchildren of the women's in-laws. Note, additionally, that no significant correlation was found between total, *future*, number of children desired, and *In-law avoidance motivation* ($r = -.08$, $n = 156$, $p = ns$: this result also seen among women marrying women [$r = -.05$, $n = 51$, $p = ns$] and among women

marrying men [$r = -.09$, $n = 105$, $p = ns$]). Thus, even though *future* children of a woman engaged to a man may be assumed to be more likely than any other children she may have to be genetically related to him, and thus be the genetic grandchildren of her parents-in-law, *In-law avoidance motivation* was uncorrelated with this value. Thus, its correlation with total number of children desired (in the complete sample and among women engaged to women) will be treated as not tending to provide support to any underlying reasoning in this thesis, and will not be discussed further.

Additionally, I found an association between *future* number of children desired (*i.e.*, grandchildren of the participant's parents-in-law) and (Varimax rotated) Factor 2 (*Motivation to acquire resources from in-laws*) scores ($r = .22$, $n = 156$, $p = .005$, proportion variance accounted for $r^2 = .05$), in the full sample. This was not, however, the case among women marrying men ($r = .16$, $n = 105$, $p = .10$ [ns]). Number of future children desired was also positively correlated with (unrotated) *Interest in financial involvement, only, with in-laws* ($r = .22$ or small, $n = 156$, $p = .005$, proportion of variance accounted for $r^2 = .05$) in the full sample: this was additionally the case for women marrying women, only, assessed on their own ($r = .29$, $n = 51$, $p = .04$, proportion of variance accounted for $r^2 = .08$: for women marrying men, $r = .10$, $n = 105$, $p = ns$). Such positive correlations with *Motivation to acquire resources from in-laws*, however, will be treated as not tending to provide support to any underlying reasoning in this thesis, for reasons analogous to those just provided regarding correlations with *In-law Avoidance Motivation*. These results will not be discussed further. It may be of note, finally, that all correlational analyses concerning number of (future) children desired were adequately powered to detect moderate or greater effect sizes, while only small effect sizes, where significant results ensued at all, were found.

Could DV 1 be moderated, however, by the participant's income, or the fact that her betrothed earns more than she? That is, could *In-law affiliation motivation* predict marital surname change (to that of the in-laws), but only where the bride's income is great, and/or her betrothed does not earn more money than she? This was tested via two binary logistic regressions. The first used *In-law affiliation motivation* and bride income, as well as their interaction, as predictors. None of the predictors, including the interaction predictor, under this regression, proved predictive ($b_{\text{participant income}} = -.25$, $df = 1$; $b_{\text{In-law affiliation motivation}} = -.38$, $df = 1$; $b_{\text{interaction}} = .09$, $df = 1$: all p 's = ns). This regression also had unacceptably-low pseudo-

R^2 values (Cox & Snell R square = .02; Nagelkerke R square = .03). Thus the above moderation did not occur.

The second regression used *In-law affiliation motivation* plus the dichotomous variable of whether the participant's betrothed earns more than the participant, as well as the interaction of the two, as predictors. None of the predictors, including the interaction predictor, under this regression, proved predictive ($b_{\text{Betrothed Earns More}} = .23$, $df = 1$; $b_{\text{In-law affiliation motivation}} = -.05$, $df = 1$; $b_{\text{interaction}} = -.01$, $df = 1$: all p 's = ns). This regression also had unacceptably-low pseudo- R^2 values (Cox & Snell R square = .01; Nagelkerke R square = .02). Thus the above moderation did not occur.

Additional associations with surname retention/hyphenation versus change and attitude thereto

Certain variables other than those needed to test Hypotheses 1 to 3 were included in the instrument and tested for predictiveness of the DVs. Some of these were included, in part, since previous literature found associations between them and marital surname change/retention/hyphenation and/or attitude thereto (see Introduction). The remaining such variable, destination bride status, was measured in part because the author's work in Study 1 indicated the potential need to control for it. Please see *Descriptive Statistics*, above, for all such variables. Note that only such variables actually found to be associated with either DV will be generally cited below, for the sake of clarity and brevity. Note, additionally, that several variables, such as having been married before, were not assessable as predictors due to inadequate powering of the relevant statistical test. (All other variables' associations with both DVs are available upon request from the author.)

Significant associations with surname retention/hyphenation versus change (DV 1):

Brides-to-be who reported they would keep/hyphenate their surnames were older ($t_{(83)} = 3.15$, $n = 174$, $p = .002$, $d = .69$ or moderate), and would be older, perhaps unsurprisingly, on the date of their marriages ($t_{(85)} = 2.96$, $n = 174$, $p = .004$, $d = .64$ or moderate). These analysis must be interpreted with caution, however, given they were only adequately powered to detect *large* effect sizes. (For participants engaged to women, such analyses would not have been adequately powered to detect even large effect sizes, and so

results of these will not be reported: for participants engaged to men, direction, significance, and moderate effect size of result was the same as that in the complete sample.) Among all brides-to-be, a greater age at which they wanted to have their next child (*e.g.*, their first child, if they were currently childless), if any, was reported, among those who would keep/hyphenate their surnames ($t_{(136)} = 3.03, n = 138, p = .003, d = .52$ or moderate). Note that this was only marginally the case, however, for participants engaged to men ($t_{(92)} = -1.69, n = 94, p = .095, d = .35$ or small). Again, these analyses must be interpreted with caution, however, given they were only adequately powered to detect large effect sizes.

Brides-to-be who reported they would keep/hyphenate surname at marriage were emotionally closer to their fathers ($t_{(153)} = -4.02, n = 174, p = .000, d = -.65$ or moderate). Brides-to-be reporting they would keep or hyphenate their surnames also rated their fathers as more likely to help with any children ($t_{(142)} = -3.64, n = 171, p = .000, d = .56$ or moderate). In general, in the full sample (as well as among participants engaged to men and participants engaged to women), mothers of participants were rated as more likely to help with the participants' own children, where applicable, than were fathers of participants ($M_{\text{mother}} = 5.09 \pm 1.45, n = 145$ on 6-point scale with anchors 1 – “Not at all likely” and 6 – “Very likely”: $M_{\text{father}} = 4.45 \pm 1.84, n = 145$: paired sample $t_{(144)} = 4.90$, overall mean difference = $.64 \pm 1.58, p = .000$: d for dependent samples = $.38$ or moderate). Additionally, participants reported being closer to their mothers (5.22 ± 1.23 on a 6-point Likert type scale with anchors 1 – “Not at all close” and 6 - “Very close”) than to their fathers (4.57 ± 1.63): this difference was significant (paired $t_{(162)} = 6.25, n = 163, p < .000$).

In general, brides-to-be who reported they would retain/hyphenate their surnames were less politically conservative ($t_{(162)} = -3.60, n = 174, p = .000, d = .61$ or moderate). Note, however, that the given sample's size only provided adequate statistical power in the given analysis to detect large effect sizes, and so this result must be viewed with caution. In general, brides-to-be reporting surname retention/hyphenation were more politically liberal ($t_{(144)} = 4.82, n = 164, p = .000, d = .80$ or large). Retainers/hyphenators also rated as greater, local female-female competition for husbands ($t_{(171)} = -1.80, n = 174, p = .08, d = -.28$ or small). Note, additionally, that among only participants engaged to men, this difference was not significant ($t_{(115)} = -1.21, n = 117, p = \text{ns}$: power was inadequate to detect even large effect sizes in the sub-sample of women engaged to women, and so results

of this analysis will not be reported).

In the complete sample, brides-to-be reporting they would retain or hyphenate their surnames self-identified to a greater degree as feminists ($t_{(162)} = 4.33, n = 174, p = .000, d = .68$ or moderate). In the complete sample, brides-to-be reporting retention/hyphenation of surname also reported higher Attitudes Toward Feminism and the Women's Movement Scale (Fassinger, 1994) scores ($t_{(157)} = 2.63, n = 159, p = .009, d = .42$ or small).

In the complete sample, participants indicating they would retain or hyphenate surname had higher educational attainment (2-sided $\chi^2_{(3)} = 13.83, n = 174, p = .003, \text{phi} = .28$ or small to moderate, linear-by-linear association $\chi^2_{(1)} = 13.01, p < .001$).¹² Among women engaged to men, this result was also observed (2-sided $\chi^2_{(3)} = 12.20, n = 117, p = .007, \text{phi} = .32$ or moderate, linear-by-linear association $\chi^2_{(1)} = 10.94, p < .001$). This relationship, however, did not hold among participants marrying women (Fisher's exact test used due to low expected cell counts: Fisher's exact value = 1.96, $df = 3, n = 57, p = \text{ns}$, linear-by-linear association $\chi^2_{(1)} = 1.64, p = \text{ns}$). Note, however, that this sub-sample's size only provided sufficient statistical power to detect large effect sizes under this analysis and so must be viewed with caution: The other sub-sample's and the full sample's sizes, on the other hand, allowed for detection of moderate effect sizes, and small to moderate or moderate effect sizes were found in these.

The full sample was analyzed using chi-squared testing, to determine whether brides-to-be whose own mothers did not take their fathers' surnames were more likely to, in turn, not take those of their own spouses/whether brides-to-be whose own mothers did take their fathers' surnames were more likely to take those of their own spouses. Chi-squared (2-sided) testing showed that this was the case ($\chi^2_{(1)} = 7.74, n = 174, p = .008, \text{phi} = -.21$ or small). Since one cell in this analysis (and at least one in each of the analyses regarding brides' mother's own marital surname change that follow) had expected count less than 5, Fisher's exact test was also run, and its results preferred. This revealed the same direction of effect of the bride's mother's own marital surname change/lack of change to that of her father on that of the bride herself, albeit at differing levels of significance (2-sided $p = .008$,

¹² Note that prior to this and all subsequent calculations concerning educational attainment, some educational attainment levels were merged due to small numbers in each, to increase statistical power. This resulted in (some merged) educational attainment levels of less than high school/high school, Community college/CÉGEP, Bachelor's degree, and Master's/PhD/Professional degree.

1-sided $p = .006$). That is, brides whose own mothers had taken their father's surnames were more likely to report they would be taking those of their spouses, and brides whose own mothers had not taken their father's surnames were less likely to report they would be taking those of their spouses. When just women marrying women were considered such an effect was, however, not observed, whether using chi-squared testing ($\chi^2_{(2)} = 2.22, n = 57, p = ns$) or Fisher's exact chi-squared analysis (2- and 1-sided p 's = ns). Note, however, that these analyses performed on data from women engaged to women were only adequately powered assuming a large effect size, while the others are adequately powered assuming a moderate one (Cohen, 1992).

Perhaps of special interest given Dr. Aumer's suggestion of bride ethnicity/race or ethnicities/races and difference in these within the couple as predictors of marital surname change, is the fact that "White" participants did not differ from others (including those of bi-/multi-racial heritage including "White") in retention/hyphenation versus change of surname. (Note that no individual, non-"White" group numbered at least 20, so only the current comparison could be made.) That is, among participants indicating ethnicity, whether she was "White" or not did not predict retention/hyphenation versus change ($\chi^2_{(2)} = 2.08, n = 172, p = ns$). Whether the participant and her fiancé(e) were of the same ($n = 148$) or different ($n = 27$) ethnicity/race or ethnicities/races, if more than one was cited per participant or fiancé(e), was also non-predictive ($\chi^2_{(1)} = .28, n = 173, p = ns$). Under Dr. Aumer's posit regarding name change, where one cultural/racial group tends to be more powerful than another in a geographical area, and women from a less-powerful group marry into the more powerful one, those brides will be more likely than brides from the more powerful group to undergo marital surname change (to that of the more powerful group). Assuming "Whites" currently tend to be more powerful within Canada compared with other racial groups, a directional prediction, among brides marrying someone of (a) different racial group(s), is sensible. That is, it may be predicted that non-"White" brides whose betrotheds are "White" undergo marital surname change more often than other brides marrying inter-racially. This result was not found ($\chi^2_{(1)} = .94, n = 27$: Fisher's exact test used due to expected value of one cell being less than 5; $p = ns$). Note, however, that sub-sample size only rendered this analysis of sufficient statistical power to detect large effect sizes.

Given it was a concern in Study 1 that destination brides might retain/hyphenate surname more often than non-destination brides, it may also be of special interest that this variable was not predictive of DV 1 under chi-squared testing ($\chi^2_{(1)} = 2.54, n = 174, p = ns, \phi = .12$ or small: note that this testing was 2-sided). Since one cell in this analysis (and at least one in each of the analyses concerning destination brides and DV 1 among women marrying women and women marrying men) had expected count less than 5, Fisher's exact chi-square testing was also employed, and its results preferred. This test showed destination bride status as marginally predictive of surname retention/hyphenation (1-tailed $p = .08$). Neither among women marrying women ($\chi^2_{(1)} = .98, n = 57$, Fisher's exact one-sided $p = ns$: note that only large effect sizes detectable given sub-sample size) nor among women marrying men ($\chi^2_{(1)} = 2.05, n = 117$, Fisher's exact one-sided $p = ns$), however, was such a relationship observed. Thus, destination bride status as predictive of retention/hyphenation within the sub-group of women engaged to women or that of women engaged to men will not be further discussed. Additionally, the effect size in the full sample was small, while power was adequate only to detect moderate or greater effect sizes: thus, the result observed in the full sample under Fisher's exact testing must be viewed with caution. Destination brides also did not differ from other brides in income (one-tailed testing: $t_{(151)} = .47, n = 153, p = ns$). Destination brides were, however, older (one-tailed testing: $M_{\text{age destination brides}} = 32.50$ years, $M_{\text{age non-destination brides}} = 29.24$ years, $n = 174, t_{(46)} = -2.06, p = .02, d = .61$ or moderate: note, however, that the sample size only afforded sufficient power for detection of a *large* effect).

Significant associations with "In general, women should retain their birth names" (DV 2):

Age was marginally significantly predictive of endorsement of DV 2 in the complete sample (one-tailed testing: $r = .12$ or small, $n = 167, p = .05$, proportion variance accounted for $r^2 = .01$), as was age at marriage ($r = .12$ or small, $n = 167, p = .06$, proportion variance accounted for $r^2 = .01$). These results, however, were not observed among women marrying men (for age, $r = .09, n = 114, p = ns$: for age at marriage, $r = .09, n = 114, p = ns$). Note also, in the complete sample, that age at which next child was desired, if applicable, was not

predictive of endorsement of DV 2 ($r = .01, n = 137, p = ns$). Greater agreement with this DV (as well as with DV 1: surname retention/hyphenation versus change) was not associated with increased emotional closeness of the participant to her father ($r = .11, n = 167, p = ns$) or mother ($r = .10, n = 167, p = ns$). Political liberalism and endorsement of DV 2 were marginally, positively correlated in the overall sample ($r = .15$ or small, $n = 164, p = .06$, proportion of variance accounted for $r^2 = .02$). This was also the case among women marrying women, only ($r = .26$ or small to moderate, $n = 52, p = .06$, proportion of variance accounted for $r^2 = .07$), but not among women marrying men ($r = .08, n = 112, p = ns$). Political liberalism, as noted, was also associated with retention/hyphenation (DV 1). Political conservatism, however, was uncorrelated with DV 2 (complete sample: $r = -.05, n = 164, p = ns$), while it was negatively related to retention/hyphenation (DV 1). Political conservatism and political liberalism, however, were correlated with one another (complete sample: $r = -.37$ or moderate effect size, $n = 164, p = .000$, proportion variance accounted for $r^2 = .14$). In contrast to DV 1, level of reported, local competition for husbands was not related to DV 2 ($r = .00, n = 167, p = ns$). Analogous to their relationship with DV 1, feminist identification ($r = .25$ or small, $n = 164, p = .001$, proportion of variance accounted for $r^2 = .06$) and higher Attitudes Toward Feminism and the Women's Movement Scale (Fassinger, 1994) scores ($r = .24$ or small, $n = 159, p = .002$, proportion of variance accounted for $r^2 = .06$) were positively associated with DV 2. Note, generally, regarding all correlations computed with the full dataset as well as with that from women engaged to men, only, statistical power was adequate to detect moderate or greater effect sizes: thus, all small effect sizes from such analyses must be viewed with caution. Also, all correlations computed from data from women engaged to women, only, had adequate statistical power to detect large effect sizes, only. Thus, all small and moderate effect sizes from such analyses must be viewed with caution.

Analogously with its relationship with DV 1, educational attainment was associated with endorsement of DV 2 ($F_{(3, 163)} = 2.56, p = .06, \eta^2 = .05$ or small to moderate) in the full sample, though not among women marrying men, only ($F_{(3, 110)} = .68, p = ns$). Note, however, that these ANOVAs were only adequately powered to detect large effect sizes, so these results must be interpreted with caution. The Spearman's rho of these data was computed, to test for a linear relationship between educational attainment (an ordinal

variable) and endorsement of DV 2. This calculation showed that with increased level of the former there tended to be increased endorsement of the latter (Spearman's $\rho = .26$, $n = 167$, $p = .001$).

When analyzing the full sample, the bride's own mother not having taken her father's surname was related to her endorsing DV 2 more ($t_{(44)} = 2.09$, $n = 167$, $p = .04$, $d = .63$ or moderate). (This was also the case among just women marrying men, at marginal significance: $t_{(33)} = 2.02$, $n = 114$, $p = .05$, $d = .70$ or moderate: this test, however, was adequately powered to detect *large* effect sizes, only.) Analogously, as noted, participants whose own mothers took their fathers' surnames were more likely to retain/hyphenate surname themselves (DV 1). Sameness/difference of ethnicity/ethnicities between participant and her fiancé(e) was similarly unproductive of DV 2 in the complete sample ($t_{(164)} = -.94$, $n = 166$, $p = ns$: note, however, that the sample's size only afforded sufficient power for detection of a large effect). Participants reporting that their weddings would be destination weddings was also not predictive of DV 2 ($t_{(165)} = .39$, $n = 167$, $p = ns$).

