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**IS VIRTUAL MARRIAGE ACCEPTABLE?  
A PSYCHOLOGICAL STUDY INVESTIGATING  
THE ROLE OF AMBIGUITY TOLERANCE AND  
INTIMACY ILLUSION IN ONLINE DATING  
AMONG ADOLESCENTS AND EARLY ADULTS**

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*Abstract*

*Marriage is one of the most important topics in the education field since life in this world is structured by interaction among families and between families and other social institutions. Dissatisfaction and unsustainability of marriage have led the urgency of premarital education in various countries. The problem is that the spread of virtual reality has made marriage itself to become more complex and experience reinterpretation and reconfiguration, moreover with the emergence of new kind of marriage in the digital era, i.e. virtual marriage. Everybody who has observed, known, or even tried, certainly asks the question, "Could (or: should) I accept virtual marriage?". This study was aimed to investigate the role of tolerance of ambiguity and illusion of intimacy in online dating in predicting the acceptance of virtual marriage. There were 420 adolescents and young adults (212 males, 208 females;  $M_{age}=21.10$  years old,  $SD_{age}=1.459$  years; 338 students, 82 employees or entrepreneurs) in the Greater Jakarta, Indonesia, participated in this study. It was found that the acceptance was not predicted by the ambiguity tolerance, but by the illusion of intimacy in online dating. The psychometric issues, substantive discussion, and recommendation are presented at the end of this article. The trend of virtual marriage should not be allowed to roll away, by autopilot, without loaded by strategies in designing an online game as one of the pivotal educational technologies that needs to shape appropriate character and attitude for it.*

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## **Introduction**

The most current development of virtual marriage defines it as a marriage or contractual agreement that is conducted through internet medium in which the activities (wedding ceremony, kisses, etc.) are “played” and the instrumentalities as well as the artifacts (wedding dress, wedding ring, wedding hall, marriage certificate, marriage norms, wedding accessories, etc.) are present digitally in video games that involve visuals, sound, and social and emotional interactions dimensions between digital representatives of selves (avatars) (Freeman et al., 2015; Lo, 2009; Wu et al., 2007). “Virtual marriage” is synonymous with terms such as “cyber marriage”, “online wedding”, and “in-game marriage”. Considering the terms, virtual marriage contains the combination of “virtual game” and “(traditional) marriage” features. As an illustration, the components of goal-directed playfulness (from virtual game) as well as intimacy, commitment, and sexual interaction (from traditional marriage) could be present in the activity of virtual marriage (Freeman et al., 2015).

Virtual marriage becomes a prevalent phenomenon in the rapid development of technology. This symptom brings about crucial social transformation since the “traditional” norms are pulverized. As an example, virtual marriage enables someone to choose different gender representation from of the life’s actuality of him/herself, as well as it enables same-sex marriage without facing resistances which will be experienced in offline marriage in some certain geographic areas. For some people, these possibilities are considered aversive, even offensive, since they contradict the belief they hold firm all this time (Freeman et al., 2015). When virtual marriage tends to be or becomes a real or serious marriage, it has the potency to disrupt the existing marriage. Wu et al. (2007) found that “virtual affair” done by the legitimate spouse in offline world, which involves having virtual sex with someone else and even taking care of virtual babies as a result of virtual marriage, could lead to a divorce. The 3D virtual world nowadays, as it is known, could facilitate

virtual sex (Gilbert, Gonzalez, & Murphy, 2011; Hartoyo & Abraham, 2015) - one of the features of virtual marriage.

However, on the other hand, many people could get positive aspects from this phenomenon. As an illustration, many people might agree that virtual marriage enables people to learn from each other intimate relationships and learn how to mingle and negotiate with others who have different social identities; the point is “learn to survive” (Freeman et al., 2015). Virtual marriage can make us “achieve a good sense of presence and reality at a distance” (Knudsen, 2002). About it, some people have given a redefinition on virtual world and considered it as real as the offline world (Gilbert, Murphy, & Ávalos, 2011), at least equally true in affecting human development, as stated in the Co-construction Model (Cool, 2010; Subrahmanyam & Šmahel, 2010). The actors of virtual marriage enjoy their “life adventure”, which in one of the interpretations, defies conventional values from the offline world which are stereotypic, bureaucratic, and dominated by heterosexual norms (Wu et al., 2007). Virtual marriage could function as a refreshing option in the midst of the “difficulties” of conducting a marriage in offline world which has so many sociological and legal constraints (Wu et al., 2007).

