Articles

Drive to Marry and Social Prescription in Chinese Online Daters

Rense Lange[ab], James Houran*[ab], Song Li[c]

[a] ISLA – Instituto Politécnico de Gestão e Tecnologia, Lisbon, Portugal. [b] Integrated Knowledge Systems, Chatham, IL, USA. [c] Shenzhen Zhenai Information Technology Co. Ltd, Shenzhen, China.

Abstract

Individuals' eagerness or desire to get married was investigated in a sample of online daters in China (n = 3,389) using a 6-item version of the Drive to Marry (DTM) Scale, which was modified with new questions about normative pressures to marry given the cultural emphasis on social prescription in Eastern versus Western culture. The questionnaire items conformed to a unidimensional Rasch scale with interval-level measurement, although two themes seemed inherent to DTM – positive feelings of excitement or anticipation and negative feelings of urgency or desperation. Consistent with previous theory and research, women exhibited stronger DTM than men and normative pressures resulted in greater perceived DTM. Finally, significant response biases by sex were found, indicating that men and women differ in their qualitative experience of DTM. The results offer a preliminary cross-cultural validation and perspective on DTM and expand the present conceptualization and measurement of the construct to guide future research and theory-building.

Keywords: drive to marry, social prescription, cross-cultural, Rasch scaling, matchmaking, online dating, sex effects

Online dating or matchmaking sites typically are one of two types – generic kinds that cater to individuals interested in a wide variety of relationships (e.g., casual dating, marriage) versus niche services exclusively promoting long-term, committed relationships (Houran, 2009; for reviews see Finkel, Eastwick, Karney, Reis, & Sprecher, 2012; Houran, Lange, Rentfrow, & Bruckner, 2004). This latter type is especially interesting from a theory-building perspective, as such sites often research the attitudes, beliefs, and motivations of their users in an attempt to improve service standards and product offerings (Houran, 2009). Although many demographic and psychosocial variables have long been studied in understanding the drivers for using these forums as well as the process of online relationship formation in general (e.g., Baker, 2002; McKenna, Green, & Gleason, 2002; Whitty & Gavin, 2001) and in cross-cultural contexts (Lange, Houran, & Li, 2015), to date no academic studies have examined the potentially important and specific role of a relatively recently introduced construct called Drive to Marry (DTM), i.e., one's eagerness or desire to get married (Blakemore, Lawton, & Vartanian, 2005).

As is shown in Table 1, Blakemore et al.'s (2005) notion of DTM is measured by a 5-item Drive to Marry Scale that purportedly quantifies "feelings of pride or excitement about getting married, rather than the value of, or commitment to, the marital role and its responsibilities (e.g., as examined by Amatea, Cross, Clark, & Bobby, 1986)."

Table 1

Summary of Rasch Analyses

	Summary				Factors								
					Demographics				Social Norms				
Item	Loc	SE	Outfit	Load	Sex	Age	Marital	Educ	Friends	Family	Colleages	Society	Self
Do whatever necessary[a]	-0.75	0.03	1.27	0.34	-0.25**	0.02	0.11	0.02	0.00	-0.05	-0.04	0.21*	-0.04
Cannot wait[b]	1.08	0.03	0.99	0.69	0.00	0.00	-0.29**	0.09	-0.08	-0.05	-0.10	-0.23**	-0.24**
Feel proud[c]	0.76	0.03	0.81	-0.26	0.21**	0.19*	0.33**	-0.03	0.07	0.00	0.00	0.00	0.11
Major life goal[d]	-0.35	0.03	0.75	-0.50	0.15*	-0.02	-0.02	0.03	0.03	-0.05	0.00	0.03	0.00
Most exciting[e]	0.31	0.03	1.01	-0.62	-0.16*	-0.57**	-0.45**	0.00	0.00	0.14*	0.07	0.03	0.24**
How long to get married[f]	-1.05	0.03	1.35	0.48	0.00	1.44**	1.15**	-0.43**	-0.28	0.00	0.20	-0.10	-0.29*
Reference group					Men	under 30	Never Married	Masters / Doctorate	Checked	Checked	Checked	Checked	Checked
Main Effect					-0.86**	-0.45**	0.08	-0.10	0.19*	0.18*	0.07	0.36**	0.47**

[a]I am ready to do whatever is necessary to find a spouse. [b]I cannot wait to get married. [c]Being married will make me feel proud. [d]I feel I will have achieved a major life goal when I get married. [e]Becoming engaged would be one of the most exciting things that could happen to me. [f]Once you find a suitable match, how long do you expect it will take for you to get married?
*$p < .01$. **$p < .001$.