In contrast with DV 1, reported level of local, female-female competition for husbands was not related to the second DV ($r = .00$, $n = 167$, $p = ns$). Also in contrast to results with DV 1, the Egalitarian Autonomy subscale score of the Sociotropy scale (Cochran & Peplau, 1985) was positively predictive of DV 2 in the full sample ($r = .15$ or small, $n = 155$, $p = .06$, proportion variance accounted for $r^2 = .02$), but not among women marrying women ($r = -.05$, $n = 49$, $p = ns$). Note, however, that in the complete sample, power was adequate to detect only moderate or greater effect sizes, and power in the given sub-sample was only adequate to allow detection of large effect sizes. Thus, both these results must be viewed with caution.

Finally, perhaps of interest given its special status as the only Canadian sub-jurisdiction in which marital surname change (or hyphenation) is not allowed, is the absence of any difference in endorsement of DV 2 between participants residing in Quebec and those residing elsewhere ($t_{(14)} = 1.47$, $n = 167$, $p = ns$). Only 14 Quebec participants provided usable data, however, so this analysis was underpowered.

Multivariate analysis of predictors of each DV

To assess relative magnitude of predictiveness of hypothesized predictors with that of

other predictors of retention/hyphenation versus name change (DV 1), two models were sought to be tested under multiple, logistic regressions for each of the full sample (Table 4.8), the sub-sample of women marrying women (Table 4.9), and the sub-sample of women marrying men (Table 4.10). Likewise, to assess relative magnitude of predictiveness of hypothesized predictors with that of other predictors of level of agreement with the statement “In general, women should keep their birth names (at marriage)” (DV 2), two models were sought to be tested under multiple OLS regressions for each of the full sample (Table 4.11), women marrying women (Table 4.12), and women marrying men (Table 4.13). Model 1, if any,¹³ for each DV, included only predictor(s) as hypothesized herein, assuming each was found to be associated with the relevant DV, on its own, in the relevant sample (*i.e.*, full sample, women marrying women, or women marrying men). Then added (Model 2) were all additional variables found to individually predict that DV, in the relevant sample. To avoid multicollinearity of predictors, however, all such predictors were first assessed for moderate or greater relatedness each to the other (*e.g.*, for correlations, $r \geq |.30|$; see Tables 4.5 to 4.7)¹⁴ and, if deemed conceptually related to any other predictor, all but the strongest of the inter-related predictors discarded. (The sole exception to this practice occurred in the regression involving DV 1, using data from the sub-sample of women marrying women: reasons for this are given below.)

In the complete sample, for the first DV of retention/hyphenation versus change, the only significant, hypothesized predictor was participant’s income (see Model 1, Table 4.8). Also found to be predictive were age, age when marriage would take place, emotional closeness to father, rated likelihood of father assisting with children, liberalism, conservatism, reported local level of female-female competition for husbands, feminist identification, Attitudes Toward Feminism and the Women’s Movement Scale (Fassinger, 1994) scale score, whether the participant’s mother had taken her father’s surname, educational attainment, and destination bride status.¹⁵ Variables within each of the

¹³ For DV 1 among women marrying women and for DV 2 among women marrying men, there were no such predictors. Thus, for the relevant regressions, there is no Model 1.

¹⁴ In contrast to what was done previously throughout this chapter, note that correlations from all of the complete sample, women marrying women, and women marrying men, are reported, even where the correlation coefficient of some was of the same sign and similarly reached/did not reach significance. This was done, since the exact magnitudes of the moderate-or-greater intercorrelations determined which of the two variables forming these would be used in the regression.

¹⁵ Whether the participant’s mother took her father’s surname, destination bride status, and educational

following sets were moderately or strongly intercorrelated and deemed conceptually related: (1) age, and age at marriage; (2) emotional closeness to father, and reported likelihood he would assist with the bride's children; (3) liberalism, and conservatism; and (4) feminist identity, and Attitudes Toward Feminism and the Women's Movement Scale score. From each set, the variable which, on its own, was most strongly predictive of DV 1 was added to the variables in Model One, along with reported local level of female-female competition for husbands, whether the participant's mother had taken her father's surname, educational attainment, and destination bride status, to create Model 2 (Table 4.8).

Among women marrying women, for the first DV of retention/hyphenation versus change, there were no significant, hypothesized predictors. Found to be predictive were age, age at which next child was desired, reported emotional closeness to father, the reported likelihood her father would assist with any children, and liberalism. Of these, the first two were intercorrelated at $r \geq .30$ as well as conceptually-related (see Table 4.6). Also intercorrelated at $r \geq .30$ and conceptually-related, were participant's reported emotional closeness to father, and reported likelihood her father would assist with any children she had. Of these age-related variables, the relationship of DV 1 with age at which next child was desired was greatest, and age, second-greatest. Of these father-related variables, the relationship of DV 1 with reported likelihood the participant's father would assist with any children was greatest, and emotional closeness to father, second-greatest. Though in the above and subsequent regressions age at which next child was desired would have been used as sole, age-related predictor in the current regression, age was chosen for use instead. Likewise, though reported likelihood her father would assist with any children would have been used as sole, father-related predictor in the current regression, emotional closeness to father was used instead. This is so, as choosing age at which first child was desired and reported likelihood father would assist with any children, rather than age and emotional closeness to father, would have resulted in (1) $n = 36$, only, versus $n = 48$, for the current regression, and (2) disinclusion of all participants not anticipating future children (which was not the case in the other regressions). (See Table 4.9).

attainment, though unhypothesized predictors, were not included in the relevant correlation tables. This was not done, first, since the former two variables are dichotomous, and the last variable ordered categorical (non-interval): As such, no Pearson's correlation coefficient can be computed between each of these and the other variables. Second, this was not done since none of these three variables was conceptually related to any other predictor, so none could be discarded from the regression in favour of such other predictor in any case.

Among women marrying men, for the first DV of retention/hyphenation versus change, the significant, hypothesized predictors were participant income, and number of future children desired (see Model 1, Table 4.10). Also found to be predictive were age, age when marriage would take place, age at which next child was desired, closeness to father, rated likelihood of father assisting with children, liberalism, conservatism, feminist identification, Attitudes Toward Feminism and the Women's Movement Scale (Fassinger, 1994) score, whether the participant's mother had taken her father's surname, and educational attainment. Within the following groups of the above, conceptually-related variables, intercorrelations of $r \geq .30$ were observed: (1) age, age when marriage would take place, and age at which next child was desired; (2) closeness to father, and rated likelihood of father assisting with children; (3) liberalism, and conservatism; and (4) feminist identification, and Attitudes Toward Feminism and the Women's Movement Scale score. Within these groups, the following variables, each on its own, was most predictive of DV 1: (1) age, (2) closeness to father, (3) liberalism, and (4) feminist identification. These, along with the variables in Model 1 (participant's income, and number of future children desired), whether the participant's mother had taken her father's surname, and educational attainment, were used in the relevant regression (see Model 2, Table 4.10).

Within the complete sample the sole hypothesized predictors of endorsement of "In general, women should retain their birth names" (DV 2) were participant's income and *In-law Avoidance Motivation* factor score. Also predictive were closeness to father, liberalism, feminist identification, Attitudes Toward Feminism and the Women's Movement Scale (Fassinger, 1994) score, whether mother took father's surname, educational attainment, and the Egalitarianism-Autonomy subscale of Cochran & Peplau's 1985 Sociotropy scale. Since feminist identification and Attitudes Toward Feminism and the Women's Movement Scale score were both at least moderately intercorrelated and deemed conceptually related, only that most strongly related to DV 2 in the complete sample (feminist identification) was used in the relevant regression (see Table 4.11).

Among women marrying women, DV 2 was predicted by *In-law Avoidance Motivation* factor score as hypothesized. It was also predicted by liberalism, feminist identification, Attitudes Toward Feminism and the Women's Movement Scale score, and educational attainment (see Table 4.12). Since feminist identification and Attitudes Toward

Feminism and the Women's Movement Scale score were both at least moderately intercorrelated and deemed conceptually related, only that most strongly related to DV 2 in the current sub-sample (feminist identification) was used in the relevant regression (see Table 4.12).

Within the sub-sample of women marrying men, DV 2 was predicted by no hypothesized predictors. It was predicted by feminist identification, Attitudes Toward Feminism and the Women's Movement Scale score, whether mother took father's surname, and the above Egalitarianism-Autonomy subscale. Since feminist identification and Attitudes Toward Feminism and the Women's Movement Scale score were both at least moderately intercorrelated and deemed conceptually related, only that most strongly related to DV 2 in the current sub-sample (Attitudes Toward Feminism and the Women's Movement Scale score) was used in the relevant regression (see Table 4.13).

Table 4.5. Full sample: Correlations between predictors of DV 1 (surname retention/hyphenation versus change) and DV 2 (endorsement of statement “In general, women should keep their birth names”: † $p < .1$; * $p < .05$; ** $p < .01$; *** $p \leq .001$; Ns 129 to 176).

	1	2	3	4	5	6	7	8	9	10	11
Participant Income	-	.26***	.28***	.10	.07	.14†	-.11	.01	-.09	-.03	.08
Age	.26***	-	.99***	-.07	-.15	-.06	-.11	.12	-.08	-.08	-.01
Age at marriage	.28***	.99***	-	-.12	-.18*	-.07	-.10	.13	-.09	-.07	-.00
Closeness to Father	.10	-.07	-.12	-	.60***	.08	.07	.15†	.10	.07	.18*
Likelihood Father help with children	.07	-.15	-.18*	.60***	-	.09	.03	.02	.18*	.11	.14
Liberalism	.14†	-.06	-.07	.08	.09	-	-.37***	.00	.47***	.23**	.10
Conservatism	-.11	-.10	-.10	.07	.03	-.37***	-	.10	-.26***	-.33***	-.19*
Husband Competition	.01	.12	.13	.15†	.02	.00	.10	-	.01	-.05	-.01
Feminist Identification	-.09	-.08	-.09	.10	.18*	.47***	-.26***	.01	-	.60***	.24**
Feminism Scale	-.03	-.08	-.07	.07	.11	.23**	-.33***	-.05	.60***	-	.28***
Egalitarianism	.08	-.01	-.00	.18*	.14	.10	-.19*	-.01	.24**	-.28***	-

Table 4.6. Women marrying women sub-sample: Correlations between predictors of DV 1 (surname retention/hyphenation versus change) and DV 2 (endorsement of statement “In general, women should keep their birth names”: † $p < .1$; * $p < .05$; ** $p < .01$; *** $p \leq .001$; Ns 38 to 57).

	1	2	3	4	5	6	7	8
Age	-	.68***	-.07	-.09	.11	-.10	-.21	.06
Age next child desired	.68***	-	.26	.20	.09	-.18	-.26†	-.18
Closeness to Father	-.07	.26	-	.60***	.00	-.00	.01	-.22
Likelihood Father help with children	-.09	.20	.60***	-	.04	.09	-.10	-.24
Liberalism	.11	.09	.00	.04	-	.61***	.27†	-.06
Feminist Identification	-.10	-.18	-.00	.09	.61***	-	.58***	-.08
Feminism Scale	-.21	-.26†	.01	-.10	.27†	.58***	-	.03
In-law Avoidance Motivation	.06	-.18	-.22	-.24	-.08	-.08	.03	-

Table 4.7. Women marrying men sub-sample: Correlations between predictors of DV 1 (surname retention/hyphenation versus change) and DV 2 (endorsement of statement “In general, women should keep their birth names”). † $p < .1$; * $p < .05$; ** $p < .01$; *** $p < .001$: N s 88 to 117).

	1	2	3	4	5	6	7	8	9	10	11	12
Participant Income	-	-.22*	.34***	.36***	.39***	.14	.05	.15	-.21*	-.09	.02	.14
Number of future children desired	-.22*	-	-.54***	-.53***	-.14	.06	.18†	-.08	.28**	-.04	-.02	-.33***
Age	.34***	-.54***	-	1.00***	.83***	-.06	-.17†	-.13	-.14	-.08	-.02	.09
Age at marriage	.36***	-.53***	1.00***	-	.84***	-.12	-.20*	-.13	-.14	-.08	-.03	.09
Age Next Child Desired	.39***	-.14	.83***	.84***	-	-.03	-.07	-.06	-.03	-.07	-.05	.08
Emotional Closeness to Father	.14	.06	-.06	-.12	-.03	-	.60***	.12	.09	.14	.08	.12
Likelihood Father help with children	.05	.18	-.17†	-.20*	-.07	.60***	-	.11	.03	.22*	.19†	.07
Liberalism	.15	-.08	-.13	-.13	-.06	.12	.11	-	-.37***	.40***	.21*	.16†
Conservatism	-.21*	.28**	-.14	-.14	-.03	.09	.03	-.37***	-	-.29**	-.29**	-.19*
Feminist Identification	-.09	-.04	-.08	-.08	-.07	.14	.22*	.40***	-.29**	-	.60***	.29**
Feminism Scale	.02	-.02	-.02	-.03	-.05	.08	.19†	.21*	-.29**	.60***	-	.28**
Egalitarianism	.14	-.33***	.09	.09	.08	.12	.07	.16†	-.19*	.29**	.28**	-

Multivariate Regressions predicting Hyphenation/Retention versus Change of Surname

(DV 1):

Table 4.8. Full Sample ($N = 153$ for Model 1; $N = 132$ for Model 2): Predictors of retention/hyphenation versus change of surname, addressing two logistic multiple regression models (Model 1 Cox & Snell pseudo- $R^2 = .02$, Nagelkerke pseudo- $R^2 = .03$; Model 2 Cox & Snell pseudo- $R^2 = .37$, Nagelkerke pseudo- $R^2 = .52$).

Predictor Variables	Model 1					Model 2				
	b	Std. Error	Wald	p	Exp(b)	b	Std. Error	Wald	p	Exp(b)
Participant income	-.28	.15	3.20	.07	.76	-.15	.24	.37	.544	.86
Age						-.22	.06	13.57	.000	.80
Emotional Closeness to Father						-.33	.20	2.86	.091	.72
Liberalism						-.34	.15	5.10	.024	.71
Husband Competition						-.12	.16	.58	.445	.88
Feminist Identification						-.31	.13	5.99	.014	.73
Whether Mother took Father's surname						1.86	.67	7.75	.005	6.39
Educational Attainment						-.54	.21	6.90	.009	.58
Destination Bride Status						.30	.68	.20	.657	1.35

Table 4.9. Women marrying women sub-sample ($n = 48$): Predictors of retention/hyphenation versus change of surname, addressing two logistic multiple regression models (Cox & Snell pseudo- $R^2 = .17$, Nagelkerke pseudo- $R^2 = .25$).

Predictor variable	b	Std. Error	Wald	p	Exp(b)
Age	-.09	.05	2.86	.091	.91
Emotional Closeness to Father	-.43	.24	3.11	.078	.65
Liberalism	-.30	.19	2.59	.107	.74

Table 4.10. Women marrying men subsample ($n = 100$ for Model 1; $n = 86$ for Model 2): Predictors of retention/hyphenation versus change of surname, addressing two logistic multiple regression models (Model 1 Cox & Snell pseudo- $R^2 = .04$, Nagelkerke pseudo- $R^2 = .05$; Model 2 Cox & Snell pseudo- $R^2 = .44$, Nagelkerke pseudo- $R^2 = .61$).

Predictor Variables	Model 1					Model 2				
	b	Std. Error	Wald	<i>p</i>	Exp(b)	b	Std. Error	Wald	<i>p</i>	Exp(b)
Participant income	-.28	.18	2.30	.129	.76	-.55	.36	2.29	.130	.58
Number of future children desired	.18	.22	.65	.422	1.19	-.26	.35	.55	.458	.77
Age						-.08	.11	.62	.432	.92
Emotional closeness to Father						-.68	.35	3.81	.051	.50
Liberalism						-.54	.22	6.13	.013	.58
Feminist Identification						-.39	.16	5.59	.018	.68
Whether Mother took Father's surname						2.41	.97	6.22	.013	11.15
Educational Attainment						-.42	.27	2.31	.128	.66

Summary of Logistic Regression Results

Tables 4.8 to 4.10 contain *b* and Wald values, significance levels, and exponentiated (*b*) values (or, odds ratios) for the regressions for which retention/hyphenation versus surname change was the DV. Note that according to Ferguson (2009), Adjusted- R^2 values of the magnitude of the pseudo-Adjusted- R^2 values of both Models 1 reported were below the cut-off of acceptability for the purposes of reporting, for social scientific research. In each case in which a Model 2 (or only one model) was reported, however, its like value was above such cut-off. Additionally, the effect size of each Model 2, based on its Nagelkerke pseudo- R^2 (which has a maximum value of 1.0, as does OLS regression R^2 values), may be considered moderate within the social sciences (*i.e.*, at least 0.25 but less than 0.64: Ferguson, 2009). Power may also be considered adequate in each regression (Peduzzi *et al.*, 1996).

Full Sample

Among participants as a whole, greater participant income predicted more retention/hyphenation (DV 1: retention/hyphenation effect coded as -1; change effect coded as 1). This was no longer the case, however, when the other predictors were added (Model 2). When this was done, retention/hyphenation was only (at least marginally) predicted by greater age, greater emotional closeness on the part of the participant to her father, greater political liberalism, greater feminist identification, the participant's mother not having taken her father's surname at marriage, and greater level of educational attainment. It was not predicted by the included predictors (under univariate prediction) not only of income, but also reported local level of female-female competition for husbands, and destination bride status.