Considering the controversies aforementioned, it is urgent to find the psychological predictors of virtual marriage acceptance. Acceptance is generally defined as “allowing, tolerating, embracing, experiencing, or making contact with a source of stimulation, particularly private experiences, that previously evoked escape, avoidance, or aggression” (Cordova, *as cited in* Hayes & Pankey, 2003, p. 4). What is meant by virtual marriage acceptance in this study is the attitudes of approving, enduring, and justifying the idea of virtual marriage with its advantages and limitations. The author proposed two predictors; they are ambiguity tolerance and the illusion of intimacy in online dating (*see* Figure 1).

Tolerance of ambiguity (or ambiguity tolerance) is cognitive and emotional tendencies of someone to prefer or idolize (meaning to approach and to process) ambiguous stimuli, i.e. information or thing that is multi-interpretation, complex, ambivalent, risky, unknown, and uncertain, and there is no effort to avoid (or not in a hurry to pass premature judgment or could feel comfortable with) stimuli that are not familiar/habitual, not congruent, and not clear (black-or-white), as well as inconsistent (Baj-Lindsey, 1998; Furnham & Marks, 2013; Herman et al., 2010; Rong & Grover, 2007). The stimuli are

considered as interesting as well as challenging things, not as the source of confusion and threat. Rong and Grover (2007) showed that there is a positive correlation between ambiguity tolerance with openness to new experiences, willingness to face change, to update knowledge, and to review their opinion. In counseling field, Harper (2008) found a positive correlation between ambiguity tolerance and counseling self-efficacy of a therapist. Zenasni, Besançon, and Lubart (2008) found that the higher someone's ambiguity tolerance, the higher the creativity is. Meanwhile, some people consider virtual marriage something that is creative, as seen in the following quotation:

"... cyber-marriage show the emergence of a new form of sociability made possible by Chinese users' creative adoption of the internet .... instead of homogenizing the world have, on the contrary, challenged the hegemony ...." (Chin, 2010, p. 11).

Davis (1995) said that interpersonal communication happens through telemedia (digital and interactive media, "new electronic media"; it includes in-game marriage) increases the level of communication ambiguity. According to Davis, without telemedia, a natural communication has been containing ambiguity; moreover, the ambiguity is multiplied if the activity is "layered" with media, in addition to the ambiguities intentionally created by the communicators.

Virtual marriage includes ambiguities even from its definition. "It could refer to online wedding ceremonies that proceeded to real-life, consummated unions, or to make-believe 'name only' marriages, which these days are generally the case" (Zhuhong, 2010). Unmistakably, there is an online marriage that is perceived as done only through online (without physical face-to-face meeting) and there is one that is assumed to be the beginning or initiation that leads to offline marriage life (Bailey & Chin, 2010). Virtual marriage contains such contradictions. For some people, it is "serious" or "just for fun", "fantasy" or "real", "objectification of self" or "subjectification".

Graham (2010) proposed an interesting analysis that the playfulness in virtual marriage paradoxically lies on its seriousness, like in sexual activities in in-game marriage. However, Graham added that in his seriousness, the game player has the awareness of the context of his/her action, that is gaming context. Such awareness shapes the meaning of the actions, although not everybody could understand this paradox. This is the ambiguity of virtual marriage. He

proposed a psychological analysis showing that an MMORPG player could “incorporate” such contradictions that the non-player could not. Not only from the definition and nature of the game, but virtual marriage’s ambiguity also lies on the ethical and moral aspects. As an illustration, Chareonwongsak (2002) mentioned that in digitization era like today, personal options and public policies are tinted with ambiguities in which the truth becomes “relative” and everybody shapes his on “truth”.

From the discussions above, it is clear that only those who are enduring ambiguities are the ones who could accept virtual marriage as one of the reasonable dimensions in life. Therefore, *the first hypothesis of this research is “The higher someone’s ambiguity tolerance, the higher his/her acceptance of virtual marriage is” (H1) (see Figure 1).*

The second predictor of the virtual marriage acceptance the author proposed is an illusion of intimacy in online dating. This variable was proposed primarily because both virtual marriage and online dating happen in a virtual environment. For instance, both online dating and virtual marriage have virtual chat room which only can be accessed by “partners”; further, the individuals in online dating and in-game marriage also have profile or avatar that represents their identities. In online dating, all users have access to find and browse other users who are potential to become partner based on certain criteria set before. In in-game (virtual) marriage, every user has access to find and browse other users potentially fit and meet certain criteria to get married online in the game based on information available in the user profile. Such behavior in a certain environment context could be generalized into similar environments.