Blakemore et al. (2005, p. 328) reported that women scored higher on the DTMS than did men. In both genders, scores on the DTMS were predicted by the value of parental role and by concern about others' views of them (public self-consciousness). In women, DTMS scores were also predicted by traditional attitudes toward gender roles, and there was a trend for women who valued the occupational role to have a lower scores on the DTMS. Conservative women, women who valued the parental role, and women with higher DTMS scores were also more likely to want to use the title "Mrs." and to adopt their husband's surname.

Normative Pressures

We note that Blakemore et al.'s conceptualization and measurement of DTM emphasized *personal* over *social* prescription. In this context, prescriptive support is defined as a sense of obligation to remain in a relationship fueled by either personal or social reasons (see, e.g., Cox, Wexler, Rusbult, & Gaines, 1997). A personal reason ("personal prescription") involves internalized beliefs that advocate remaining in a relationship, whereas "social prescription" refers to believing that significant members (or "referents") of one's social network support persisting in a relationship, for either moral or pragmatic reasons. Thus, the notion of social prescription coincides with the same role as subjective norms included in the classic volitional decision-making model of the Theory of Reasoned Action (or Planned Behavior) (Ajzen, 1991; Ajzen & Fishbein, 2005; Fishbein & Ajzen, 1975; Sniehotta, 2009; for a review see: Armitage & Conner, 2001; Sheppard, Hartwick, & Warshaw, 1988). Here, subjective norms are seen as one of the factors that determine one's intention to perform a particular behavior.

Cox et al. (1997) found support for social prescription in commitment formation but not for personal prescription, i.e., the belief that one "ought to persist" influences feelings of commitment in ways extending beyond "wanting to persist," "feeling bound to persist," or "having no choice but to persist" (p. 87). These authors concluded that many of the previous studies on relationship commitment have been shortsighted due to neglecting the role of prescriptive support. It seems reasonable to expect that the same also applies to the DTM construct. Therefore,

potential biases related to normative factors should be considered, including pressures from sources like friends, family, colleagues, and society at large.

Of course, the prevalence and impact of such pressures is likely to vary across communities or cultures. For example, past research indicates that attitudes toward commitment in a relationship differ between Chinese and American societies (Tzeng, 1993). Specifically, Hsu (1981) observed that for the Chinese, the terms "romantic relationship" or "dating relationship" imply the elements of necessary seriousness and long-term commitment, so romantic relationships are often perceived as one step before marriage. On the other hand, a committed relationship in American culture tends to be grounded in strong emotional experiences (e.g., Dion & Dion, 1988). Therefore, commitment typically has a more pragmatic function in the Chinese culture, which often reflects the obligation or responsibility of a person that is involved in a relationship from a more collectivist, versus Western-based individualistic, orientation (Bagozzi, Wong, & Yi, 1999; Hatfield & Rapson, 2002; Hsu, 1985; Markus & Kitayama, 1991; Wang, 2004). Accordingly, it might be expected that a serious desire, anticipation, and intent to get married would be markedly evidenced in a sample of Chinese singles who are currently using a matchmaking service to find a spouse. Indeed, Lange et al. (2015) recently validated Desire to Marry as an important variable that single men and women in China use to evaluate the suitability of romantic prospects.

The Present Research

Obviously it would be ideal to conduct a formal cross-cultural study on DTM directly comparing Eastern and Western samples. However, at the present time we have been only successful in gaining access to a verified sample of active online daters residing in China. The present research thus forms a first step that focuses on the DTM's psychometric properties and biases in contemporary Chinese samples, thereby cross-validating and extending Blakemore et al.'s (2005) conceptualization and measurement of the construct. Two sets of questions will be addressed. First, although the DTM items were found to correlate sufficiently to form factors does not change the fact that the scores it produces are ordinal indices at best.

As described in more detail in the Method section, we examined the DTM questions within a Rasch (1960/1980) modeling framework. This approach will yield interval-level measurement of the construct, while simultaneously quantifying the model fit of items and persons along the same interval level dimension (called Outfit). Rasch scaling also identifies items that are answered in qualitatively different ways by subgroups of respondents (e.g., men vs. women) *with equal DTM levels*, so as to identify items that would bias the estimation of respondents' level of DTM. Moreover, the Rasch model residuals can be factor analyzed to determine whether items define a unidimensional construct. By identifying the best fitting subset of unbiased items, Rasch scaling yields more realistic information regarding the distribution of DTM scores, as well as individual and group differences. We refer readers to Bond and Fox (2007) for a general introduction to Rasch scaling. Also, technical details and a thorough description of the parameter estimation technique can be found in Wright and Masters (1982).

Secondly, Blakemore et al.'s study relied exclusively on a sample of Western-based respondents. Thus, when administered to Chinese daters there is the distinct possibility that DTM scores are affected by cultural differences or by idiosyncratic features of the questions or their translations (see e.g., Lange et al., 2015; Lange, Thalbourne, Houran, & Lester, 2002). Rasch scaling can be used to assess potential biasing effects of factors like as age, sex, and education are studied in questionnaire design bias, and we interested readers can refer to our previous work for detailed discussions on the rationale and methodologies in question (Lange et al., 2002; Lange, Irwin, & Houran, 2000; Lange, Thalbourne, Houran, & Storm, 2000).