As can be seen from the relevant value of *b*, while holding all over predictors constant, for every greater year of participant age a .22 decrease in the log-odds of marital surname change was observed. Likewise while holding all other IVs constant, for every greater point of reported emotional closeness to father (on the six-point scale) a .33 decrease in the log-odds of marital surname change was observed. For every greater point of reported liberalism (on the 11-point scale) a .34 decrease in the log-odds of marital surname change was observed, while holding other IVs constant. For every greater point of reported feminist identification (on the 11-point scale) a .31 decrease in the log-odds of marital surname change was observed, holding other IVs constant. Where the mother of the bride had taken her father's surname a 1.86 increase in the log-odds of marital surname change was observed, holding other IVs constant. Finally, while holding all other predictors constant, for each greater 'bracket' of educational attainment a .54 decrease in the log-odds of marital surname change was observed.

Women Marrying Women Sub-Sample

Greater age and reported emotional closeness to father, only, were marginally significantly predictive of surname retention/hyphenation. Liberalism, the only remaining predictor, was not significantly predictive under the regression. As can be seen from the relevant value of (*b*), while holding all other predictors constant, for every greater year of participant age a .09 decrease in the log-odds of marital surname change was observed. Likewise, when holding all other IVs constant, for every greater point of reported emotional

closeness to her father (on the 6-point scale) a .43 decrease in the log-odds of marital surname change was observed.

Women Marrying Men Sub-Sample

Neither participant income nor number of future children desired remained predictive, when both of these (alone) were used in the same regression as predictors of surname retention/hyphenation versus change (Table 4.10, Model 1). When these predictors were used alongside the others in Model 2 (Table 4.10), the following, only, were (marginally) predictive of retention/hyphenation: greater reported level of emotional closeness to father, greater liberalism, greater feminist identification, and the participant's mother not having taken her father's surname. Thus, all of participant income, number of future children desired, age, and educational attainment were unproductive. As can be seen from the relevant value of *b*, while holding all over predictors constant, for every increase in level of reported emotional closeness to father (on the 6-point scale), a .68 decrease in the log-odds of marital surname change was observed. Likewise, and also while holding all other IVs constant, for every point of greater reported liberalism (on the 11-point scale) a .54 decrease in the log-odds of marital surname change was observed. For every greater point of reported feminist identification (on the 11-point scale), a .39 decrease in the log-odds of marital surname change was observed, when all other IVs were held constant. Finally, again while holding constant each of the other IVs, where the mother of the bride had taken the bride's father's surname a 2.41 increase in the log-odds of marital surname change was observed.

Multivariate Regressions Predicting Endorsement of "In general, women should retain their birth names (at marriage)" (DV 2):

Note that in the following OLS regressions cases were excluded pairwise instead of listwise where participants provided incomplete data on the relevant variables. The reason for doing this, was to maximize number of participants the data of whom was used, and thus statistical power. This was done in the OLS but not the logistic regressions, since it is only possible in the former.

Table 4.11. Full sample ($N = 145$ for Model 1; $N = 136$ for Model 2): Predictors of agreement with view that “In general, women should retain their birth names”, addressing two OLS multiple regression models (Model 1 Adjusted- $R^2 = .04$; Model 2 Adjusted- $R^2 = .13$).

Predictor Variables	Model 1			Model 2		
	β	t	p	β	t	p
Bride income	.13	1.58	.117	.14	1.70	.091
In-law Avoidance Motivation	.18	2.18	.031	.16	1.97	.051
Emotional closeness to Father				.14	1.59	.115
Liberalism				.00	.03	.977
Feminist Identification				.20	2.07	.041
Whether Mother took Father's surname				.19	2.23	.027
Educational attainment				.07	.73	.468
Egalitarianism				.08	.92	.361

Table 4.12. Women marrying women sub-sample ($ns = 52$ for Model 1 and Model 2): Predictors of agreement with view that “In general, women should retain their birth names”, addressing two OLS multiple regression models (Model 1 Adjusted- $R^2 = .05$; Model 2 Adjusted- $R^2 = .18$).

Predictor Variables	Model 1			Model 2		
	β	t	p	β	t	p
In-law Avoidance Motivation	.26	1.92	.061	.25	1.92	.061
Liberalism				.00	.01	.991
Feminist Identification				.28	1.77	.083
Educational Attainment				.27	1.94	.058

Table 4.13. Women marrying men sub-sample ($n = 106$): Predictors of agreement with view that “In general, women should retain their birth names”, addressing two OLS multiple regression models (Adjusted- $R^2 = .13$).

Predictor variable	β	t	p
Feminism Scale Score	.18	1.84	.068
Whether Mother took Father's Surname	.24	2.62	.010
Egalitarianism	.24	2.53	.013

Summary of OLS Regression Results

Tables 4.11 to 4.13 contain beta and t values, as well as significance levels, for the regressions the DV of which was level of endorsement of “In general, women should retain their birth names [at marriage]”. Note that where a Model 1 was reported, its Adjusted- R^2 value is insufficient to be considered reportable, for social scientific research, by Ferguson (2009). In each case in which a Model 2 (or only one model) was reported, its like value is sufficient to be considered reportable by the same source. Finally, Adjusted- R^2 in each Model 2 indicates an effect size that may be considered small, in the social sciences (Ferguson, 2009).

Note that for the full sample and the sub-sample of women marrying men, statistical power was adequate to detect moderate or greater effect sizes: for the sub-sample of women marrying women, it was adequate to detect only large effect sizes (Cohen, 1992.) As noted, however, effect size of each Model 2 was small. Additionally, Shapiro-Wilk testing for normal distribution of the DV, in each of the complete dataset, data from women engaged to women, and data from women engaged to men, showed non-normal distribution ($p \leq .001$): Thus, these regressions do not meet the assumptions of regression analysis. They will, however, be presented in this section, only (and not in the Discussion), for the sake of completeness.

Full Sample

As noted, of DV 2's hypothesized predictors, only participant (bride) income and *In-law Avoidance Motivation* factor score were found, individually, to be predictive of it. Of these two, when they (alone) were used together as regression predictors, only the latter was significantly predictive (Model 1). That is, greater *In-law Avoidance Motivation* score predicted greater endorsement of the given statement. When emotional closeness to father, political liberalism, feminist identification, whether mother took father's surname, level of educational attainment, and Egalitarian Autonomy (sub-scale of Sociotropy scale: Cochran & Peplau, 1985) were added to the model (Model 2), greater endorsement of the DV was still, although now only marginally, predicted by *In-law Avoidance Motivation*: participant (bride) income also became marginally predictive. Of the added IVs, feminist identification and whether the participant's mother took the participant's father's

surname, only, were predictive. That is, under Model 2, greater participant income, greater *In-law Avoidance Motivation* score, greater feminist identification, and the participant's mother not having taken the participant's father's surname predicted greater endorsement of "In general, women should retain their birth names".

Hypothesis 1a stated that the participant's (bride's) and her groom's income would be predictors of DV 1. Via the above regression, the portion of this hypothesis regarding bride's income received extremely limited support. Although, as just noted, bride's income was predictive under regression alongside other predictors of DV 2 (which was never predicted), it was not alongside other predictors of DV 1 in the relevant regression (which *was* predicted). Additionally, betrothed's income was not predictive. (Of course, whether *groom's* income was predictive is not assessable in the complete dataset, as approximately one-third of the participants therein reported they were marrying women. Hypotheses 1b and 1c were not testable given the data collected, as noted.)

The first part of Hypothesis 3, *The degree to which a woman views contacts with in-laws negatively ("In-law Avoidance Motivation") will be predictive of the degree to which she endorses the practice of marital surname retention* was supported. (As noted above, the other part of Hypothesis 3 concerning CFA confirmation of a previous survey execution's factor structure was unsupported in analyses separate to the relevant regression.)

Sub-sample of Women Marrying Women

As noted, of DV 2's hypothesized predictors, only *In-law Avoidance Motivation* was found, on its own, to be predictive. When it (alone) was used as a regression predictor, it was marginally significantly predictive (Model 1). That is, greater *In-law Avoidance Motivation* score predicted greater endorsement of the given statement. When political liberalism, feminist identification, and level of educational attainment were added to the model (Model 2), greater endorsement of the DV was still marginally predicted by *In-law Avoidance Motivation*. Of the added IVs, feminist identification and level of educational attainment, only, were predictive. That is, under Model 2, greater *In-law Avoidance Motivation* score, greater feminist identification, and greater level of educational attainment predicted greater endorsement of "In general, women should retain their birth names".

The first part of Hypothesis 3, *The degree to which a woman views contacts with in-*

laws negatively (“In-law Avoidance Motivation”) will be predictive of the degree to which she endorses the practice of marital surname retention was supported. (As noted above, the other part of Hypothesis 3 concerning CFA confirmation of a previous survey execution’s factor structure was unsupported in analyses separate to the regression.)

Sub-sample of Women Marrying Men

As noted, of DV 2’s hypothesized predictors, none was found to be individually predictive within this sub-sample. Thus, there is no Model 1 and Model 2 for this sub-sample. Instead, the sole regression presented includes all non-hypothesized predictors, chosen after excluding some that were both conceptually-correlated and at least moderately inter-correlated, as described previously. Those predictors were feminist identification, whether mother took father’s surname, and Egalitarian Autonomy (sub-scale of Sociotropy scale: Cochran & Peplau, 1985). All of these were at least marginally significantly predictive, under the regression. That is, greater feminist identification, the participant’s mother not having taken the participant’s father’s surname, and greater Egalitarian Autonomy sub-scale score, predicted greater endorsement of “In general, women should retain their birth names”.

DISCUSSION

In this chapter, factors associated with women’s marital surname retention/hyphenation versus change from the literature, along with a novel predictor (*In-law avoidance motivation*) and a novel control variable (destination bride status) were assessed for relatedness, each on its own as well as together (in multiple regression) if found to be related on its own, with two DVs. (Rated level of female-female competition for husbands was also collected for use in an analysis that could not be run due to insufficient data collection from a number of provinces: It was, however, also used as a novel control variable, as it was found to predict one of the DVs.) The first DV was reported retention/hyphenation versus change of surname at (imminent) marriage: the second was endorsement of the statement “In general, women should retain their surnames [at marriage]”. Data were gathered via survey of registrants with the website of the only pan-Canadian bridal magazine to the author’s knowledge, *Weddingbells*. Participants were asked

to self- exclude if not female, not brides-to-be, and/or not Canadian residents.

Section organizational notes

Only where sufficient sample size existed to ensure adequate power for the statistical tests of each hypothesis, are these hypotheses discussed further. Thus, Hypotheses 1b and 1c (as well as other results, in which power was insufficient to detect even a large effect size) are not discussed further.

It will be noted wherever results of analyses differed between the two sub-samples of (1) women engaged to men, and (2) women engaged to women. Generally, where one result was observed among (1) and another among (2) (or in the complete sample), any conclusions will be based on the first such result. This is so, as it is not known from the literature what marital surname change may signify, if anything, or the circumstances under which it may be undertaken (and by which female spouse, if not both), among women marrying women, and hypotheses were created to be tested on data from women engaged to men, only. (Pilot testing, however, for any differences in hypothesized outcomes between women engaged to men and women engaged to women, will be conducted: see *Pilot testing:*

Post-hoc hypotheses concerning participants engaged to women versus participants engaged to men.)

Specifically, the following types of results of analyses concerning hypotheses that differed between the two sub-samples, will be noted in the Discussion:

- (i) where one sub-sample possessed a statistically-significantly different frequency or average, as applicable, on a survey item compared with the other sub-sample, in either DV or in one of the items which was found and/or hypothesized to predict a DV in the complete sample,
- (ii) where the test coefficients in a statistical test were of opposite sign and significant in each sub-sample, and
- (iii) where one sub-sample's test coefficient in a statistical test reached significance but did not in the other.

Note generally that where a test ran produced statistically-significant results (with coefficients of the same sign) in one sub-sample, but was marginally statistically-significant

in the other sub-sub-sample, this is not noted below. Additionally, in those cases in which each of the sub-samples' test coefficients in a test performed was of the opposite sign as that observed for the same test in the complete sample (in which cases these tests in the sub-samples were not statistically-significant), this is not noted below. All such occurrences, however, are noted in the Results section. They are omitted below for clarity and brevity. This organization will allow for discussion of differences between the two sub-samples.

Summary and discussion of results

Pilot testing: Post-hoc hypotheses concerning participants engaged to women versus participants engaged to men

Because I did not anticipate a sufficient number of participants reporting same-sex fiancée to allow for statistical analyses of this group, I did not devise any hypotheses prior to administering the survey as to differences between the two sub-samples. Thus the sole posited difference, briefly discussed within the Results and to be reiterated here, is the only one I could derive based on the hypotheses I did create (regarding opposite-sex marriage brides) prior to study execution plus their underlying logic. This posit is *post-hoc*, and therefore to be viewed with caution.

The relevant difference between brides (participants) from the two sub-samples, for the purposes of my hypotheses, stems from the different genetic relationship between the children of such marriages borne by each sub-sample, with the spouse and (almost certainly) the in-laws. The children of the marriages of brides entering opposite-sex marriages will usually be the genetic children of both spouses, and thus genetically related to (at least some of) the participant's in-laws. On the other hand, the children of the marriage of a participant entering a same-sex marriage, absent being sired by one of her in-laws, cannot be the genetically related to both she and her spouse. Where she is the genetic mother of such children, absent the above, seemingly-unlikely sireship, these also cannot be genetically related to her in-laws. Which children of the marriage, if any, she is the genetic mother, should be obvious to in-laws. That is so, as they would almost certainly observe her pregnant with such children or hear about same. Thus, signaling to her in-laws that she is committed to her spouse/marriage, and therefore, presumably, to sexual fidelity within the

marriage, would not be predicted to bear the same, potential pay-off of increased investment from in-laws. That is, since the utility of such signaling (in brides entering opposite-sex marriages) regarding in-laws is hypothesized to be its assurance of their future, *genetic* relatedness to children of the marriage, and such genetic relatedness seems extremely unlikely for the in-laws of brides in same-sex marriages, there would seem to be less point to so signaling.

Of course, grandparents of adopted grandchildren/the step-children of their own children invest in these at least sometimes. Thus, grandparents invest in non-genetic grandchildren, and these could include those borne by a daughter-in-law married to a daughter. Additionally, in cases in which both female spouses in a same-sex marriage bear (a) child(ren), where one spouse's good relations with her in-laws induce these to invest in their own, genetic grandchildren only, such investment might allow the couple's own resources which would otherwise have to be spent on that child, to be spent on their other child(ren). Thus, such signaling to in-laws might not be fruitless in (effectively) increasing investment in the genetic children of a woman in a same-sex marriage, and therefore not absent on that basis. Based on the above, I make several, *post-hoc* 'predictions', all relating to the hypotheses (and one, regarding age, relating to a Study 1 hypothesis). Due to inadequacy of the sample sizes to detect all but large effect sizes under the analyses testing these post-hoc 'predictions', and the inadequacy of sample size in two such analyses to detect even a large effect size, the given analyses should be viewed as conducted with pilot data.

I predict participants reporting a female fiancée will report they will undergo marital surname change less often. Further, among these participants compared with those engaged to men, such change will be less associated with own or fiancée income (see generally Hypothesis 1a), number of children desired (see generally Hypothesis 2), and age. Note I make no 'prediction' regarding the first portion of Hypothesis 3, "*The degree to which a woman views contacts with in-laws negatively ("In-law Avoidance Motivation") will be predictive of the degree to which she endorses the practice of marital surname retention*". That is so, in part, since the relevant DV regarding such endorsement was worded "In general, women should retain their birth names [at marriage]". Since it is only traditional among women marrying men to undergo marital surname change, it is unclear whether

women engaged to women would answer this question the same way as women engaged to men would. They may not answer this item, designed to tap general attitude toward the practice, as women engaged to men might, for example, because they might never have been subject to expectations regarding the tradition. As such, they might never have formed an attitude concerning it. Additionally, they might interpret it as meaning “In general, women *engaged to men* should retain their birth names [at marriage]”. If they did, this DV might not tap their general attitude to a practice that would relate to their own marriage. For women engaged to men, on the other hand, it would. Note that the second portion of Hypothesis 3, “*Furthermore, I predict that the degree to which she expects financial assistance from in-laws will comprise a separate factor from In-Law Avoidance Motivation under Confirmatory Factor Analysis of both types of items*”, could not be tested for women engaged to women due to inadequacy of size of such sub-sample.

28% of participants reporting a same-sex fiancée and 37% of participants reporting an opposite-sex fiancé ($\chi^2_{(1)} = 1.29, p = ns$) reported they would retain/hyphenate surname at marriage. Thus, the *post-hoc* hypothesis stating that women engaged to men would report intention to undergo marital surname change more often than women engaged to women, was unsupported. This strongly suggests, in turn, that even assuming there are particular benefits to women to signaling fidelity to a *male* spouse/marriage to a *man*, and assuming such signaling is effected via marital surname change, there exist(s) (an)other reason(s) to undergo the practice.

Interactions under binary logistic regression between sex of fiancé(e) and each of own income, participant’s fiancé(e)’s income, number of future children desired, and age, were assessed for significant predictiveness of participant marital surname change versus retention/hyphenation. Where such interaction was predictive, a difference between women engaged to women and women engaged to men in predictiveness of own income, participant’s fiancé(e)’s income, number of children desired, or age, as the case was, was demonstrated.

Of the interactions assessed via binary logistic regression, only that of fiancé(e)’s sex with number of future children desired ($B = .369, \text{Exp}(B) = 1.45, df = 1, p = .021$) was significantly predictive of retention/hyphenation. That the relevant regression’s Cox & Snell pseudo- $R^2 = .04$, and Nagelkerke pseudo- $R^2 = .06$, however, shows that the proportion of

variance explained by this regression may be too small to render the regression reportable (see generally Ferguson, 2009). Thus, this result will not be further discussed.