The second reason for proposing this predictor is due to the fact that the online daters’ self-disclosure, especially those who have attachment anxiety, provides “illusion of greater intimacy” effect (Blackhart, Fitzpatrick, & Williamson, 2014, p. 114) with their partner. The interesting thing is that such anxiety turns up because people do not learn to go through “how to be alone”, and therefore “Other people are used, as what one might think of as part objects - spare parts to support a fragile self” (Price, 2011). The people who are untrained to deal with aloneness are in fact will feel loneliness and anxiety, and this condition will expand the illusion of intimacy. A bit different from Blackhart et al. (2014), Dröge and Voirol (2011) mentioned that the illusion of intimacy engulfs everybody involved in online dating, not only those who have

attachment anxiety. This illusion, further, results in disappointment and frustration, as shown in,

“the feelings of intimacy and togetherness that are developing online now become not only questionable but also potentially dangerous, because they tend to draw people into a world of false emotions and illusions .... People experience their passion as dangerous and illusionary simply because the emotions are initially detached from bodily co-presence, and the bodily experience and sexual desire cannot catch up with them in the face-to-face encounter” (Dröge & Voirol, 2011, p. 350-351).

However, the statement seems to simplify problems because even togetherness built online could result in genuine intimacy. Price (2011) proposed a key to understand the problem. According to Price, if an activity in a virtual environment is done to preserve or strengthen an existing relationship, the intimacy of real couples could be stronger. However, if we are interacting with a fully “stranger” (perfectly unknown people, without any degree of previous commitment) in an online dating, especially if it is not accompanied by offline meeting, false “illusion of companionship” or the illusion of intimacy might appear. This symptom looks alike—although not identical—illusion of intimacy experienced by someone in parasocial interaction with celebrities or political figures he/she admires (although never meets before) mediated by electronic media (Laken, 2009).

It is true that online dating is different from parasocial contexts since online dating happens two-ways, whereas the parasocial interaction only happens one-way. However, the similarity between online dating and parasocial interaction is there is persona or impression management that seldom is “uncovered”, let alone the online dating without being combined with offline dating.

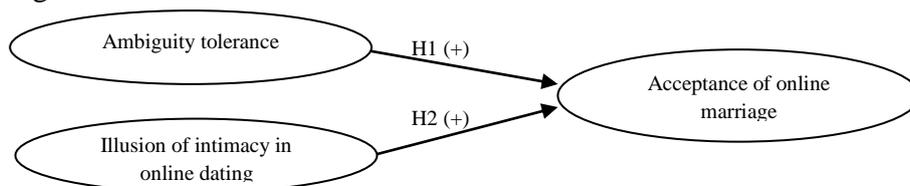


Figure 1. Hypothetical model predicting online marriage acceptance  
Note: (+) Positive prediction

In the review on John C. Bridges (2012) book, "*The Illusion of Intimacy: Problems in the World of Online Dating*", which is based on a large number of qualitative studies, Evans (2012) shows Bridges' concern that various kinds of psychological problems might appear in all stages of finding romantic partner through online medium. For instance, on an online dating site, someone could rapidly build intensive feeling to other based on ideal imaginations after looking at the profile or avatar of the counterpart, then hurriedly encourages feeling that he has found the right partner; even though they haven't met before. The most frequent thing that happens, according to Bridges (*as cited in* Evans, 2012), is the imaginations are "shattered" and then he feels oscillated, rejected, and depressive after the first offline meeting, especially if the meeting is long overdue and the "couple" have been "excessively" (even addictively) communicating only through the internet. The attributed "love" in the first online interaction (for example based on the matching process offered by online dating site) turns out to be regretted as "only an illusion", which is actually only "lust". Meanwhile, the couples in the offline world are busy negotiating one another on solving concrete life problems. They who rely on online dating sites are busy trying various sites which offer various "compatibility matching algorithms" with their own claimed strengths. In another word, online dating *per se* could not build love ("love" in the sense of synthesis passion, commitment, and intimacy; *see* Sternberg, 2007). To build love, online dating should interact with other factors.

It is not surprising that with such personal characteristic, those who experience the illusion of intimacy in online dating are more capable of accepting virtual marriage because it looks like an "oasis" which could answer or provide closure on their anxiety or "psychological hunger" on intimacy. Therefore, *the second hypothesis of this research is "The higher someone's illusion of intimacy in online dating, the higher his/her acceptance of virtual marriage is"* (H2) (*see* Figure 1).

## **Objective**

The purpose of this research is to find out the role of tolerance toward ambiguity and illusion of intimacy on online dating in predicting virtual marriage acceptance.