Method

Participants

Data derived from a convenience sample of 3,389 paid subscribers (M_{age} = 30.4 yrs, *SD* = 8.2 yrs, range = 18 to 56 yrs.) to the Zhenai.com matchmaking service, consisting 1,780 men and 1,609 women. Respondents were not compensated for their participation. We note that this is not a representative sample of Chinese residents. As a matter of fact, the respondents were arguably not "traditionalists" in a social sense by the simple fact that they were seeking committed romantic relationships via the Internet. Therefore, our sample might best be characterized as "globalized" Chinese respondents (cf. Lange et al., 2015).

Measures and Procedure

We administered a 6-item modified, online version of Blakemore et al.'s (2005, pp. 329-330) Drive to Marry Scale that was translated into Chinese by bilingual members of Zhenai.com's marketing team. The original scale was constructed using factor analysis, yielding five (5) items to be rated on a five-point scale (1 = disagree strongly; 5 = agree strongly) and yielding a Cronbach's alpha of .86. The final scale score was a mean score of the five items.

To ensure consistency of the response format, our version omitted the only reverse-scored item in the original scale ("Getting married is not one of my top priorities"). Further, we expanded the scale with two (2) new items aimed at measuring more extreme trait levels. One item was a rating statement ("I am ready to do whatever is necessary to find a spouse"), and the other item was a fill in the blank question addressing expectation of marriage ["Once you find a suitable match, how long do you expect it will take for you to get married? ____ (months)"].

Next, a panel composed of marketers and matchmakers at Zhenai.com suggested altering the text of the original directions and response categories in order to be more aligned and relevant to Chinese culture: "Please tell if the below description is suitable for you" using four (4) categories: "Definitely Not Suitable, Somewhat Not Suitable, Somewhat Suitable, and Definitely Suitable." We note that our previous scale developments and revisions have consistently utilized four categories with no neutral option.

Finally, in addition to the independent variables of respondent age, sex, education level, and marital status, we measured respondents' social pressure (prescription) with a multiple choice inventory drawing on the Theory of Reasoned Action (i.e., "From your own point of view, which of the following sources think you should get married in the near future? (click all that apply): friends, family, colleagues at work/school, society at large, myself"). These particular sources of social influence were selected based on the practical insights from Zhenai.com matchmakers who have successfully paired Chinese singles for marriage.

Rasch Scaling

Rasch scaling assumes the existence of a latent trait that serves to quantify a respondent's (t) trait level (T_i), together with the level (D) at which a question (j) address this trait. The parameter D_j is also called this item's difficulty because it reflects items' tendency to elicit lower vs. higher ratings, for higher vs lower and it is therefore also referred to as this item's difficulty. Following the parameterization using in Bond and Fox (2007), the approach models the probability P_{ijk} – the probability that person i when faced with question j will select the (ordinal) answer k – based on the log odds:

$$\ln(P_{ijk} / P_{ij(k-1)}) = T_i - D_j - F_{jk} \tag{1}$$

where F_{jk} represents the item specific step values, i.e., the point at which for item i the ratings (k-1) and k are equally likely, and $F_0 = 0$ (see, e.g., Wright & Masters, 1982).

In the following we use Linacre's (2013) Winsteps software to estimate the various parameters in Equation 1. Winsteps also quantifies model fit in terms of parameters' "Outfit", which is a standardized mean-square based index with a theoretical value of 1.0 (see, e.g., Wright and Masters, 1982). In general (Linacre, 2013), Outfit values below 1.4 are generally deemed acceptable. Note that in Equation 1 it is assumed that all variables contribute in an additive fashion, such that the variables exhibit the same pattern across other variables. Operationally this means that if we identify two (or more) sets of respondents with equal trait levels, then the D_j should be the same across groups. The finding of varying D_j across subgroups is also called Differential Item Functioning (DIF), and the difference between an item's estimated D_j across groups quantifies DIF.

A check on DIF and dimensionality is also provided by a factor analysis of responses residuals, i.e., the difference between the actual ratings and those predicted by Equation 1. In contrast to standard factor analyses, model fit is supported by the absence of any clear factors. Winsteps can provide tests for DIF as well as analysis of the residuals.

Results

Preliminaries

Consistent with expectations, the four items from Blakemore et al. (2005) and our two original items conformed to a unidimensional DTM scale because all items' outfit values fell below the maximum criterion value of 1.4 (Linacre, 2013). The average person measure (i.e., the T_i in Equation 1) is 0.73 logits (*SD* = 1.70 logits), and the approximate overall reliability is 0.79. Table 2 shows the raw-score to Rasch translation in logits, the associated local SE, as well as more user-friendly scale scores with a mean of 100 and standard deviation of 10. In addition, the last column shows the local reliabilities, which range from 0.75 at the higher extreme to 0.94 near the middle of the dimension.