Contrary to *post-hoc* ‘expectation’, a difference in frequency of reported intention to undergo marital surname change was not observed between women engaged to women and women engaged to men. Also contrary to such expectations, none of the above four variables (own income, participant’s fiancé(e)’s income, number of children desired, or age), may be reported to be less strongly related to intention to undergo marital surname change in women engaged to women compared with women engaged to men. As noted, however, some of the tests that would have allowed for such comparison were either not possible due to small women-engaged-to-women sub-sample size, or underpowered.

Participant’s fiancé(e)’s income was not predictive of intended surname change versus hyphenation/retention among women engaged to men under univariate testing, though the statistical power of that test was inadequate to detect all but large effect sizes. Additionally, the predictiveness of participant’s fiancé(e)’s income and of number of future children desired, of intended surname change versus hyphenation/retention was not even assessable for women engaged to women, even assuming a large effect size, due to inadequate sample size. As noted in the Results, however, each of the two remaining variables were (separately) predictive of marital surname change versus hyphenation/retention under univariate testing, in each of the sub-samples (number of future children desired was also predictive among women engaged to men).

These results generally point to the need for greater sampling among women engaged to men, since the given effect sizes, where an effect was found at all, were small to moderate. These results, further, point to the need for greater sampling among women engaged to women, before comparisons of data from that sub-sample to data from women engaged to men can be considered as other than pilot analyses. Finally, it must be noted that none of the above findings would survive Bonferonni correction for *post-hoc* hypotheses.

Sample size of women engaged to women may not have only been inadequate: the method of sampling these may not have resulted in the given sub-sample being as representative of Canadian women engaged to women, as was the sub-sample collected of Canadian women engaged to men. That is, the surveyed women engaged to men may have been more representative of Canadian women engaged to men in general, than the surveyed

women engaged to women were representative of Canadian women engaged to women in general. This is suspected, since, as noted, a smaller proportion (*i.e.*, 0 out of 20 compared to 19 out of 20) of the real weddings profiled in *Wedding Bells* in the (Toronto) magazine edition in circulation at the time of the survey were of two women marrying one another, compared with opposite-sex marriages. For this reason, it must be considered that the given magazine may be of greater appeal to women marrying men than it is to women marrying women, on average. As such, brides-to-be engaged to women who registered with the magazine's web-site, who therefore were recruited to the sub-sample of women engaged to women, may not have been as representative of women engaged to women, as were recruited participants engaged to men. Despite the advantages of the given recruitment method, therefore, in future work, a recruitment method which would grant more assurance of sampling women engage to women more representatively is suggested. Such recruitment, for example, could be via a website serving same-sex marriage participants, and/or conducted in locations at which same-sex marriages tend to be celebrated (*e.g.*, those places of worship which celebrate such marriages, *etc.*)

Income of the Participant and her Groom (or Fiancée: Hypothesis 1a)

Only bride's (participant's), not groom's, income as positively predictive of marital surname retention/hyphenation was supported as a predictor (Hypothesis 1a). Bride's (participant's) income being predictive of surname change was observed in the complete sample, and sub-sample of women engaged to men. Effect sizes were, however, small in these findings, yet the analyses producing them only adequately powered to detect moderate effect sizes. Among women engaged to women, this effect was not observed, though that sub-sample size afforded adequate statistical power to detect large effect sizes, only. Additionally, it is difficult to attribute the same, underlying reasons for this hypothesis, among this sub-sample.

One such reason, was enhancement of resource investment in her and her future children from husband and in-laws, via signaling commitment to husband/marriage, and therefore, also, to bearing more children of the marriage sired by the husband. Since participants engaged to women might not expect as much in-law support for their genetic children of the marriage anyway, the utility of signaling *to their in-laws* commitment to the

in-laws' daughter or to their marriage, would seem to be less than that for women engaged to men. Additionally, in such marriages but not in opposite-sex marriages, either or both spouse(s) might bear children: the current work did not query whether the participant, if she desired children at all, intended to be (one of) the one(s) to bear them, versus whether that role was planned to be undertaken solely by her spouse-to-be. Since children in female-female marriages are less likely to be genetically those of a (given) female spouse than they would be in an opposite-sex marriage, the basis of the hypothesis is somewhat undermined for the sub-sample of women engaged to women. Thus, the absence of the finding of participant's income predicting surname retention or hyphenation among women engaged to women only, is not taken as evidence contrary to Hypothesis 1a, which was devised for women engaged to men, only, in any case. Thus, the portion of Hypothesis 1a stating that participants' income would predict retention/hyphenation received support, albeit under underpowered analysis. The portion of that hypothesis stating that participants' betrotheds' income would predict retention/hyphenation received no support, again under underpowered analysis.

Participant income predicting surname change versus retention/hyphenation in the complete sample, additionally, was only seen when it was the sole predictor of this DV: under multiple regression it dropped out of significance alongside (i) greater age, (ii) greater emotional closeness to her father on the part of the participant, (iii) greater political liberalism, (iv) perceived local level of husband competition, (v) feminist identification, (vi) the participant's mother not having taken her father's surname at marriage, (vii) greater level of educational attainment, and (viii) destination bride status ((i), (ii), (iii), (v), (vi), and (vii) of which, only, were significant or marginally significant predictors within the regression). Thus, more predictive than participant income in the full sample, were age, emotional closeness to father, liberalism, feminist identification, the participant's mother having not taken her father's surname, and educational attainment. Perhaps those of greater income in the sample tended to also possess at least some of these other characteristics to a greater extent than others in the sample (*e.g.*, they tended to be older and more educated). In any case, income being most proximally causal to the decision to retain/hyphenate surname at marriage was not supported among sampled brides in general.

In the sub-sample of women marrying men (regarding which group all hypotheses

were created), the participant's income was not even predictive when regressed alongside number of future children desired, only (which was also non-predictive. When these two variables were regressed alongside age, greater emotional closeness to her father on the part of the participant, liberalism, feminist identification, the participant's mother not having taken her father's surname, and educational attainment to predict retention/hyphenation in that sub-sample (Model 2), only emotional closeness to father, liberalism, and the participant's mother not having taken her father's surname were (marginally) significantly predictive. Again, perhaps those of greater income within the sub-sample were also emotionally closer to their fathers, higher in liberalism, and tended more often to have mothers who did not take their fathers' surnames. In any case, income being most proximally causal to the decision to retain/hyphenate surname at marriage was not supported among those brides-to-be (women engaged to men) about whom the given hypothesis was made.

Analogous analyses were also performed with DV 2, for the sake of completeness. In the complete sample, brides-to-be of higher income division were found to be marginally more likely to endorse this DV. Although this result was also observed within the sub-sample of women engaged to women, it was not among women engaged to men. Due to the participant's income bracket being found to be merely marginally predictive of DV 2, and due to the finding not holding among women engaged to men, it cannot be concluded this predictor bore any relationship to DV 2 endorsement. Thus, this predictor should be interpreted as having predicted surname change versus retention/hyphenation among women engaged to men under underpowered univariate analysis, but not general attitude to the practice.

Regarding groom's income as predictive, note that an unplanned analysis did find that where participants' spouses'-to-be income brackets *exceeded* those of the participants, such difference marginally, positively predicted participants' marital surname change. This, however, was not seen in either sub-sample (women engaged to women or women engaged to men), though the statistical power required to detect any such finding was reduced in these sub-samples. Thus, absolutely no support for the portion of Hypothesis 1a, in which grooms' income is stated to be predictive of participant surname change, was found, and this predictor was also non-predictive of general attitude toward the practice.

Given that income is (positively) predictive at least of women's own marital surnaming choice, the study's underlying reasoning that lesser need for investment from in-laws and husband leads to less "getting in good" with them via marital surname change, might be seen as somewhat, indirectly, bolstered. There are, however, alternative interpretations. Goldin & Shim (2004), for example, discuss the possibility that women who are established in occupations in which they have built up goodwill under their names would suffer a professional/economic detriment by changing those names. If so, a conscious reasoning process on the part of women, to change surname only where a detriment to earnings and/or professional reputation would not exceed some level, is implicated. Such a possibility cannot be discounted, and the absence of need to "get in good", as above, cannot be preferred as explanatory, given the current study's data.

Number of Children Desired (Hypothesis 2)

Number of children desired was hypothesized to predict endorsement of "In general, it is better for a woman to retain her birth name [at marriage]" (DV 2). It was not significantly associated, however, with that DV. Thus, Hypothesis 2 was not supported. The range of number of children desired, 0 to 6, would seem to include enough variability to have allowed for detection of such relationship between this predictor and DV 2. The average number desired and its standard deviation (2.24 ± 1.11 : average number of future children desired, $M = 2.05 \pm 1.14$) may suggest that the large majority of participants wanted few enough children, that they might continue working (and thus not be, presumably, completely dependent on resource investment by husband and/or other(s)). Future research could assess whether, in countries such as the U.S. in which ability to work may be more jeopardized by motherhood due to the absence of guaranteed, paid, maternity leave, number of children desired might be predictive of such attitude.

As noted in the Results section, number of children desired might better have been hypothesized as a predictor of own marital surname change versus retention/hyphenation (DV 1) than of general attitude toward the practice (DV 2). It was hypothesized to predict DV 2 and not DV 1, or both, in part due to its having been hypothesized to predict only DV 2 in my Masters-level initial execution of the survey, given that the current execution of the survey functioned, in part, as a replication. In the MSc-level execution, it was anticipated

(and found) that a negligible number of participants would be engaged. For that reason, and since own marital surname change versus retention/hyphenation decision was thought to be made given the context of the engagement, only general attitude toward marital surname change, rather than own intention regarding the practice, was deemed sensible to query.

As noted, among women engaged to men only, number of future children desired was marginally predictive of marital surname change. The given effect size, however, was small, with retainers/hyphenators on average desiring 1.88 future children, and changers desiring on average 2.19 future children. Further, number of future children desired was not predictive of marital surname change in the complete sample. (Note that whether or not such predictiveness was the case among women engaged to women alone could not be assessed due to inadequate statistical power to even detect a large effect size in that subsample.) Although Hypothesis 2 received no support, it may be of interest that number of future children (presumably, children of the marriage) desired was marginally predictive of surname change versus retention/hyphenation, among women engaged to men. This may be of interest because of the rationale for Hypothesis 2. Part of that rationale, was that increased anticipated need of resources on account of more children anticipated, would tend to result in brides signaling greater commitment to husband (and therefore sexual fidelity to him) and marriage. The other, relevant part of that rationale, was that the purpose of such signaling was to encourage/bolster the perception among husband and in-laws that children of the marriage would be their genetic relatives, and thus that resource investment in these children would be in the interest of the husband's and in-laws' own RS's.

As noted, *among women engaged to men*, number of future children desired predicted women's own marital surname change versus retention/hyphenation. As discussed, women's marital surname change was posited to function as a costly signal of commitment (and sexual fidelity) to husband/marriage, with the result of husband and in-laws being better able to assume genetic relationship with children of the marriage. What was found, was that women undertook marital surname change to that of husband, more frequently where they desired more such children and therefore, presumably, would tend to require more resources for them. Such resources, as discussed, often do come from husband and parents-in-law.

In-laws (Hypothesis 3)

As discussed, women's marital surname change was posited to be a costly signal of commitment to husband and marriage. This signal, further, was speculated to result in enhancement on average of investment in the bride from her husband and in-laws, due to the greater increase to the RS of these resulting from greater, actual such commitment. Based on that, in turn, I postulated that marital surname change and a positive attitude thereto were, in part, products of a wish by the bride for higher level of involvement by in-laws with her and her future children. Collected data, however, were largely unresponsive. *In-law avoidance motivation* emerged as a factor under EFA following Varimax orthogonal rotation and did positively predict DV 2 (endorsement of the statement "In general, women should retain their birth names [at marriage]") in the complete sample as well as among women engaged to women. It did not, however, do so among women engaged to men (though the non-significant association was still positive), contrary to hypothesis. Note that that analysis was inadequately powered to detect a small effect size (while a small effect was observed in the complete sample), and thus such a relationship may have been detectable with greater sampling.

Additionally, though a (positive) association, was found between "Marriages work best if you don't live too close to your in-laws" and DV 2 (approval of the women retaining surname at marriage) in the complete sample, as well as among women engaged to women, it was not found among women engaged to men. Since only women engaged to men would seem reasonably likely to be capable of bearing future children genetically related to their spouses and in-laws, thus raising the RS of these, the positive results in the complete sample and in women marrying women may not indicate support of the hypothesis. To reiterate, this is so since I had posited that surname change signaled commitment to the husband and marriage, and therefore, in part, intended sexual fidelity: only sexual fidelity to a *male* partner by a female provides assurance that children of the union are genetically those of the partner (and thus that the partner is not cuckolded). Additionally, the unrotated version of that factor, *In-law affiliation motivation*, was associated with retention/hyphenation (in the full sample, plus both sub-samples), contrary to what would have been predicted regarding such a factor.

Based on this, there was a difference between the surveyed brides-to-be and those

undergraduate women (the only usable data of which came from participants reporting heterosexual orientation) I similarly surveyed as part of my MSc. That is, in the latter group, *In-law avoidance motivation* significantly predicted DV 2, while in the former, among women engaged to men, it did not. Also, the factor structure of the data from the undergraduates failed to match that of the data from the current survey, under CFA analysis (contrary to the second portion of Hypothesis 3: “*Furthermore, I predict that the degree to which she expects financial assistance from in-laws will comprise a separate factor from In-Law Avoidance Motivation under Confirmatory Factor Analysis of both types of items*”).

One potential explanation for the above difference in predictiveness of DV 2, concerns what each group (brides-to-be versus undergraduate women none of whom had ever been married) may have learned or observed regarding ‘women’s in-laws’. The undergraduates may have formed their then-current opinions of their own potential in-laws or in-laws in general, in part based on how their parents and other married relatives were treated by the in-laws of these. The brides-to-be, on the other hand, since they had presumably met their future in-laws, may have formed their then-current opinion of in-laws (especially within the context of the survey items regarding these, some of which were framed as personal to the survey participant) on their actual in-laws-to-be. Marriage is less common in the present day compared to the time at which most of the MSc survey participants’ parents would have been married: In 2011, 46.4% of Canadians over the age of 15 were married, while in 1981, the like figure was 60.9% (Milan, 2013). If having daughters-in-law is a rarer occurrence now than then, and yet is beneficial, and if daughters-in-law are therefore currently more precious, it may be that they tend currently to be better treated than they tended to be in the generation represented by my MSc survey participants’ mothers. My current survey’s participants therefore may have tended to anticipate better treatment as daughters-in-law than did my MSc survey participants. The latter may for that reason have expressed generally greater *In-law avoidance motivation*, perhaps increasing the (apparent) association between such attitude and DV 2.

An implication of the inadequacy of support of my hypothesis concerning *In-law avoidance motivation*, is that my underlying hypothesis that marital surname change functions as an investment enhancer from in-laws is seriously undermined. That it may function, however, as such an enhancer from husbands, is not undermined by the above

results. Future research might be best directed toward investigating that question.

Non-hypothesized Predictors

Note generally, regarding all correlations and *t*-tests computed with the full dataset as well as with that from women engaged to men, only, statistical power was adequate to detect moderate or greater effect sizes: thus, all small effect sizes from such analyses must be viewed with caution. All such effect sizes, below, are small unless otherwise noted. Also, all such analyses computed with data from women engaged to women, only, had adequate statistical power to detect large effect sizes, only. No such analyses possessed large effect size. Thus, all such analyses must be viewed with caution. Greater sampling of this last sub-sample in future work might reveal relationships that were shown (and will be reviewed, below) in the full sample and among women engaged to men, but not among women engaged to women.

Brides-to-be reporting a female fiancée were lower in both feminist identification and Attitudes Toward Feminism and the Women's Movement Scale score than were those reporting a male fiancé. Feminist identification and Attitudes Toward Feminism and the Women's Movement Scale (Fassinger, 1994) scores, unsurprisingly given previous work from the literature, were positively related to both retention/hyphenation (DV 1) and endorsement of women's marital surname retention generally (DV 2), in the full sample and both sub-samples.

The Egalitarian Autonomy subscale score of the Sociotropy scale (Cochran & Peplau, 1985) was positively predictive of attitude toward women's marital surname retention in general (DV 2), in the full sample and among women marrying men (small to moderate effect sizes). Thus, with greater endorsement of items consistent with romantic partners having autonomy from one another, and equal status within the relationship, there was greater endorsement of married women's retention of their birth surnames. This is, perhaps, an unsurprising (though novel) result. Note that the above relationship, however, did not hold among women marrying women. Additionally, scores on this sub-scale were unpredictable of actual retention/hyphenation in the full sample as well as either sub-sample.

In the complete sample and in each sub-sample, brides-to-be who reported they would retain/hyphenate their surnames reported being less politically conservative. Political

liberalism and endorsement of women's marital surname retention in general (DV 2) were marginally, positively correlated in the overall sample and among women marrying women, but not among women marrying men. Political liberalism was predictive of retention/hyphenation but not of endorsement of women's marital surname retention generally, among women engaged to men: Speculatively, this difference may reflect the fact that DV 2 espouses women's non-engagement in marital surname change, instead of free choice concerning engaging in it, and liberalism may typically encompass choice in the matter.

Bride's age, as well as being of relevance to childbearing plans, might be related to her occupational advancement level and/or commitment to that occupation: It was related to income bracket, within this Study's sample. Greater age was a positive predictor of retention/hyphenation under multiple regression, as well as of attitude to the practice (DV 2) under univariate analysis, but only in the full sample and among women engaged to women. Taking these results together, age cannot be taken as a predictor of the practice or attitude thereto among women engaged to men, in contrast to results from Study 1 (in which all brides were entering opposite-sex marriages). Perhaps of note, however, is the finding in the full sample, as well as, marginally, among women engaged to men, that greater age at which next child was desired was greater among those retaining/hyphenating surname.