As is indicated by their (lower) logit values, Table 1 shows that items reflecting anticipation or urgency for marriage (ready to find a spouse, marriage is a major life goal) tend to precede items in the hierarchy that reflect feelings of pride and excitement regarding marriage (higher logit values reflect that items received lower ratings). The "easiest" item concerns respondents' estimation of the number of months they expect it to take to get married once a suitable prospect has been found (at D = -1.05 logits). Please note that this value depends on the way the number of months was dichotomized here (12 months or fewer = 1, and 13 or more = 0).

As a further check we also performed a factor analysis of items' residuals. The findings listed in Table 1 indicate that items' loadings on the first residual factor range from -0.62 to 0.69, thus raising the possibility of item multidimensionality. However, the attenuation-corrected correlation among the three person measures (i.e., T in Equation 1) as computed over items with low, medium, or intermediate loadings all exceed 0.92. Therefore, we had strong justification to treat the items as unidimensional throughout the following.

Table 2

Raw Sum Score to Rasch Logit Transformation.

Raw Sum	Scale Score[a]	Logit Values		Scaled Values		Local Reliability
		Estimate	SE	Estimate	SE	
0	4	-4.51	1.85	23.0	27.3	—[b]
1	15	-3.25	1.05	41.5	15.5	0.78
2	22	-2.45	0.78	53.3	11.5	0.89
3	27	-1.92	0.68	61.0	10.0	0.92
4	30	-1.49	0.63	67.3	9.3	0.93
5	34	-1.11	0.61	73.0	9.0	0.93
6	37	-0.74	0.60	78.3	8.8	0.94[c]
7	40	-0.38	0.61	83.8	9.0	0.93
8	43	-0.01	0.61	89.3	9.0	0.93
9	47	0.38	0.63	94.8	9.3	0.93
10	50	0.78	0.65	100.8	9.5	0.92
11	54	1.22	0.67	107.3	10.0	0.92
12	58	1.69	0.71	114.3	10.5	0.91
13	63	2.24	0.77	122.3	11.3	0.89
14	69	2.90	0.87	132.0	12.8	0.86
15	78	3.86	1.13	146.0	16.5	0.75
16	90	5.26	1.90	166.5	28.0	—[b]

[a]Scaled score, $M = 50$, $SD = 15$ in the current sample. [b]Cannot be estimated. [c]Maximum reliability.

Independent Variables

The following describes two type of analyses for each of the demographic and normative factors listed on the right side of Table 1. Each independent variable was dichotomized (where necessary) and coded as is described along the (bottom) row of the table labeled "Coded as High.'" This row indicates for instance that men were coded as "high" and "women" as low – and thus a positive value in the "Sex" column indicates that the item was harder for men than for women with equal DTM levels. We first describe a factor's main effect on respondents' overall DTM measure, thus revealing group differences with respect to the normative pressures faced by respondents. Secondly, we report items' DIF associated with each factor.

Sex — Table 1 ("Coded as High") indicates that the effects are interpreted relative to the data for the men - i.e., parameter estimates for women are subtracted from those for men. For instance, since men reported lower DTM ($M = 0.31$ logits) than did women ($M = 1.17$ logits) (not shown), Table 1 lists the difference as -0.86 logits and this effect differs significantly ($p < .001$) from 0. When men and women at equal levels of DTM are considered, items with negative DIF values were more "harder" for men than for women with equal DTM. Thus, when men and women feel equal pressures to marry, they perceive qualitatively different pressures. Men will feel more "ready to do whatever is necessary" and to anticipate the excitement of "becoming engaged," whereas women more likely focus on feeling proud and having "achieved a major goal."

Age — Not surprisingly, DTM varies significantly with respondents' ages. Table 1 compares respondents under 30 years of age and those 30 or older, and it can be seen that the younger respondents experience 0.45 logits less DTM than do the older respondents ($p < .001$). Figure 1 plots the average DTM across the entire age range, and a very interesting picture emerges. In our data, DTM ranges from a low of -0.20 logits at age 19 to a high of

1.28 logits at age 34, a range of nearly 1.5 logits. Specifically, marriage pressures build sharply from age 18 until respondents' mid-thirties, at which point a slow decrease commences. Nevertheless, DTM remains high and at age 55 years it is still no less than the pressures around age 25.
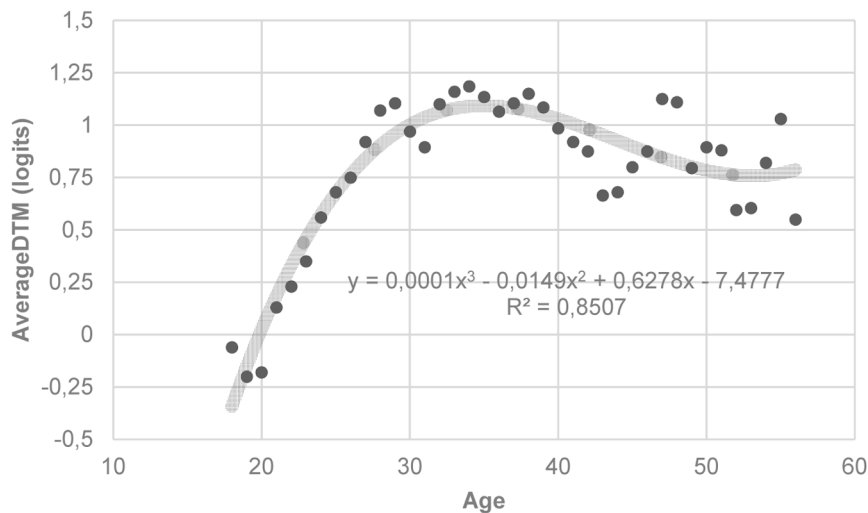

Figure 1. Average drive to marry by age.

The pressures to marry are not uniform across age. Table 1 shows that respondents with equal DTM but of different ages report a different pattern of pressures. Those under 30 perceive becoming engaged as "one of the most exciting things that could have happen." By contrast, the older respondents disproportionately reported feeling proud and they also expected to get married quicker than did equally-pressured younger respondents. Note that a third order polynomial curve was fitted for illustrative purposes, however we do not attach any significance to its cubic nature.

Marital Status — When comparing respondents who have never been married and those who had divorced or become widowed, no significant overall differences in DTM levels are found. However, among those experiencing equal pressure, respondents who had never been married often "cannot wait to get married," or consider "becoming engaged … one of the most exciting things that could happen." By contrast, those who had divorced or become widowed are more likely to "feel proud" to be married and they expect to get married quicker than those who had never married (and who experienced equal DTM).

Education — The difference in perceived DTM between those with a Master's or Doctoral degree (including bachelor, masters, and Ph.D. degrees) and those without such degrees is quite small (0.10 logits) and not statistically significant ($p > .05$). When comparing respondents with equal DTM, the nature of the experience pressures is very similar, with one exception: the expectation of being married within one year. Here, at equal levels of DTM, those without higher degrees think it is more likely that they might be married within one year than do those with higher degrees. However, the effect is not nearly as strong (0.43 logits) as are the DIF effects for the age and marital status factors, both of which exceed 1.0 logits.

Normative Pressures — The right side of Table 1 also lists the five types of normative pressures due to social prescription, according to the social referent involved. First, as expected, when respondents did recognize one

of these pressures then DTM increased, albeit that the effect of one of these (colleagues' opinions) fails to reach statistical significance. To obtain an overall picture, Figure 2 plots the average DTM as a function of the number of normative sources that had been identified by the respondents. It can be seen that DTM increases with the number of sources. The averages range from 0.58 logits for just one source, to 1.57 logits when all five sources were checked ($F(5, 3383) = 15.63$, $p < .001$). The size of the dots in Figure 2 reflect the number of cases per number of normative sources. It can be seen that most respondents listed just a single normative referent ($n = 2183$, or 64.4%), while just 61 respondents (or 1.8% of the total sample) listed no referents at all.
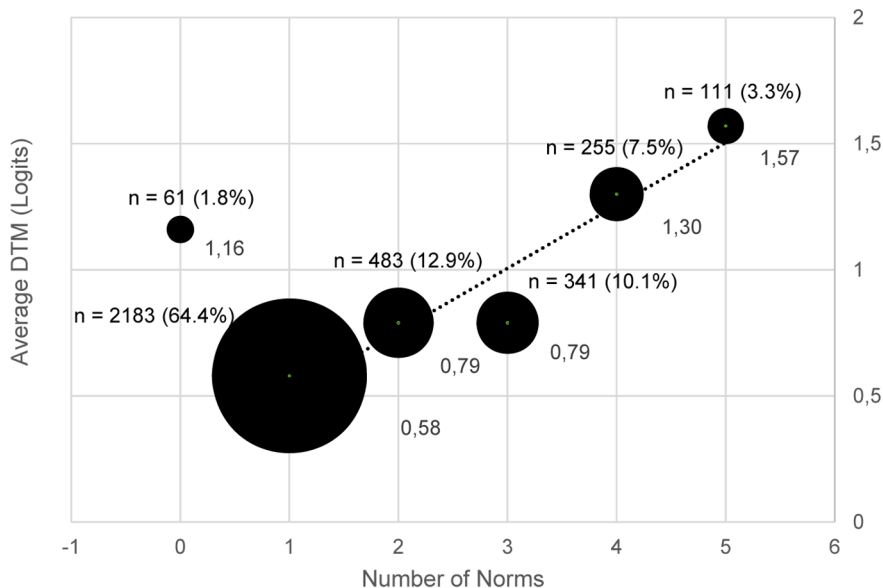

Figure 2. Average drive to marry by number of normative sources.