Within the full sample as well as among women engaged to men, but not among women engaged to women, those indicating they would retain/hyphenate surname had higher educational attainment. Note, however, that although (sub-)sample size was adequate to detect moderate effect sizes in these analyses (and small-to-moderate effect sizes were, indeed, observed), the number of women engaged to women sampled only provided sufficient statistical power to detect large effect sizes. Thus, with greater sampling of women engaged to women, a similar result might be observed as was in the full sample and other sub-sample. Educational attainment was also related to endorsement of women's marital surname retention in general (DV 2: at small to moderate effect size) in the full sample, though not among women marrying men (with like analysis on women engaged to women inadequately powered to detect even a large effect size, and so not run). Note, however, that the given analyses on DV 2 (ANOVAs) were only adequately powered to detect *large* effect sizes, so this result must be interpreted with caution. A positive, linear relationship

(Spearman's rho) of moderate effect size between educational attainment and general attitude towards women's marital surname retention (DV 2) was, however, observed in each of the sample and sub-samples. A positive relationship between educational attainment and retention/hyphenation or positive attitude thereto, is unsurprising and in line with previous results from the literature. The reason no relationship was observed between education attainment and (1) retention/hyphenation among women engaged to women, or (2) attitude to the practice in general (ANOVA analysis, only) among women engaged to men, might be a lack of statistical power, as noted. Educational attainment might be viewed as indicative of (chance of) occupational advancement and therefore also of income, which was also a univariate predictor of retention/hyphenation.

In contrast to some previous, analogous work (concerning sameness or difference in culture) in the literature on women's marital surname change, sameness/difference in ethnicity or ethnicities of the participant and her spouse-to-be did not predict marital surname retention/hyphenation or change, or attitude thereto. Ethnicity was only proxied by race (according to U.S. Census divisions). Surnames, however, would seem to represent specific *cultures* within such large divisions. As such, many brides-to-be, even though of the same racial division as their intended grooms, may be of different cultural origin, which difference would be reflected in the latter's surnames. Thus, the result herein of difference/sameness within the engaged couple in ethnicity/ethnicities as non-predictive of marital surname change or retention/hyphenation or attitude thereto, should be viewed with great caution.

Participants the mothers of whom had not taken the surnames of their fathers were less likely to report they would be taking those of their own spouses-to-be. This was observed within the full sample as well as among women engaged to men. When data from just women marrying women, however, were analyzed, this relationship was not observed. In the complete sample and both sub-samples, additionally, this predictor also positively predicted endorsement of women's marital surname retention in general. This result is as has been reported elsewhere, and is thus unsurprising.

I also included and analyzed, as a control variable, closeness to each parent on the part of the bride-to-be. I did so since closeness to family of origin, the surname of which she would be relinquishing via marital surname change, might reasonably affect marital surname

change/retention/hyphenation decision and/or general attitude thereto. Every participant reported her emotional closeness to each of her parents, or that the question as to degree of closeness did not apply. Closeness to father, only, was significantly related to retention/hyphenation and approval of women's marital surname retention in general. This is perhaps unsurprising given that it is the father's surname, assuming the bride-to-be was herself surnamed traditionally, that she would be giving up via any marital surname change. It is also possible, however, that the reason for such relationship may be due to my underlying hypothesis that women's marital surname choice may be made facultatively, in order to enhance investment from family members with uncertain genetic links to the future children of the bride. That is, since brides'-to-be (putative) fathers have one uncertain genetic link to them (*i.e.*, since the bride's mother may have cuckolded the bride's father), and will have that same uncertain link to their daughter's children, these fathers are less certain investors than the brides'-to-be mothers. Where the daughter's relationship, however, with her (putative) father is close, perhaps she is assured of his belief in his paternity of her and/or investment in her. Assuming he is sure of his paternity of her, he, like the bride's mother, has zero uncertain links to the future children of the bride, and is therefore as certain an investor as the bride's mother. Though the former explanation (involving reticence to relinquish a name that is likely shared with a father to whom she is emotionally close) may seem more parsimonious, as discussed, closeness to a father may imply his greater willingness to invest in his daughter: This was evidenced in this Study by greater rated likelihood of such fathers helping with their daughter's children.

No such assumption regarding future investment, no matter how emotionally close the bride currently is to her future parents-in-law is, however, possible: A bride's parents-in-law will have ongoing genetic grandparental uncertainty concerning her future children (*i.e.*, until the bride reaches the end of her reproductive career or the marriage dissolves). Thus, since a bride must choose between, potentially (1) offending her own father, by giving up his surname or hyphenating, or (2) offending her parents-in-law, by not taking their surname, she may choose (2) more often where her father is a certain investor. That is so, since retaining one certain investor (her father) may provide more assurance of (more) investment than the potential gain of two less-certain investors (her parents-in-law). Future work could query closeness of the bride-to-be to each of future mother-in-law and future

father-in-law, and assess how close the bride tends to be to these two at given levels of closeness to her own father, before she will undergo marital surname change.

Two additional control variables, reported level of female-female competition for husbands, and destination bride status, were included based on work in Study 1. Specifically, regarding the first, it was thought that greater such competition might have been the cause of brides in U.S. states in which women's full-time and salaried median income was not relatively high and/or general household income equality not relatively high, not retaining/hyphenating surname as often as brides in other states. This was not testable, however, given the sparsity of data collected from most Canadian provinces. The item was, however, tested for association with each DV: though marginally (positively) predictive of surname retention/hyphenation in the full sample, it was not among women engaged to men (inadequate power existed to detect statistical association even assuming large effect size within the sub-sample of women engaged to women), and dropped out of significance alongside co-predictors in the relevant multiple regression. Thus, although it might be worthy of future research, the notion of such competition as necessarily driving the latter Study 1 result is untested, and its utility as a univariate predictor is not supported. Regarding the second control variable, destination bride status, it was thought such brides might be different in terms of their frequency of retention/hyphenation or attitude to retention, which would call into question the generalizability of the results of Study 1. Neither of these relationships, however, was present in the current study's data. (It may be of note, however, that in the full sample as well as each sub-sample, destination brides were older than non-destination brides, under underpowered analysis: Age was a positive predictor of retention/hyphenation in Study 1.)

Note that participants in the sole province surveyed in which women's marital surname change is not a choice, Quebec (where women lost the right to take their husbands' surnames other than socially in 1980), did not differ from participants elsewhere on attitude toward women's marital surname retention. Thus, no evidence of reactance against the removal of such right in Quebec was found in the current study. It must be noted, however, that the just-noted analysis is underpowered, given that only 14 Quebecers participated in the study. Finally, responses from Quebec participants, generally, should not be viewed as representative, given that the survey was conducted only in English, and sent to registrants

with an English-language website.

There were differences in which items predicted the DVs, between the two sub-samples. Thus, in these small but arguably quite comparable samples, some differences in what predicted retention/hyphenation as well as general attitude towards the practice occurred. There does not, however, appear to be a pattern to these differences. Additionally, they could be the result of inadequate sampling, especially of women engaged to women, as discussed, leading to analyses inadequately powered to detect the typically small effect sizes found. As such, although such differences may be investigated in future, they may simply comprise idiosyncratic differences between the given (relatively small) sub-samples.

Finally, as noted, women engaged to women did not differ from women engaged to men in marital surname change frequency (with the relevant trend showing greater such change in the former group). Additionally, participants reporting that their betrothed was of the same sex endorsed the statements “It’s better for children if their parents use the same last name”, and “A married couple’s unity is symbolized and displayed to others by a shared last name”, more than did participants reporting an opposite-sex betrothed. Since the testing producing these last two, just-noted results was adequately powered to detect large effect sizes only, these results must be viewed with caution. If they are found to be robust after any replication with large samples, however, these results plus those concerning marital surname change frequency among women engaged to women relative to among women engaged to men, may indicate some intriguing possibilities. Those possibilities are that, at least among same-sex, Canadian brides using websites such as *weddingbells.ca*, a common surname is an important marker of marital unity, and may be considered especially important for children of the union. Speculatively, this may be because where a marriage is same-sex, more available markers of the union are more usually felt to be important to employ, compared with in opposite-sex marriages. This, in turn, speculatively, may be due to the fact that such couples may not be as often considered to be married as are opposite-sex couples, due to the novelty of and/or controversy surrounding same-sex marriages. The felt importance of employing more of the available markers of a marital union where one is present, may especially be the case, at least in terms of a shared surname, for children of the marriage.

Multiple regression: Sub-sample of women engaged to men

Given all hypotheses concerned women engaged to men, uncertainty regarding what marital surname change may mean among women engaged to women, and small sample size of this last group, discussion of the logistic regressions with DV of retention/hyphenation versus change of surname will be limited to that performed with data from women engaged to men. For this regression, the hypothesized predictors of the DV found to be predictive under univariate analysis, were participant income and number of future children desired (see Model 1, Table 4.10). Also found to be predictive under univariate regression were age, age when marriage would take place, age at which next child was desired, closeness to father, rated likelihood of father assisting with children, liberalism, conservatism, feminist identification, Attitudes Toward Feminism and the Women's Movement Scale (Fassinger, 1994) score, whether the participant's mother had taken her father's surname, and educational attainment. Of these latter predictors, as noted, age, emotional closeness to father, liberalism, feminist identification, whether the participant's mother had taken her father's surname, and educational attainment only, were included in the regression. That was done, since these were at least moderately inter-correlated with one or more other of these variables and also conceptually related thereto (see Model 2, Table 4.10), and possessed the strongest correlation among such other variables with the DV. Of these, only emotional closeness to father, liberalism, feminist identification, and mother not having taken father's surname were (positively) predictive of retention/hyphenation.

These results show that these just-noted variables were better predictors in the given sub-sample than were any of the hypothesized predictors. This, in turn, suggests either a more complicated relationship of the hypothesized predictors to retention/hyphenation, or lesser or no such relationship when the predictiveness of these other predictors is taken into account.

As noted, the participant's own mother having taken her father's surname at marriage emerged as the strongest predictor of surname retention/hyphenation, under logistic regression (in which its predictiveness was assessed alongside that of other IVs). Thus, particular support is provided for the previous finding of this item as predictive, in the literature. (Additionally, such result is possibly indicative of familial or sub-cultural transmission of the practice.)

Interestingly, factors associated with the two DVs differed within the sub-sample of women engaged to men. That is, while the items emotional closeness to father and

liberalism were positively predictive of retention/hyphenation under the relevant multiple regression, they were not predictive of endorsement of the statement “In general, women should retain their birth surname [at marriage]” under univariate analyses. Additionally, educational attainment and Egalitarian Autonomy subscale score (from Cochran & Peplau’s 1985 Sociotropy scale) were positively predictive of this attitude item under univariate analyses, while neither such item was predictive under the relevant multiple regression. A possible explanation for the existence of these differences, is that the two DVs may not be entirely related (though, as noted, they were positively related under *t*-test), since, for example, women who retain/hyphenate surname may espouse choice in such decisions more than they espouse similar practice for other women: The statement (DV 2) espouses the practice, rather than that it be a choice.

The fact that the two DVs, though related to one another, did not perfectly ‘map’ one onto the other, indicates that attitude towards the practice in general (DV 2) may not predict well actual such practice (DV 1). Thus, such attitude data as collected in some previous work, based on the current result, should not be assumed to predict actual marital surname retention/hyphenation/change practice well.

Strengths, limitations, and future directions

Novelty

This research was novel in two aspects. First, no rates of women’s marital surname change, retention, and hyphenation across various parts of Canada had been previously assessed.¹⁶ The proportions, when all brides-to-be were considered, of each of these options, were as follows: retention, .22; hyphenation, .10; change, .62. Second, there is no previous research querying and simultaneously assessing this many variables, previously found in the literature associated with marital name change and attitude thereto in North America, performed on brides-to-be or married women.

¹⁶ Note that the small population size of several provinces (*e.g.*, the smallest, Prince Edward Island, at 146,447: Prince Edward Island Statistics Bureau, 2015) likely helped prevent adequate data collection therefrom. This issue might be addressed in future by snowball sampling, using “seeds” in such less-populous provinces.

Dependent Variables

DV 2 consisted of endorsement of a single statement: “In general, women should retain their birth names (at marriage)”. As such, it may be considered a less stable measure than a suitable scale score. No relevant scale, however, exists to my best knowledge. Note that the items included in the survey which did attempt to tap the construct of attitude to women’s marital surname change versus retention/hyphenation were not reliable enough to consider for use as a scale when taken together (Cronbach’s $\alpha = .68$). When separated into factors under EFA (Cronbach’s α ’s of .65 and .78), neither factor represented a coherent theme, such as favourability or unfavourability toward surname retention/hyphenation versus change. The fact that women engaged to women answered two of the twelve items differently than did women engaged to men, may suggest that any such scale devised should be designed for either of these groups of brides: not both together. Note that DV that was used did have the advantage of being modelled on one previously used by Hamilton, Geist, and Powell (2011).

Population Studied

Given that the behaviour at issue, women’s (opposite-sex) marital surname change, is an intersexual phenomenon, given the dearth of studies on marital surname change of women marrying women, and given the prevalence of heterosexuals in the Canadian population, limiting the hypotheses in the current study to women engaged to men seemed justifiable. The high proportion (approximately one-third) of participants reporting female fiancées, given the small percentage of the population made up by lesbians and bisexual women, demands some explanation. Speculatively, since women engaged to women would have more rarely been asked their opinions on marriage and their spouses via survey in the past (*e.g.*, since such marriage had only been legal across Canada for 11 years at time of survey: *Civil Marriages Act*, SC 2005), such women might tend to be more eager to let their opinions be known, and therefore tended in greater proportion to participate in the survey.

One strength of this study’s method relates to how it recruited opposite-sex marriage and same-sex marriage brides-to-be. That strength, is that these two groups of brides-to-be were recruited in identical manner and under, presumably, identical circumstances (*i.e.*, with an identical email on their computers, sent because each had previously registered with one

bridal website). The advantage of identical recruitment of these two groups, is that each may be better compared with the other, since they would be more likely to share rather than (perhaps systematically) differ in variables other than sex of fiancé(e). For example, if wealthier brides tended to have registered with the *Weddingbells* website, then wealthier same-sex *and* wealthier opposite-sex marriage brides-to-be would have tended to have been recruited, and would be compared. Though a greater number of same-sex brides-to-be would likely have been recruited had sampling been done at locations in which such brides-to-be may congregate (*e.g.*, at Canadian places of worship performing a large number of same-sex marriages, or via a website catering to Canadian, same-sex wedding participants), and their data could have be compared to that obtained from brides-to-be recruited at locations at which opposite-sex brides-to-be may congregate, recruiting at such locations would have introduced its own non-representativeness into the sample. That is, some variation attributable to the different locations of recruitment (*e.g.*, churches performing same-sex marriages versus churches performing only opposite-sex marriages), rather than to opposite-sex versus same-sex marriage status, would need to be assumed. Such a study, however, as complementary to the current one and involving a greater sample size as well as, perhaps, greater socio-economic status and other representativeness, is recommended.

As noted, in the edition of *Weddingbells* available during the course of the study none of the 20 real weddings profiled was of two women (though one was of two men). Thus, it would seem that the clientele apparently typically served by *Weddingbells* is heterosexual. Based on this, one conservative assumption is that not all women reporting a female fiancée in the current survey actually had a female fiancée, rather than a male fiancé (but, for example, inadvertently answered the relevant question wrongly). Future work in which the question regarding sex of the participant's fiancé(e) includes a visual representation of either an opposite- or same-sex fiancés/fiancées, or other unmistakable indicator of same- versus opposite-sex fiancée(e) to choose from, could seek to replicate the current findings. Such work could also include hypotheses and questions that pertain to same-sex marriage brides particularly. Future work could also examine whether name change occurs in male-male marriages.

Brides-to-be, though their marriages are imminent, are still stating *intention* to retain/hyphenate versus change surname, since the actual change or retention/hyphenation

occurs only at time of marriage. Thus, their actual decision may not accord with their reported intention, though they would presumably have already considered their surnaming options, as engaged women. No better source of data on Canadians, however, was deemed obtainable given that one research objective was discovery of situational factors associated with the decision. Additionally, records of women's surname change versus retention/hyphenation on the grounds of marriage, if kept by government, are not accessible, and it was not feasible to collect data from brides on their wedding days (when the decision, presumably, is usually finalized).

Participants were registrants on a bridal magazine website. To the extent such magazines include suggestions for purchasing items that will be used for one day only, as well as for purchase of other very time-limited, expensive activities in celebration of a wedding (such as an engagement party and honeymoon), they may disproportionately attract wealthy brides-to-be. Indeed, the median income bracket of participants was \$CDN 41,000 to \$CDN 60,000, which was greater than the average yearly earnings for female, Canadian earners in 2011: \$CDN 32,100 (Statistics Canada, 2013). At 30.02 (\pm 7.10) years of age on average, these brides may have been, again on average, slightly older than typical Canadian brides-to-be: 29.1, as of 2008 (Statistics Canada, 2016). Greater age was found to predict both DVs and, as discussed, greater income was partially supported as a (positive) predictor of retention/hyphenation and positive attitude toward retention. Thus, the actual rate of retention/hyphenation and, to the extent it is related, endorsement of DV 2, may be assumed to not be as great among all Canadian brides-to-be as these were among this study's participants.

To the extent a bridal magazine features suggestions for particularly complicated weddings requiring considerable time to plan and finance, its registrants may disproportionately represent engaged women in less of a hurry to marry than is typical. Thus, among women who perceive they must expedite their weddings in order to have time to bear all the children they wish or for other reasons, registration with such websites may not be pursued. If that is the case, such women would have tended to have been approached less often, under my recruitment method. Although it is difficult to envision a feasible recruitment method that would attract brides-to-be who varied more in hurry to marry, such a method is suggested.

This study's brides-to-be also cannot be taken as representative of various religious and ethnic groups within Canada. That is, due to low enrollment by brides-to-be who were neither Christian nor without religious affiliation (between which two groups no difference in either DV was discovered), no conclusions may be drawn concerning them. Comparisons between ethnic groups, also for the same reason, were not possible, except for between "White" and non- "White" participants (between which no differences in either DV was discovered). In general, to the extent the given sample was non-representative, as well as small in size, the results obtained therefrom must be interpreted as potentially non-replicable in a representative sample.

Greater sampling, perhaps at bridal shows and events around the country, including any catering to those of minority religious or ethnic groups, could remedy this issue. Also a possibility would be snowball sampling of brides-to-be (see, *e.g.*, Atkinson & Flint, 2001, for argument that difficult-to-access groups may be best sampled using this method). Finally, wedding officiants might be approached to record frequency of women's marital surname change and hyphenation/retention. These may be likely to be aware of such surname choice, since they may announce after the ceremony, "I now present, for the first time, Mr. and Mrs. X", only if applicable (substituting that statement with "I now present the newly-married couple", for example, where the bride will not be taking the groom's surname). In this way, the marital surname choice of a wider range of brides, and not just those of greater income, might be sampled.

Measuring attitudes and behaviour of brides-to-be, rather than those of married or unmarried women

Brides-to-be to be were chosen as research participants in part due to the fact they have almost certainly, since they are on the eves of their marriages, at least considered marital surname change for themselves, within a given partnership and economic and other contexts. Thus, characteristics of that partnership, of the bride and groom and the bride's parents, and other circumstances which might impact such decision, can be measured, along with the decision itself (and general attitude thereto). On the advice of a committee member, in any subsequent, related survey work, it is suggested that the bride's-to-be perception of the attitude of the groom-to-be and his natal family as to her marital surname choice be queried. This is

suggested, since there may be variation in the amount of pressure from the groom/his family on brides-to-be to undergo marital surname change, and this potential predictor has not yet been quantitatively studied.

Married women might have been studied in this survey, but brides-to-be were preferred as participants since marital surname change versus retention/hyphenation decision is taken at the time of marriage potentially, in part, in response to (then) available cues and circumstances. Memory for such cues and circumstances could erode over time making married women (or, at least those married for many years) less suitable participants. Also problematic is the fact there is evidence that surname retention/hyphenation has increased over time. As such, a cohort effect, with married women who wed more years ago having chosen surname change at a greater rate, was possible. Brides-to-be in the present dataset were of varying age (ranging from 20 to 60 years: $M = 30.02 \pm 7.10$), allowing for comparison of the effect of age without possible confounding by the above, predicted, cohort effect.

Type I Error

As noted, statistical comparisons were performed within the complete sample, within each of the sub-samples of women engaged to women and women engaged to men, and sometimes between these sub-samples. All such comparisons were only conducted where adequate statistical power was present, unless otherwise noted. There were a total of 300 unique, statistical comparisons performed as part of this Study, to test hypotheses ($n = 14$ such comparisons were run to test hypotheses), as well as to check for predictiveness of each surveyed variable, compare each of these sub-samples to the other on average, rate, or frequency (as applicable) of each variable hypothesized and/or found to predict each DV, and perform extra tests to attempt to explicate what results discovered might mean ($n = 286$).¹⁷ There were two reasons for the high number of statistical comparisons conducted. The first, as previously noted, was that there were many variables in the survey, with almost all either having been previously found to predict marital surname change or attitude thereto: testing each for predictiveness of the DVs, where statistical power allowed, was intended to allow for testing of which were predictive, and (via multiple regression) how predictive these were

¹⁷ Tests for intercorrelations between items within a scale, or undertaken for the determination of moderate or greater intercorrelation between predictors for the purpose of avoiding predictor multicollinearity in multiple regressions, only, were not included in this count.

relative to one another. The second reason, is that the decision was taken to run most tests on all of the complete sample, the sub-sample of women engaged to women, and the sub-sample of women engaged to men, following commentary by an examiner. Since I had not anticipated recruiting enough women engaged to women to allow for such testing, most of the comparisons performed were unplanned. Had I anticipated performing such testing, I would have attempted to recruit a greater number of such participants on that basis. Further, recruitment of a greater number of participants in general, based solely on the number of statistical comparisons planned and anticipated, was called for. It was, however, precluded due to funding limitations.

Of all the above tests, there were a total of 146 in which a significant result (or, in the case of some multiple regressions, multiple significant predictors) was found. At the given alpha of .05, $1/20 \times 300 = 15$ results of such difference/different predictiveness are anticipated as a result of Type I error. Thus, at least some of these results should be attributed to Type I error.

Factor Analyses

Attempting to demonstrate replication of the two-factor EFA of in-law attitude and expectation items found in previous work via CFA, given that EFA was comprised of only five items (see Table 4.2), was problematic. Kline (2011) advises that each CFA factor be comprised of at least three items (indicators): thus, a CFA comprised of two factors should include at least six indicators. As noted, two indicators were highly correlated with each other (in EFAs of the complete sample and of women engaged to men: EFA of data from women engaged to women not performed due to insufficient statistical power given sub-sample size). The number of indicators was too low, however, to allow for dropping of one such indicator. Doing so, however, might have resulted in a covariance matrix that was positive definite. It is therefore suggested that additional items be added to the ones used, in order to allow for finding or refutation of the existence of *In-law Avoidance Motivation* (and *Desire for Resources from In-laws*, and/or others) as factors within a larger set of items concerning attitude toward and expectations of in-laws. In particular, the replacement of the item “I would want my in-laws to be involved with my children” with more specific items such as “I would not want my in-laws to have contact with my children”, is suggested. In

this way, participants' current trend of either strongly endorsing the current item (represented by a strong, positive loading of this item on rotated Factor 2: *Desire for resources from in-laws*) or strongly disagreeing with it (represented by a strong, negative loading of this item on rotated Factor 1: *In-law Avoidance Motivation*) would be precluded and therefore opposite-sign, strong loadings of that item on two factors might not occur. Such occurrence, on its own, should make a CFA fit replicated data more poorly, where items (indicators) in that CFA each inform one factor only (as occurred here).

Conclusions

Participant's income, as predicted, as well as age, were positively predictive of reported intention to hyphenate/retain surname at imminent marriage among participants engaged to men. This is consistent with brides-to-be who could be expected to, on average and without more, need fewer resources during marriage also being more likely to state they would not undergo marital surname change. Groom's income (among participants engaged to men) was not predictive of participants reporting they would retain or hyphenate surname at marriage, contrary to prediction. As predicted, future number of children desired (marginally) predicted surname change versus retention/hyphenation, only among women engaged to men. This result is consistent with brides-to-be who could be expected to, on average and without more, need fewer resources for their children if any (and/or for themselves, assuming bearing children would dampen their ability to accrue resources for themselves), if they had male fiancés, also being more likely to state they would not undergo marital surname change.

My remaining hypothesis that was testable given the data collected, that *the degree to which a woman views contacts with in-laws negatively ("In-law Avoidance Motivation") will be predictive of the degree to which she endorses the practice of marital surname retention*, received no support via analyses performed on the portion of the sample (women engaged to men) on which it was intended to be tested. Further, the second portion of that hypothesis, stating *the degree to which she expects financial assistance from in-laws will comprise a separate factor from In-Law Avoidance Motivation under Confirmatory Factor Analysis of both types of items*, also failed to receive any such support. Thus, my M.Sc.-level research finding (MacEacheron, 2009) of *In-law avoidance motivation* predicting

endorsement of the practice of marital surname retention within an undergraduate female sample, was not replicated in the current sample. Further, the factor structure found in that work on an undergraduate sample did not replicate under Confirmatory Factor Analysis.

Under multiple regression analyses, non-intercorrelated variables found to be individually predictive of retention/hyphenation were assessed alongside each other for their relative predictiveness of that DV. Among women engaged to men, all of the participant's own income, number of future children desired, age, and educational attainment were unproductive when regressed alongside emotional closeness of the participant to her father, liberalism, feminist identification, and the participant's mother not having taken her father's surname (which were [marginally] predictive). Participants' mothers' own surname hyphenation/retention (as opposed to change to that of own father), was the strongest predictor of hyphenation/retention. Thus, the relative importance of the hypothesized, univariate predictors of participant income and number of future children desired, as well as of age and educational attainment, compared with these other predictors, is called into question.

The collected data are consistent with women's marital surname change being preferentially undertaken by women tending to be more in need of resources for themselves and/or their children of the marriage from spouses, among women engaged to men. Emotional closeness of the participant to her father, liberalism, feminist identification, and the participant's mother decision to take her father's surname or not, however, among women engaged to men, were more predictive of marital surname change than were variables directly related to likelihood of need for resources for self and/or children of the marriage. Thus, alternative explanations for participants having retained/hyphenated or changed surname should also be examined in future research. The collected data are inconsistent with women's marital surname change being preferentially undertaken by women tending to be more desirous of resources from in-laws, at least among women engaged to men. Results of analyses noted in this *Conclusion* were adequately powered to detect large effect sizes: significant results found, however, were of less than large effect size. Thus, these results must be interpreted with caution.

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Chapter 5

General discussion

This General Discussion has the following purposes. First, it briefly summarizes the main findings. Second, it discusses them in terms of the underlying theses or hypotheses of the thesis document, while touching on how the literature is extended or questioned by this work as a whole. It suggests future research directions. Finally, it discusses implications of the work.

Brief summary

In Study 1, I found that 19.2%, overall, of brides marrying in Hawai'i in 2010 either retained their pre-marital surnames or combined them (*e.g.*, via hyphenation) with that of their husband. I found that with greater U.S. state-level median full-time and salaried women's income, there was a greater rate of pre-marital surname retention and hyphenation among brides marrying in Hawai'i. This income predictor accounted for 60% of the variance. This finding, additionally, replicated an analogous one concerning women's average income, also at the state level, during a different year (MacEacheron, 2011). I also found that only in states in which household Gini was low (thus, household income equality high), did high full-time and salaried women's income predict greater rate of bridal pre-marital surname retention or hyphenation. This latter finding, which was suggestive of potential female-female competition for husbands via marital surname change under the circumstance of lesser income opportunity for women (and thus greater need to elicit provisioning from husbands and perhaps in-laws), led to the attempt to directly test same within Study 3.

In Study 2, I found that among couples completing a divorce in Elgin County, Canada, in an 8-month period within 2013-2014, 24.55% of wives had either retained their pre-marital surnames or hyphenated same with that of their husband. Husbands uniformly retained their pre-marital surnames. Marriages in which the wife had taken her husband's surname rather than hyphenating or retaining her pre-marital surname, lasted approximately 60% longer. These marriages involved the production of more children, but differences in birth rates between the two types of marriages was better explained by marriage duration than by wives' marital surname choice. Virtually all children of the marriages were surnamed solely for the husband of the marriage, regardless of whether the wife of the marriage had

taken husband's surname, retained her own, or hyphenated. The sole exception to this rule occurred in a marriage in which the wife retained her surname, in which a hyphenate produced from her and her ex-husband's surnames was used to surname the child.

In Study 3, I found that, among Canadian brides-to-be registered with a bridal magazine, the rate of intended retention of pre-marital surname or hyphenation was 33 % overall: I also found the like statistic for five of the provinces. I found a novel predictor of marital surname retention/hyphenation: perceived local level of female-female competition for husbands. I replicated some previous (unpublished) work of mine and some of others, showing that (opposite-sex) brides' emotional closeness to their fathers, liberalism, feminist identification, and her mother not having taken her father's surname at marriage predicted intention to retain/hyphenate pre-marital surname under regression of predictors found to be associated univariately. I found that bride's, but not groom's, income, as a univariate predictor only, predicted such intention, partially confirming the result of Study 1 in which greater female income (which was, however, only known only at U.S. state level in that study) predicted lesser marital surname change. Again among women engaged to men, Attitudes Toward Feminism and the Women's Movement Scale (Fassinger, 1994) score, feminist identification, educational attainment, own mother not having taken own father's surname, and Egalitarian Autonomy subscale score (from Cochran & Peplau's 1985 Sociotropy scale) were positively predictive of endorsement of the statement "In general, women should retain their birth names (at marriage)". Presumed correlates of traditionality, such as cohabitation before marriage and religious affiliation, on the other hand, were found to be non-predictive of either of these DVs.

There were no major hypotheses from the first two studies that were testable but which were unsupported. Unsupported from Study 3, among women engaged to men (regarding whom hypotheses were created) were the hypotheses that groom's income would predict retention/hyphenation, number of (future) children desired would predict attitude toward women's marital surname retention in general, *In-law avoidance motivation* would predict brides'-to-be surname retention/hyphenation versus change, and that *In-law avoidance motivation* would form a factor under CFA as was produced in previous, unpublished Master's-level work.

Results in relation to underlying theses/hypotheses, and the literature concerning women's marital surname choice

Previous social scientists studying women's marital surname change/retention have never done so under the lens of regarding marriage as a reproductive partnership, involving the joining of the woman's and man's entire families. When marriage is viewed this way, various, special hypotheses as to ultimate and proximal reasons for women's choice of surname after marriage arise. The ultimate bases for the hypotheses in this thesis, follow.

- 1) In-laws may have acted as a selection pressure, over evolutionary time, especially on daughters-in-law and their children more so than on sons-in-law.
- 2) Women's marital surname change, as a public declaration of the union, may be construed as a signal of commitment by the bride to the groom and his family. If this is true, it would follow that brides who particularly require investment by their future in-laws and/or husband, and/or particularly esteem positive relationships with their future in-laws, would regard women's marital surname change more positively and engage in it more.
- 3) Women's marital surname change, to the extent it is followed by children of the marriage being surnamed for the woman's husband (and to the extent other women's marital surnaming choices are not so followed), would additionally signal intention to patrilineally surname children of the marriage, and might constitute an attempt on the part of a bride to enhance future patrilineal investment. Such pro-patrilineal bias, in turn, was initially hypothesized to be ultimately caused by differential grandparental investment (Smith, 1998b), in turn caused by paternity uncertainty.

In commentary by an examiner, however, such causation under differential grandparental solicitude was discussed as not adequately grounded in evidence. Therefore in this thesis, instead, such pro-patrilineal bias was discussed as ultimately explicable by women's average, greater desire for resources (especially) from opposite-sex romantic partners, compared to men's (see, *e.g.*, evidence from 37 cultures that, in all but one, this was the case: Buss, 1989), in turn associated with greater nutritional and other resourcing needs associated with, among other things, pregnancy and lactation (in females only), as well as by paternity uncertainty. Also

discussed, was that mothers/their children are also particularly benefitted by investment from their in-laws. That this is the case in various cultures for which evidence for inter-cultural influence (or common influence on culture from a third culture) is scant or absent, it was argued, provides evidence consistent with the *desire* to assist with children of one's relatives (here, *male* relatives) comprising a commonality in our species' psychology, at least under some circumstances. The current male, romantic partner of a mother, as well as that male partner's kin, as putative genetic relatives of such child, are strong candidates for investors in that child. That is so, since that child represents a portion of their RS, and investment in him/her may augment their RS. This is the case, however, if and only if the male partner is the genetic father. I therefore predicted that women entering reproductive unions with men, where it is particularly in those women's interest to elicit such support, will attempt to provide more paternity assurance than other women. One way, I further posited, would be to demonstrate commitment to him/the marriage, by undergoing the costly signal of marital surname change.

- 4) Such paternity uncertainty means that the male, romantic partner, and the *paternal* grandparents, only, could suffer decreased reproductive success if the female partner is sexually unfaithful to the male partner. As such, the male partner and his parents might be predicted to 'mate'-guard the female partner, via scrutiny and/or control of her behaviour. If this is true, daughters-in-law would have an incentive to avoid their parents-in-law. To the extent they control resources she needs and give them to her, however, she would be predicted to avoid them less. In this way, brides may be faced with a trade-off: 'get in good' with in-laws, such as via marital surname change (to their surname), and reap future investment from them while enduring their scrutiny and control and losing earned 'goodwill' or brand identity under their pre-marital names, or not endure their scrutiny and control, lose out on some investment by them, but benefit from earned 'goodwill' and brand identity, professionally, via surname retention. Assuming this is true, wealthier brides-to-be, who require comparatively less resource support from in-laws (and husbands), should less frequently give up surname in order to 'get in good' with in-laws, since they are less likely to anticipate close relationships with these in-laws.

I will now discuss my findings as a whole, *vis-à-vis* the underlying theses or hypotheses of the thesis document.

As discussed, in contrast to individual-level findings of Hamilton, Geist, and Powell (2011), the results of Study 1 showed that neither of state-level political orientation nor collectivism/individualism were significantly (*i.e.*, were only marginally) predictive of frequency of surname retention/hyphenation, also at the state level, when used as sole co-predictor alongside state full-time and salaried women's median income. As noted, this may have been due to marital surname choice being driven, more ultimately, by the woman's resource level. I conjectured that her resource level might proxy her ability to be independent. As discussed, it seemed unlikely that such independence (assuming it is driving at all) was from the husband, since the difference between state median male and female full-time and salaried incomes (or male statistic divided by female statistic) should have predicted the DV in that case (see also similar result in MacEacheron, 2011). This adds support to marital surname choice functioning as a signal to the bride's in-laws (at least in addition to her husband).

Also in Study 1, I found the *interaction* of state-level Gini and women's full-time and salaried median income to be the only variable, other than the latter variable on its own, that positively predicted retention/hyphenation frequency alongside just the latter variable. This was the case, despite many other, putatively-related, state-level variables also being competitively regressed alongside (only) state women's full-time and salaried median income. That means, basically, that only U.S. states with relatively high income equality generally, as well as high women's median full-time and salaried income, had higher surname retention/hyphenation rate.

Based on this last result, I reasoned that in higher Gini (thus, lower equality) U.S. states, even where women employed full-time or salaried had better incomes than such women in other states, women might engage in more competition for husbands due to a presumably greater threat of hypergyny. That is, in U.S. states in which equality is low and thus there are few wealthy men, competition among women to attain them as husbands should be greater. Because it basically costs no money to undergo, I reasoned that marital surname change might be a way poorer women might effectively compete with wealthier ones in such states, to attain wealthy husbands (as well as 'get in good' with future in-laws).