Secondly, the right side of Table 1 shows the DIF effects for each of the five normative pressures. Holding DTM constant, there remain clear qualitative differences in the nature of respondents' perceived pressures depending on the source of such pressures. For instance, those who perceive pressure from "Society" feel less pressured to "do whatever is necessary to find a spouse" than those who don't feel this particular pressure. Note that the both groups might feel pressures from any of the other sources as well. Next, when feeling normative pressure from "Society" and/or "Self" increases impatience to get married, relative to other respondents with similar DTM, whereas the DIF introduced by pressures from friends, family, and colleagues is insubstantial while failing to reach statistical significance. Somewhat surprisingly, the pressures of respondents' families and/or self-generated pressures, disproportionately decrease the feeling of excitement about becoming engaged. Perhaps, this finding indicates that self and family created negative feelings about being single, thereby lessening excitement. Those experiencing normative pressures generated by Friends and Self, appear more optimistic about the time it will take to get married.

Interestingly, feeling proud about being married and seeing being engaged as a major life goal are not disproportionately affected by any of the five sources of social pressures studied here.

Ancillary Analyses

The findings from the latter analyses suggest that the sources of the normative pressures themselves should be treated as if these were test items. The results of doing so are reported near the (right) bottom of Table 1 in the rows labeled "Social Referents: Item Locations" and "Social Referents: Outfit"). It can be see that "family is the "easiest" (i.e., most frequently occurring) social pressure (D = -0.99), followed by "self," "friends,", and "colleagues" (D = 0.20), while "society" is by far the hardest (i.e., least frequently occurring) social pressure (D = 1.40). At this point, we cannot recommend that these items should simply be added to the scale, the reasons being that (a) the items show considerable DIF, while (b) the Outfit of at least one source of pressure ("society") is quite poor (Outfit = 2.12). Thus, further research is needed to address these issues.

Discussion

The present results validate the Drive to Marry in a cross-cultural context and extend our understanding of this construct in notable ways. In particular, our adaptation of Blakemore et al.'s (2005) Drive to Marry Scale formed a probabilistic Rasch (1960/1980) hierarchy in a sample of Chinese online daters. Furthermore, we found that the DTM construct, at least as expressed in some sub-groups of Chinese culture, incorporates elements that go beyond mere feelings of pride or excitement about getting married to now include attitudes that clearly motivate action and behavior and directly reference an individual's "drive" or "urgency" to achieve the outcome. We invite investigators to validate our 6-item Revised Drive to Marry Scale (R-DTMS) within other respondent pools to ensure it generalizes outside our Chinese sample. We note that there is some evidence suggesting that there are two types of dynamics inherent to the DTM construct. One dynamic seems to reflect overtly pleasant feelings (pride, excitement, achievement), whereas the other is arguably less positive and involves a marked sense of expectation and urgency to marry, perhaps even desperation. These dual, and perhaps competing, elements were not clearly established in the original scale, although we expect they will replicate in Western samples. This hypothesis should be explored and validated in additional work, and this line of inquiry can profitably guide future expansions of the scale using the methods outlined by Lange (e.g., Lange et al., 2002; Lange, Irwin, & Houran, 2000; Lange, Thal-bourne, et al., 2000).

The original DTM Scale and our modified version showed similar gender differences in attitudes toward marriage across different cultural contexts, i.e., women reported greater pressure towards marriage than did men. We further observed that marriage pressures build sharply until respondents' mid-thirties, before it returns to its level at around age 25. No statistically significant difference in DTM were found among respondents who have never been married and those who had divorced or become widowed. Also, DTM did not vary significantly across respondents' educational levels. However, DTM proved to be quite sensitive to normative pressures due to social prescription, similar to findings reported in the literature on relationship commitment. That is, when respondents recognize pressures exerted by each of the five sources studied here, this resulted in greater perceived DTM. These effects were cumulative, as DTM increases with the number of normative sources recognized by the respondents. It is important to note that each item showed noticeable DIF, indicating that DTM varied in a qualitative sense as well. For instance, relative to equally driven women, men will feel more excitement and a readiness to "do whatever is necessary," whereas women's DTM revolve around feeling proud and having "achieved a major goal." Also, relative to younger respondents, older respondents disproportionately stressed feeling proud and getting married quicker - i.e., appeared that older respondents feel greater hurry to get married.