That is, because better-earning women would presumably suffer a greater income detriment following surname change, and the practice is free of charge, it would be to the particular advantage of less-well-earning women to engage in it. As noted, however, there is evidence that even wealthy women seek to engage in hypergyny. Thus, assuming women compete with other women within their geographical areas for husbands, even wealthy women in such areas might need to engage in marital surname change in order to attract a wealthy husband, more often than would otherwise be predicted by their (the women's) incomes.

For women in states with lesser Gini (hence, greater income equality), there need not exist as much concern about poor women's competition for wealthy husbands, since there exists a greater proportion of wealthy men and a smaller proportion of poorer women as compared to states with less income equality. Thus, for women residing in such states in which full-time and salaried women earn relatively well, and they are among those employed full-time or are salaried, the detriment to their incomes that may occur after name change isn't balanced against as much of a threat to their competitiveness as potential wives, when they decide whether to undergo marital surname change or not. What of women in states with *lesser* general income equality and relatively *low* median full-time and salaried women's income? Such women may tend more often to need resource investment from husbands and in-laws especially when they reproduce, while not experiencing as much of a detriment to income (since earning prospects were, on average, poor regardless) from marital surname change, and so might engage in it more, for these reasons (however opaque or non-salient to the woman herself making the surname decision these reasons may be). Unfortunately, this was not testable using Canadian, provincial-level data from Study 3, due to the dearth of participants from five of the ten provinces and, thus, unacceptably-low statistical power. I would suggest future such tests, however, on larger, nationally-representative samples.

The amount of variance (60%) accounted for via Study 1's focal correlation of female state-level median full-time and salaried income and hyphenation/retention rate, was discussed as being of notice. Taken together with the greater predictiveness of the former measure versus many others, except for the interaction of Gini and itself, and the sample size, the results are particularly of notice. The idea that brides are making their marital surname decision consciously based on local women's earning potential, as well as local Gini, I discounted as highly unlikely, especially since any analogous such practice was not noted in

the literature on women's own introspected reasons for marital surname decision. Based on the results of Study 1, I instead speculated that participants (brides) at least somewhat accurately (1) perceived their own relative mate value in terms of resource accrual ability, and (2) local resource-level inequality. I further speculated that they made unconscious (but perhaps resource-maximizing) decisions based on these. I noted that where a decision-making rule, to the extent it maximized fitness, was non-introspectable, and yet fairly regularly followed, it may indicate the operation of evolved psychology.

An evolutionary account, but also a conscious economic one (since older women tend to be more established in their careers, all else equal), also accounts for increasing age of bride predicting greater retention/hyphenation, as found in this study. There was no (adequate) basis found for discounting such possibility. Arguments for considering the evolutionary account, however, follow, for readers' consideration.

It appears that the custom of wives taking their husbands' surnames at marriage, since it started in England at roughly the same time as transmission of fathers' surnames to their children, may have arisen due to its value as a signal from bride to groom that the latter's future children of the marriage would be surnamed for him (MacEacheron, 2016). It is therefore possible to posit both conscious, economic causation for the practice's origins in that country, and evolutionary ones. That is, it *may* have bestowed an economic advantage to a man (perhaps due to associated prestige) to have had his children surnamed as he was. To the extent economically benefitting her husband benefitted her too, wives would thus be predicted to engage in the practice. His wife taking his surname, however, given that only biological children were to be surnamed for their fathers at least by a later point in history, may also have bestowed on a husband the ability to advertise his sireship of his children, assuming he could be sure they would be surnamed for him where his wife took his surname (MacEacheron, 2016). Additionally, it is difficult to see why an increased number of children more clearly a man's own biologically would increase "prestige", absent evolutionary theorizing.

Another argument for possible, ultimate evolutionary causation for women's marital surname change (where it occurs), comes from the fact that maternal relatives, where it is possible given their proximity to grandchildren, invest more heavily and reliably in children than do paternal ones. Given this, it is puzzling that it is the *paternal* relatives after whom

brides are surnamed under women's marital surname change, which change predicts almost uniformly, as discussed, children being surnamed similarly. Using evolutionary theory, it is possible to account for this phenomenon by observing that paternal relatives are more uncertain investors in children due to paternity uncertainty, and thus would be the ones to which it is most profitable for brides to ingratiate themselves with. Such theory additionally would explain why maternal relatives do not generally take exception to their daughters taking their husbands' surname: doing so might benefit these daughter's children, by improving the prospect they will be invested in by paternal relatives. Such an explanation, while it has economic aspects, relies on evolutionary theory. No economic reason, on its own, of which I am aware or can postulate can fully account for such unexpected results, without the use of evolutionary theory.

I noted I could not, however, via this research, rule out conscious explanations over non-conscious evolutionary ones, such as brides making marital surname decisions based on weighings of their own anticipated earnings detriment against anticipated greater investment from husband/in-laws resulting from name change. I submit that correlational research cannot do so, and that, since it is not feasible to manipulate income and/or local Gini, only correlational research on the effects of these is feasible. Finally, I noted that regardless of the (psychological) means by which the effect occurs, it is novel and of large effect size, as well as non-introspectable. This, combined with the fact that previous authors (reviewed above) have shown that women and men care about the practice, make the effect found regarding it interesting.

Study 2's result of greater marriage duration, among divorced couples in the given geographical area and time period, is suggestive of marital surname change as a possible *commitment signal* on the part of brides to their grooms or others, regarding their intention to stay within their marriages longer. This is consistent with my underlying hypothesis that marital surname change functions as such. Other possible reasons for this effect, however, include more husband-initiated divorces or divorces the genesis for which came mostly from the husband, where the wives of these did not change surname to those of the husbands: in such a case, any such 'signal' was either unheeded or heeded but not responded to with (unequivocal) commitment to the marriage on the part of the husband. A second, possible reason for this effect, is that the (unknown) base-rate of married women's

retention/hyphenation of pre-marital surname may be great enough in the given county that, while among divorcing couples the wives in which retained/hyphenated had lesser marital duration, when assessing all completed marriages together (*i.e.*, those that end in divorce and those that do not), rate of divorce among women not having taken their husband's surname as their own is actually less than that among women who did undergo marital surname change.

Study 1's result of greater rate of women's surname retention/hyphenation where state-level full-time and salaried women's median income were greater, is consistent with my hypothesis that women may be (likely unconsciously) maximizing the level of either investment from husbands and in-laws or own income, via their surname choice, as discussed. The suggestion has been made, however, that individual women simply are likely to be consciously deciding to retain/hyphenate when potential financial losses within their careers stemming from name change render it income maximizing to do so. But in such case, almost all employed women might arguably benefit at least marginally from surname retention/hyphenation, yet it is a practice of a small minority in the U.S. Additionally, though the literature on marital surname change in the U.S. is decades deep, only in 2004 did an author posit that women might consciously choose to retain/hyphenate in order to maximize earnings. If this reasoning was conscious, it might be expected that it would have been previously, explicitly stated. This alternative hypothesis, additionally, cannot explain why so many *more* women undergo marital surname change than do not, while my underlying hypothesis that women may be 'getting in good' with husbands and in-laws via name change to theirs where these women's total resources are improved by same, may provide an explanation.

Study 3's result of greater bride's income and educational attainment predicting surname retention/hyphenation are consistent with underlying hypothesis (4), above. The absence of a finding of in-law avoidance predicting such retention/hyphenation, however, undermines the portion of this underlying hypothesis as regards in-laws. Thus, brides' "independence", as discussed above, emphasized via retention/hyphenation, at least among Canadian brides-to-be surveyed, may actually be from their grooms rather than their in-laws.

Possible future directions

Commitment signals, in order to be reliable, generally must be costly to the signaler

(Nesse, 2001). But is a pre-marital surname a costly item to surrender, for a bride? Such surname certainly acts as a cultural marker and symbol of association with the natal family. To begin to answer this question, perceptions and feeling of husbands of women who do and do not take their surnames at marriage, as well as those of the husband's natal families to these women, could be compared. This could be assessed, for example, via survey with participant recruitment via mTurk.com, with whether or not the woman underwent marital surname change the last question asked (to avoid possible biased responding in accordance with or in variance to experimenter expectation). It could also be assessed by examining differences in investment from paternal relatives, in children surnamed patrilineally versus non-patrilineally. This could be done, for example, by examining amounts of bequests from parents to sons (and grandchildren), in families with multiple sons and in which one/some of these married (a) woman/women who took their surnames and one/some of these married (a) woman/women who did not. My prediction, would be that for the former group of sons and their children, bequests would be less.

Surnames presumably function as cultural markers. Some cultures have higher status than others. Women whose natal family surnames possess greater status, for whatever reason, and/or who have built themselves 'brand identity' under their own names (see Goldin & Shim, 2004), would presumably suffer more of a detriment via marital surname change than would others. Such a woman undergoing the practice, therefore, would communicate a greater level of commitment to the patriline of her husband's family by surrendering her name in favour of theirs. For this reason, research into investment by fathers and fathers' parents into the children/grandchildren, respectively, depending on whether the fathers' wives had adopted or not adopted the patrilineal surname at marriage *and* depending on whether her pre-marital surname is prominent, could elucidate marital surname taking's effectiveness in signaling commitment *per se*, as well as in eliciting investment from those fathers and their parents. This could again be assessed via survey with participant recruitment via mTurk.com, again with whether or not the mother underwent marital surname change the last question asked, for the same reason as above.

Study 1 accounted for a greater proportion of the variance in U.S. women's opposite-sex marital surname decisions measured compared with that reported in any previous work, to my best knowledge. The variance it accounts for is that measured at state-level: previous

work has almost exclusively focused on individual-level measurement. Of course, the explanatory powers of these two types of research may not be comparable. Still, Study 1's primary predictors of retention/hyphenation (age and, separately, state-level full-time and salaried women's median income as well as the interaction of this with state-level household income inequality [Gini]) might be preferred as or used in addition to predictors of the practice to individual-level variables identified in other work, at least among similar brides where jurisdiction-level data is measured. Indeed, it would seem impossible to assess the average values among women at state- or province-level of individual-level variables found in Study 3, for example, to predict retention/hyphenation better than individual age and income (*i.e.*, own mother having not taken own father's surname, emotional closeness to father, liberalism, and feminist identification) among women engaged to men.

Where such variables (or their average values for women of typical marriage age within a jurisdiction) are collectable, however, it may be preferable to use these rather than variables such as age or income, to predict retention/hyphenation frequency. Given that state-level, median women's full-time and salaried income plus the interaction of this with state-level Gini were found to account for more of the variance in Study 1 than the individual-level variables just cited were in Study 1, however, and since the former variables did so within a much larger dataset and over two studies (see also MacEacheron, 2011, which the current Study 1 largely replicated), the former variables might in future work be found to, typically, better predict retention/hyphenation than the latter variables. That is, the Study 3 finding that own mother not having taken own father's surname, emotional closeness to father, liberalism, and feminist identification better predicted retention/hyphenation than age or income may not replicate. As such, I suggest that state-level women's median full-time and salaried income and its interaction with Gini, and individual age and income, be assessed as predictors alongside the most predictive of Study 3's variables as just noted, in future work assessing the relative predictiveness of each. In that way, the relative predictive power of each would be assessed in multiple studies (each of which should possess larger sample size than did Study 3).

Possible uses of the work and policy implications

Study 3 represents the first study published which measures the frequency of the

practice and characteristics of those engaging/not engaging in it in Canada, as well as in five Canadian provinces (albeit with a highly self-selected sample: women registered with a bridal website). To the extent such decisions are fraught for women, and impact their earning power, these rates may be of interest to those who are concerned with emotional well-being of women around the time of marriage (*e.g.*, those providing pre-marital counselling, officiants) and/or economists, who might assess whether such rates are useful predictors of married women's actual earnings.

Some evidence for perceived female-female competition for husbands (*i.e.*, in the eyes of the brides-to-be participating in Study 3) has now been found. It has also been, again novelly, found to predict women's marital surname retention/hyphenation. Now that evidence for perceived female-female competition for husbands has been found in at least one population, it may be studied by researchers on a less-exploratory basis in similar populations.

In Study 2, marital surname retention/hyphenation was found to predict, among divorcing couples in one Canadian county, 60% lesser marriage duration, as well as fewer children of the marriage. Thus, marital surname retention/hyphenation might be assessed for possible usefulness to demographers as a predictor of marital duration among those going on to divorce, and/or as a tool to help predict number of children expected to be produced from marriages ending in divorce.

There is evidence that women's marital surname choice in the U.S. and Canada affects which surnames are passed on to future generations, and hence survive (see generally MacEacheron, 2016). Assuming such survival/non-survival is of interest to them, anthropologists might use U.S. state-level frequency of women's surname change or retention/hyphenation, along with any greater prevalence of some names among men compared with women (*e.g.*, in case of large-scale male immigration into an area, followed by opposite-sex intermarriage with members of the original population) to predict rate of increase and decrease in frequency of various surnames.

It might be argued that if it is indeed found that paternal familial investment is increased by women's marital surname change (and subsequent passing of solely the father's name to the children of the marriage), individuals and governments should be made aware of this so that measures may be taken to ensure adequate support of children whose (married)

mothers retained/hyphenated surname at marriage. If, however, one of the underlying hypothesis (*i.e.*, (4)) of this thesis which states in part that women maximize resources for their children and themselves from all of own income, in-laws, and husbands via their marital surname choice is eventually proven correct, then simply continuing to allow women choice in this domain should lead to the best resourcing (as a result of marital surname change or retention/hyphenation) of children of married women, as well as of married women themselves. The removal of barriers to such free choice, I would argue, might be considered, in order to potentially maximize resourcing of married women and their children. Such barriers may include medical facilities, schools, border authorities, and other organizations dealing with mothers and children, being unequipped to deal efficiently and respectfully with mothers presenting with children of theirs who do not share their surname (or who share only one surname with them). Any such inability to deal efficiently and respectfully with such mothers and their children are identified as barriers to free choice in women's marital surname decision-making, in that they may lead some women to undergo marital surname change (whether at time of marriage or after bearing children) who would not otherwise have chosen to.

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Appendix A

Study 3 Web-Based Advertisement Sent to All Registrants On Weddingbells.Ca

Canadian brides-to-be: Take a survey and get a \$5 gift card. Please note that this is a limited time offer: be one of the first brides-to-be to click to be eligible to participate!

<link will be provided: a small picture of a bride, bridal flowers, wedding ring(s), or graphical detail none of which would convey words (e.g., decorative lines) will also be included>

Appendix B

Study 3 Letter of Information And Consent Form

Project Title: Marriage: Hopes, Plans and Attitudes

Principal Investigator: Lorne Campbell, PhD, Psychology Department, University of Western Ontario

Letter of Information

1. Invitation to Participate

You are being invited to participate in this research study of brides'-to-be plans and attitudes concerning their marriages. You are being invited to participate because you clicked on an advertisement sent to you by weddingbells.ca.

2. Purpose of the Letter

The purpose of this letter is to provide you with information required for you to make an informed decision regarding participation in this research.

3. Purpose of this Study

In this research, we are investigating how and why different brides-to-be make some of the marriage-related choices they do. In this research, participants will be asked some questions about themselves and their preferences. The purpose of this study is to discover what diverse participants from across Canada hope and plan for their marriages, and what their attitudes regarding their marriages are.

4. Inclusion Criteria

Individuals who (are):

(1) female, and

(2) engaged to be married

are eligible to participate in this study.

5. Exclusion Criteria

Individuals who (are):

(1) male, and/or

(2) not engaged to be married

are not eligible to participate in this study.

6. Study Procedures

If you agree to participate, you will be asked basic demographic questions about yourself and your fiancé(e). You will also be asked to complete five questionnaires about yourself. These questionnaires will include questions regarding your feelings for your fiancé(e) and other relatives.

You would participate in this study at a computer with internet access.

One of the researchers, Melanie MacEacheron, MSc, is available to answer any questions you may have and provide any needed assistance. She can be reached at _____ Your responses will only be identifiable by the IP address you use when you enter them. You must provide an email

address to receive the \$5 gift card we will provide in appreciation of participation (see details, below), but you may choose to complete the survey and not provide an email address if you do not want the gift card.

It is anticipated that the entire task will take approximately 15 minutes. The entire task will be completed in one session.

The task will be conducted on-line, using Qualtrics.com.

There will be a total of 250 participants: all of these participants will reside within Canada.

7. Possible Risks and Harms

The possible risks and harms to you would be in the nature of discomforts, only.

These discomforts would be those occasioned by you reporting, fully confidentially, some basic demographic information about you and fiancé(e), and several attitudes regarding your romantic relationship and relationship with other relatives which you may find to be of a personal nature. Such attitudes “you may find to be of a personal nature”, would be some of your feelings toward your fiancé(e) and relatives.

Study responses will only be identifiable via the IP address at which the study was completed.

The task will be conducted on-line, using Qualtrics.com. Qualtrics hosts its servers in the United States, thus all data entered into this survey is subject to the US Patriot Act.

8. Possible Benefits

Your participation would allow information to be gathered which may provide benefits to society as a whole. These benefits would include extending understanding of brides'-to-be hopes, plans and attitudes toward their marriages.

9. Compensation

You would receive a \$5 Amazon.com gift card in appreciation of participation. The researchers' email address will be made available to you, within the survey: You would need to send the researchers an email containing your email address, to receive the gift card. The gift card would be emailed to you at the email address you provide. If you choose not to provide an email address, you may still participate, but then would not receive compensation.

10. Voluntary Participation

Participation in this study is voluntary. You may refuse to participate, refuse to answer any questions or withdraw from the study at any time with no negative

effect. You would also still receive full compensation in appreciation of participation.