Finally, we should comment on the DTM construct in relation to general commitment issues in romantic relationships. Most views emphasize the role of *commitment* once a relationship is formed (e.g., Adams & Jones, 1997; Sternberg, 1986, 1988), whereas others discuss a person's attitude towards commitment as an antecedent variable (e.g., Arriaga & Agnew, 2001; Rusbult & Buunk, 1993) or one that even functions in a somewhat hybrid fashion – an antecedent attitude that carries over and impacts the quality of a newly formed bond (see e.g., Amatea et al., 1986). Blakemore et al.'s (2005) treatment arguably suggests that DTM acts like a hybrid variable in that correlates with an individual's attitudes about gender and parental roles and relationship identity, and in this way, it may influence partner selection and subsequently reinforce existing attitudes about a partner once a relationship is established. Therefore, we agree with Blakemore et al. (2005, p. 328) that DTM likely does not manifest from commitment to a specific person or role, but rather may well represent commitment to a sense of idealism – be it personal fulfillment and identity as exemplified in the West or collective fulfillment and obligation seen more in the East.

If this supposition is valid, we would expect DTM to act as a significant cognitive bias during the course of mate selection, similar to the cognitive-emotional processes operating in committed relationships. For instance, high levels of relationship satisfaction can involve positive distortions (Fowers & Olson, 1993), or what Edmonds (1967) viewed as social desirability bias in relationship quality. This tendency to perceive a marital or committed relationship in unrealistically positive terms strongly resembles psychological constructs such as positive illusions (Taylor & Brown, 1988) and unrealistic optimism (Scheier & Carver, 1992), which have been shown to involve information-processing biases. Our results demonstrate that these and other critical questions can now be answered with a more precise psychometric description and measurement of DTM, which informs current theory-building and aims to guide future research.

Competing Interests

The authors have declared that no competing interests exist.

References

Adams, J. M., & Jones, W. H. (1997). The conceptualization of marital commitment: An integrative analysis. *Journal of Personality and Social Psychology, 72*, 1177-1196. doi:10.1037/0022-3514.72.5.1177

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*, 179-211. doi:10.1016/0749-5978(91)90020-T

Ajzen, I., & Fishbein, M. (2005). The influence of attitudes on behavior. In D. Albarracin, B. T. Johnson, & M. P. Zanna (Eds.), *The handbook of attitudes* (pp. 173-221). Mahwah, NJ: Lawrence Erlbaum.

Amatea, E. S., Cross, E. G., Clark, J. E., & Bobby, C. L. (1986). Assessing the work and family role expectations of career-oriented men and women: The Life Role Salience Scales. *Journal of Marriage and the Family, 48*, 831-838. doi:10.2307/352576

Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behavior: A meta-analytic review. *The British Journal of Social Psychology, 40*, 471-499. doi:10.1348/014466601164939

Arriaga, X. B., & Agnew, C. R. (2001). Being committed: Affective, cognitive, and conative components of relationship commitment. *Personality and Social Psychology Bulletin, 27*, 1190-1203. doi:10.1177/0146167201279011

Baker, A. (2002). What makes an online relationship successful? Clues from couples who met in cyberspace. *Cyberpsychology & Behavior, 5*, 363-375. doi:10.1089/109493102760275617

Bagozzi, R. P., Wong, N., & Yi, Y. (1999). The role of culture and gender in the relationship between positive and negative affect. *Cognition and Emotion, 13*, 641-672. doi:10.1080/026999399379023

Blakemore, J. E., Lawton, C. A., & Vartanian, L. R. (2005). I can't wait to get married: Gender differences in drive to marry. *Sex Roles, 53*, 327-335. doi:10.1007/s11199-005-6756-1

Bond, T. G., & Fox, C. M. (2007). *Applying the Rasch model* (2nd ed.). New York, NY: Routledge.

Cox, C. L., Wexler, M. O., Rusbult, C. E., & Gaines, S. O., Jr. (1997). Prescriptive support and commitment processes in close relationships. *Social Psychology Quarterly, 60*, 79-90. doi:10.2307/2787013

Dion, K. L., & Dion, K. K. (1988). Romantic love: Individual and cultural perspectives. In R. J. Sternberg & M. L. Barnes (Eds.), *The psychology of love* (pp. 264-289). New Haven, CT: Yale University Press.

Edmonds, V. H. (1967). Marital conventionalization: Definition and measurement. *Journal of Marriage and the Family, 29*, 681-688. doi:10.2307/349220

Finkel, E. J., Eastwick, P. W., Karney, B. R., Reis, H. T., & Sprecher, S. (2012). Online dating: A critical analysis from the perspective of psychological science. *Psychological Science in the Public Interest, 13*, 3-66. doi:10.1177/1529100612436522

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.