11. Confidentiality

All data collected will remain confidential. The data collected will consist of responses to the survey itself, as well as the IP addresses of the computers used to complete the surveys. If a participant emails the researchers with her own email address, we will also collect that email address. If the results are published, your name will not be used. Only Dr. Lorne Campbell (Principal Investigator) and Melanie MacEacheron (student researcher), and members of Dr. Campbell's laboratory, will have access to data collected which includes participant identifiers used in the design. No data collected will allow for personal identification of participants. The data from this study will be stored in a locked room supervised by the Principal Investigator. All data will be stored using participant identification numbers only, and will be disposed of after five years.

12. Contacts for Further Information

If you require any further information regarding this research project or your participation in the study you may contact Dr. Lorne

Campbell,

Principal Investigator;

or Melanie MacEacheron, c/o !

student researcher. If you have any questions about this Letter of Information

or the Consent Form, or any questions about the study, contact Melanie MacEacheron at [redacted] now.

If you have any questions about your rights as a research participant or the conduct of this study, you may contact The Office of Research Ethics (519)

[redacted] :

13. Publication

If the results of the study are published, your name will not be used. If you would like to receive a copy of any potential study results, please contact Melanie MacEacheron, [redacted].

14. Consent

Please see Consent Form attached to this letter, for you to consider indicating consent to electronically.

This letter is yours to keep for future reference.

Consent Form

Study Title: Marriage: Hopes, Plans and Attitudes

Study Investigator's Name: Dr. Lorne Campbell, Principal Investigator;

Melanie MacEacheron, student researcher

I have read the Letter of Information, have had the nature of the study explained to me and I agree to participate. All questions have been answered to my satisfaction.

Please choose one of the options below to indicate whether you consent to take part in this study:

I consent

I do not consent

Appendix C

Study 3 Instrument

In which province do you live? *<drop-down menu with ten provinces: if they are not among the first 25 from their reported province to participate, they will see the following message and the survey will not start: "Sorry: you were not among the first to participate. Thank you very much.">*

Marriage: Hopes, Plans and Attitudes

This is a survey of the thoughts and wishes about forming marital relationships, of brides-to-be. But first, please answer a few questions about yourself.

Your age (in years): _____

Sex of your fiancé(e):

- Male
- Female
- Other

Are you currently a student?

- Yes
- No

Is your fiancé(e) currently a student?

- Yes
- No

Please indicate your 2014 annual income (or expected annual income, if currently a student):

- \$0-\$20,000
- \$21,000-\$40,000
- \$41,000-\$60,000
- \$61,000-\$80,000
- \$81,000-\$100,000
- over \$100,000
- choose not to answer

Please indicate your fiancé(e)'s 2014 annual income (or expected income, if he/she is currently a student):

- \$0-\$20,000
- \$21,000-\$40,000
- \$41,000-\$60,000
- \$61,000-\$80,000
- \$81,000-\$100,000
- over \$100,000
- choose not to answer

How close, emotionally, are you to the following people? Please indicate how close, by circling one number on the 6-point scale, where 1 indicates “not at all close”, 6 indicates “very close”, and X indicates “not applicable”.

Not at all	Very	not
close	close	applicable

Mother	1	2	3	4	5	6	X
Father	1	2	3	4	5	6	X
Stepmother	1	2	3	4	5	6	X
Stepfather	1	2	3	4	5	6	X
Adoptive mother	1	2	3	4	5	6	X
Adoptive father	1	2	3	4	5	6	X

Does or did your mother take your father's surname as her own? (tick one) **Yes No**

If not, did she sometimes use his surname? (tick one) **Yes No**

If yes, under what circumstances? (tick any that apply)

in family contexts

in social contexts with close friends

when meeting teachers, doctors or others concerned with her child(ren)

when meeting his work colleagues

in any legal context like driver's licence, health card, etc.

other (please specify) _____

Your current relationship status (tick all that apply):

living with a commonlaw union partner

living with a fiancé

engaged, not co-residing

other (please explain: _____)

What would you say is your ethnic affiliation/ethnicity, or race? _____

What would you say is your fiancé(e)'s ethnic affiliation/ethnicity, or race? _____

What is your religious affiliation? _____

How often do you attend religious services? (tick one)

weekly or more often

monthly

once or twice a year

never or almost never

What is your current level of education?

some high school

high school diploma

some community college/CÉGEP

community college/CÉGEP diploma

some university

Bachelor's degree

Master's Degree

PhD

Professional degree

Do you plan on pursuing further education? (tick one) **Yes** **No**

If yes, please indicate what these further studies will be: _____

How much, if at all, would you say women in your area compete with each other to find the best husband that they can?

1 2 3 4 5 6 7

Not at all

A great deal

SECTION 1:

Please answer the following questions about your hopes and plans with respect to marriage.

Will your wedding be a destination wedding --that is are you getting married far from home?

Yes **No**

How old will you be when you get married to your current fiancé(e)? __ (years)

Will you change, hyphenate (or otherwise combine), or retain your current surname when you marry? Please do *not* check “Retain”, if you will be using your current surname as a middle name after marriage. (Please check one):

- Change
- Hyphenate (or otherwise combine)
- Retain

Where would you like to live? (tick one)

- same city / town as my parents city / town of my partner's parents
 wherever my partner is employed wherever I am employed
 in a different city/town other specify: _____)

Do you have any children? (circle one) **Yes** **No**

If yes, please list them by age and sex _____

Ideally, how many children do you want to have? (enter a number for each)

_____ **sons** and _____ **daughters**

If you have no children now but want / intend to, at what age would you like to have your first?

_____ years (enter a number)

How likely is it that your own mother would help you with your children (if any), in the future?

Not at all						Very	not
	Likely					likely	applicable
1	2	3	4	5	6		X

How likely is it that your own father would help you with your children (if any), in the future?

Not at all						Very	not
	Likely					likely	applicable

1 2 3 4 5 6 X

SECTION 2:**In-laws and Parents****Surnames After Marriage**

One issue on which opinions vary is whether a woman should take her husband's last name (surname). Please indicate your agreement or disagreement with each of the following statements by circling one number on the 6-point scale, where 1 indicates "strongly disagree" and 6 indicates "strongly agree".

	Strongly disagree						Strongly agree
A wife who changes her name to that of her husband should stick to that change (unless she gets divorced).	1	2	3	4	5	6	
In general, women should retain their birth names.	1	2	3	4	5	6	
It's better for children if their parents use the same last name.	1	2	3	4	5	6	

A married
couple's unity is
symbolized and
displayed to others
by a shared last
name.

1 2 3 4 5 6

The equality of
marriage partners is
symbolized and
displayed to others by 1 2 3 4 5 6
the wife's retaining her
birth name.

If a woman has been
married before and her
last name is that of her
former partner, it is best 1 2 3 4 5 6
if she takes her new
partner's surname.

Loss of a portion of
one's personal Identity
occurs with surname 1 2 3 4 5 6
change.

Loss of cultural/ethnic
identity occurs with 1 2 3 4 5 6
surname change.

It is best for children if
both parents keep their 1 2 3 4 5 6
surnames.

If the "hyphenation
solution" is adopted,
both the man and the
woman should use the 1 2 3 4 5 6
hyphenated name.

The “hyphenation
solution” is less suitable
for couples who plan to
have children than for
those who do not.

1 2 3 4 5 6

Simply keeping her birth
name is a better solution
for a professional
woman than
hyphenation.

1	2	3	4	5	6
Strongly disagree				Strongly agree	

In-laws

Another aspect of marriage that is often overlooked is your relationship with your new relatives (your in-laws). Please indicate your agreement or disagreement with each of the following statements by circling one number on the 6-point scale, where 1 indicates “strongly disagree” and 6 indicates “strongly agree”.

Strongly disagree						Strongly agree
----------------------	--	--	--	--	--	-------------------

In-laws are a big reason why the
divorce rate is so high.

1	2	3	4	5	6
---	---	---	---	---	---

I want my in-laws to be involved with
my children.

1	2	3	4	5	6
---	---	---	---	---	---

I would expect my in-laws to include
my children in their wills.

1	2	3	4	5	6
---	---	---	---	---	---

I would expect my in-laws to
help me and my partner

financially, if needed.

1 2 3 4 5 6

Marriages typically work best if you
don't live too close to your

in-laws.

1 2 3 4 5 6

General Attitudes

Politics:

How conservative do you consider yourself to be?

0 1 2 3 4 5 6 7 8 9 10

*not at
all
conservative*

*extremely
conservative*

How liberal do you consider yourself to be?

0 1 2 3 4 5 6 7 8 9 10

*not at
all
liberal*

*extremely
liberal*

How much do you identify as a feminist?

0 1 2 3 4 5 6 7 8 9 10

not at all

extremely

Feminism:

Strongly
disagree

Strongly
agree

The leaders of the women's
movement may be extreme, but
they have the right
idea.

1 2 3 4 5

There are better ways for women to
fight for equality than through the
women's
movement.

1 2 3 4 5

More people would favor the
women's movement if they knew
more about it.

1 2 3 4 5

The women's movement has
positively influenced
relationships between men and
women.

1 2 3 4 5

The women's movement is too
radical and extreme in its views.

1 2 3 4 5

The women's movement

has made important

gains in equal rights and

1

2

3

4

5

political power for women.

Feminists are too
visionary for a
practical world.

1	2	3	4	5
---	---	---	---	---

Feminist principles should
be adopted everywhere.

1	2	3	4	5
---	---	---	---	---

Feminists are a menace to
this nation and the world.

1	2	3	4	5
---	---	---	---	---

I am overjoyed that women's
liberation is finally
happening in this country.

1	2	3	4	5
---	---	---	---	---

Relationship:

For you personally, how important is each of the following factors in a romantic/sexual
relationship? *<to be presented in random order>*

Both of us having similar attitudes

1	2	3	4	5	6	7	8	9
<i>not</i>							<i>extremely</i>	
<i>important at all</i>							<i>important</i>	

Having an egalitarian (equal power) relationship

1	2	3	4	5	6	7	8	9
<i>not</i>							<i>extremely</i>	

*important at all**important*

Each of us being able to have our own career

1 2 3 4 5 6 7 8 9

*not**extremely**important at all**important*

Sharing financial responsibilities equally

1 2 3 4 5 6 7 8 9

*not**extremely**important at all**important*

Having a supportive group of friends as well as my romantic/sexual partner

1 2 3 4 5 6 7 8 9

*not**extremely**important at all**important*

Having major interests of my own outside the relationship

1 2 3 4 5 6 7 8 9

*not**extremely**important at all**important*

Both of us having similar political attitudes

1 2 3 4 5 6 7 8 9

not *extremely*
important at all *important*

Being able to laugh easily with each other

1 2 3 4 5 6 7 8 9
not *extremely*
important at all *important*

Spending as much time together as possible

1 2 3 4 5 6 7 8 9
not *extremely*
important at all *important*

Knowing that the relationship will last a long time

1 2 3 4 5 6 7 8 9
not *extremely*
important at all *important*

Sharing as many activities with my partner as possible

1 2 3 4 5 6 7 8 9
not *extremely*
important at all *important*

Sexual fidelity in the relationship

Please enter the text you see in this picture: _____

<CAPTCHA technology picture including text inserted here>

Thank you for participating in my research! If you would like to claim your \$5 electronic gift card, please send an email to [j](#) with “MMLC2013” in the Subject Line. Your gift card will be sent to the email address you provide.

Appendix D
Ethics Approval



Western University Non-Medical Research Ethics Board
NMREB Amendment Approval Notice

Principal Investigator: Prof. Lorne Campbell
Department & Institution: Social Science\Psychology, Western University

NMREB File Number: 105612
Study Title: Hopes, plans and attitudes
Sponsor:

NMREB Revision Approval Date: October 13, 2015
NMREB Expiry Date: July 29, 2016

Documents Approved and/or Received for Information:

Document Name	Comments	Version Date
Revised Western University Protocol		2015/10/09
Revised Letter of Information & Consent		2015/10/09
Recruitment Items	Poster	2015/10/09
Other	Instrument	2015/10/09
Other	Debriefing	2015/10/09

The Western University Non-Medical Science Research Ethics Board (NMREB) has reviewed and approved the amendment to the above named study, as of the NMREB Amendment Approval Date noted above.

NMREB approval for this study remains valid until the NMREB Expiry Date noted above, conditional to timely submission and acceptance of NMREB Continuing Ethics Review.

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario.

Members of the NMREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB.

The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

Ethics Officer, on behalf of Riley Hinson, NMREB Chair

Ethics Officer to Contact for Further Information: Erika Basile ___ Nicole Kaniki ___ Grace Kelly Mina Mekhail ___ Vikki Tran ___

This is an official document. Please retain the original in your files

Vita

Name: Melanie D. MacEacheron (nee Demarte)

Post-Secondary Education and Degrees:

-PhD, Department of Psychology, University of Western Ontario

-MSc, Department of Psychology, McMaster University

-Intermediate French (continuing education course), Ryerson University

-Bar Admission Course, Law Society of Upper Canada

-LLB, Common Law, University of Ottawa

-BSc, Hons. Psychology (Biology Minor), *Summa Cum Laude*, McMaster University

Peer-Reviewed Publications:

Nussbaum, D., MacEacheron, M., Douglass, M. D., Watson, M., & Daoud, S. L. S. B. Utility of Clinical, Personality and Aggression Typology Variables to Predict Severity of Violent Recidivism, *Criminal Justice & Behavior* (accepted: under revision)

MacEacheron, M., & Campbell, L. (2017). Moderation of female-female competition for matings by competitors' age and parity, *Handbook of Female-Female Competition*, Fisher, M. (Ed.), Oxford University Press: New York (in press)

MacEacheron, M. (2016). North American women's marital surname change: Practices, law, and patrilineal descent reckoning, *Evolutionary Psychological Science*, 2, 149-161.

Nussbaum, D., & MacEacheron, M. (2011). Legal and Psychological Complexities in Prediction of Severity of Violent Recidivism Necessitate New Research, *Criminal Law Quarterly*, 2, 242-264.

MacEacheron, M. (2011). Hawaii data: Women's marital surname change by bride's age and residence jurisdiction, *Names*, 59, 4-11.

Selected Conference Presentations:

Invited Talk:

MacEacheron, M. (2013). State Female Median Full-Time and Salaried Income and In-law Avoidance Motivation: novel predictors of women's surname retention at marriage: Darwin Day Conference (Brock University), October.

Selected Symposium Presentations:

MacEacheron, M., & Campbell, L. (2015). Defense of romantic partners from competitors' insults: Association for Psychological Sciences (New York, New York), May

MacEacheron, M. & Nussbaum, D. (2015). Legal requirements for prediction of violent recidivism, and a novel hybrid predictive model tested: Association for Psychological Sciences (New York, New York), May

MacEacheron, M., & Nussbaum, D. (2015). Predicting severity of future violence: Legal requirements, a hybrid method and empirical support: Canadian Psychological Association (Ottawa, Ontario, Canada), June

MacEacheron, M., & Nussbaum, D. (2015). North American legal requirements to predict severity of future violence and a hybrid predictor: American Psychological Association (Toronto, Ontario, Canada), August

MacEacheron, M. (2014). Predictors of women's premarital surname retention and related attitudes: Association for Psychological Sciences (San Francisco, California), May

Selected Other Talks:

MacEacheron, M. (2016). Relationship of women's marital surname change with (1) age, income, and perceived female-female competition among brides-to-be, and (2) duration of marriage and number of children among divorcées: HBES Conference (Simon Fraser University), July

MacEacheron, M., Kohut, T., Campbell, L., & Fisher, W. A. (2016). No sex difference in proportion enrolling in minimally-different studies involving viewing pornographic versus photographic images: NEEPS Conference (St. Mary's University), June

MacEacheron, M., & Campbell, L. (2015). Evidence for defence of opposite-sex romantic partner: Retrospective reporting and economic game: NEEPS Conference (Suffolk University), April

MacEacheron, M., Phills, C., & Campbell, L. (2014). SOI interacts with sex, but differently, in predicting interracial romance/sexual partnership in undergraduate versus mTurk samples: NEEPS Conference (SUNY New Paltz), April

MacEacheron, M., Campbell, L., Straehle, S., & Stanton, S.C.E. (2012). Similarities and Differences in How Men and Women Respond to their Romantic Partners Standing Up for Them in Either an Aggressive, Assertive, or Passive Manner: ISHE Conference (University of Vienna), August

MacEacheron, M. (2012). U.S. Women's Marital Surname Change by Bride's Age and State: IARR Conference (DePaul University), July

Selected Awards:

- American Psychological Association Student Travel Grant, 2015
- Ontario Graduate Scholarship, 2012-2013
- Western Graduate Research Scholarship, 2011-2015
- Feminist Evolutionary Perspectives Society Award for Best Poster, NEEPS Conference, 2010
- McMaster Psychology, Neuroscience and Behaviour departmental scholarship, 2007-2009
- Entrance Scholarship, Elwin Merit Award, McMaster University

Teaching and Student Supervisory Experience:

- Sessional Lecturer, 2016 (University of Western Ontario), and 2010 (Mohawk College of Applied Arts and Technology)
- Honours Thesis student supervision, 2015-2016
- Senior undergraduate Independent Study co-supervision, 2013-2015
- Supervision of volunteer, undergraduate, Research Assistants, January 2013-current
- Teaching Assistant, 2011-2014 (University of Western Ontario), and 2007-2008 (McMaster University)

Selected Legal Work Experience:

- Legal Researcher and Writer, Department of Justice
- Legal Researcher and Writer, Law Society of Upper Canada
- Legal Counsel/Research Lawyer, Travel Industry Council of Ontario

Selected Reviewing:

- Ad hoc, *Family Relations*
- Association for Psychological Science Student Research Grant Competition, 2014
- Oxford University Press' *Handbook on Female-Female Competition*
- NEEPS Conference abstract submission review, 2015-2017