Fowers, B. J., & Olson, D. H. (1993). ENRICH marital satisfaction scale: A brief research and clinical tool. *Journal of Family Psychology, 7*, 176-185. doi:10.1037/0893-3200.7.2.176

Hatfield, E., & Rapson, R. L. (2002). Passionate love and sexual desire: Cross-cultural and historical perspectives. In A. Vangelisti, H. T. Reis, & M. A. Fitzpatrick (Eds.), *Stability and change in relationships* (pp. 306-324). Cambridge, MA: Cambridge University Press.

Houran, J. (2009, June). *'Science friction': Compatibility profiling present and future.* Paper presented at the Internet Dating/Online Social Networking Industry Association Conference, Beverly Hills, CA.

Houran, J., Lange, R., Rentfrow, P. J., & Bruckner, K. H. (2004). Do online matchmaking tests work? An assessment of preliminary evidence for a publicized 'predictive model of marital success.'. *North American Journal of Psychology, 6*, 507-526.

Hsu, F. L. K. (1981). *Americans & Chinese: Passage to difference* (3rd ed.). Honolulu, HI: University Press of Hawaii.

Hsu, F. L. K. (1985). The self in cross-cultural perspective. In A. J. Marsella, G. DeVos, & F. L. K. Hsu (Eds.), *Culture and self: Asian and Western perspectives* (pp. 24-55). London, United Kingdom: Tavistock.

Lange, R., Houran, J., & Li, S. (2015). Dyadic relationship values in Chinese online daters: Love American style? *Sexuality & Culture, 19*, 190-215. doi:10.1007/s12119-014-9255-0

Lange, R., Irwin, H. J., & Houran, J. (2000). Top-down purification of Tobacyk's Revised Paranormal Belief Scale. *Personality and Individual Differences, 29*, 131-156. doi:10.1016/S0191-8869(99)00183-X

Lange, R., Thalbourne, M. A., Houran, J., & Lester, D. (2002). Depressive response sets due to gender and culture-based differential item functioning. *Personality and Individual Differences, 33*, 937-954. doi:10.1016/S0191-8869(01)00203-3

Lange, R., Thalbourne, M. A., Houran, J., & Storm, L. (2000). The Revised Transliminality Scale: Reliability and validity data from a Rasch top-down purification procedure. *Consciousness and Cognition, 9*, 591-617. doi:10.1006/ccog.2000.0472

Linacre, J. M. (2013). *Facets computer program for many-facet Rasch measurement, version 3.71.2*. Beaverton, OR: Winsteps.com.

Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review, 98*, 224-253. doi:10.1037/0033-295X.98.2.224

McKenna, K. Y. A., Green, A. S., & Gleason, M. E. J. (2002). Relationship formation on the Internet: What's the big attraction? *Journal of Social Issues, 58*, 9-31. doi:10.1111/1540-4560.00246

Rasch, G. (1960/1980). *Probabilistic models for some intelligence and attainment tests*. Chicago, IL: MESA Press.

Rusbult, C. E., & Buunk, B. P. (1993). Commitment processes in close relationships: An interdependence analysis. *Journal of Social and Personal Relationships, 10*, 175-204. doi:10.1177/026540759301000202

Scheier, M. F., & Carver, C. S. (1992). Effects of optimism on psychological and physical well-being: Theoretical overview and empirical update. *Cognitive Therapy and Research, 16*, 201-228. doi:10.1007/BF01173489

Sheppard, B. H., Hartwick, J., & Warshaw, P. R. (1988). The theory of reasoned action: A meta-analysis of past research with recommendations for modifications and future research. *Journal of Consumer Research, 15*, 325-343. doi:10.1086/209170

Sniehotta, F. F. (2009). An experimental test of the Theory of Planned Behavior. *Applied Psychology: Health and Well-Being, 1*, 257-270.

Sternberg, R. J. (1986). A triangular theory of love. *Psychological Review, 93*, 119-135. doi:10.1037/0033-295X.93.2.119

Sternberg, R. J. (1988). Triangulating love. In R. J. Sternberg & M. L. Barnes (Eds.), *The psychology of love* (pp. 119-138). New Haven, CT: Yale University Press.

Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin, 103*, 193-210. doi:10.1037/0033-2909.103.2.193

Tzeng, O. C. S. (1993). *Measurement of love and intimate relations: Theories, scales, and applications for love development, maintenance, and dissolution.* Westport, CT: Praeger.

PsychOpen
publishing psychology

Wang, Q. (2004). The emergence of cultural self-constructs: Autobiographical memory and self-description in European American and Chinese children. *Developmental Psychology, 40*, 3-15. doi:10.1037/0012-1649.40.1.3

Whitty, M., & Gavin, J. (2001). Age/sex/location: Uncovering the social cues in the development of online relationships. *Cyberpsychology & Behavior, 4*, 623-630. doi:10.1089/109493101753235223

Wright, B. D., & Masters, G. N. (1982). *Rating scale analysis*. Chicago, IL: MESA Press.