## Method

### *Participants*

The participants of this study were 420 students and employees or entrepreneurs aged 18-25 years old (212 males and 208 females; Mean of age = 21.10 years old, Standard deviation of age = 1.459 years; 338 students, 82 employees or entrepreneurs), recruited through convenience sampling technique in Greater Area of Jakarta (Jabodetabek area: Jakarta, Bogor, Depok, Tangerang, & Bekasi). As much as 70% of students taking part as samples in this research were recruited from Bina Nusantara University, Jakarta, Indonesia; 15% from Gunadarma University, Depok, West Java, Indonesia; and 15% from Indonesia Banking School, Jakarta, Indonesia. The 82 employee/entrepreneurs have various kinds of jobs, such as accountant, photographer, doctor, teacher, police, IT programmer, etc.

Jakarta is the capital of Indonesia with the highest penetration rate for internet use and online game, i.e. 65% of 88.1 million internet active users in Indonesia (Banyumurti, 2016; Maulana, 2015). Bogor, Depok, Tangerang, and Bekasi (*abbreviated as "Bodetabek"*) are the main buffer cities of Jakarta. The age range of 18-25 was chosen with the consideration that in this age someone starts to intensively intend to build romantic relationships (Meier & Allen, 2009). The range was chosen also due to the close continuity between adolescence and early adulthood periods, which could be seen as an age continuum with progression or accumulated experience in sexuality, romance, and family (Meier & Allen, 2009). Further, almost all in that age group were assumed to be fluent in using internet technology if being compared to the previous generation, and they are often being called as the first generation of digital natives (Helsper & Enyon, 2009). Since this study is closely related to romance world and virtual environment, the sample choice has a reasonable foundation.

### *Instruments*

To measure Virtual Marriage Acceptance, the author constructed by adapting and modifying the *Attitude toward Same-Sex Marriage Scale* (ASSMS) which was developed by Lannutti and Lachia (2007). Some considerations in employing this scale were, first, the context of the scale is the

same as the dependent variable context of this study, that is marriage; second, same-sex marriage is also a less conventional matter, as well as virtual marriage; and third, attitude and acceptance are two constructs that are adjacent (even they are coined to be “attitude of acceptance”, *see* Taylor, 2013). The scale in this present study was preceded with an introduction on “virtual marriage” term, as follow:

*“There are many online games which provide in-game marriage feature with other gamer or player. A character in the form of avatar played by a gamer gets married with other player’s character. This virtual marriage only happens in the game. The wedding party is depicted in the online game visualization as weddings in general. Further, they will get a marriage certificate, and even they can take care of children virtually in the game. What do you think about this phenomenon?”*

The response to this scale consisted of six options, as follows: Strongly Disagree (score of 1), Disagree (score of 2), Slightly Disagree (score of 3), Slightly Agree (score of 4), Agree (score of 5), and Strongly Agree (score of 6). The author developed 23 items, with the examples of statement as follows: “Virtual marriage should be allowed the same rights as offline marriage”, “Virtual marriage deserve the same protections as offline marriage”, “I am against virtual marriage” (unfavorable item, reversely scored), “I oppose any law that would make it impossible for virtual marriage to be held”, “It is morally wrong for virtual marriage to do”, “Allowing virtual marriage will change society for the worse” (unfavorable item), “Allowing virtual marriage would improve society”, “I am disgusted by the idea of virtual marriage”, and “If invited, I would attend a virtual marriage ceremony”. The validity and reliability testing on the Scale of Virtual Marriage Acceptance showed that Cronbach’s Alpha = .94 (this scale is reliable), with corrected item-total correlations is around .33 to .84 by eliminating one item. Therefore, the scale consisted of 22 items that were valid and reliable.

To measure the Tolerance of Ambiguity, the author adapted *The Tolerance of Ambiguity Scale* developed previously by Herman et al. (2010). The scale consisted of four dimensions and twelve statements describing the tolerance of ambiguity. The four dimensions in the scale are (1) Valuing diverse others, (2) Change, (3) Challenging perspectives, and (4) Unfamiliarity. The response to this scale consisted of six options, as follows: Strongly

Disagree (score of 1), Disagree (score of 2), Slightly Disagree (score of 3), Slightly Agree (score of 4), Agree (score of 5), and Strongly Agree (score of 6). The example of items on Valuing others dimension: "I can enjoy being with people whose values are very different from mine", "I can be comfortable with nearly all kinds of people". The example of items on Change dimension: "A good job is one where what is to be done and how it is to be done are always clear" (unfavorable item, reversely scored), "The sooner we all acquire similar values and ideals the better" (unfavorable item, reversely scored). The example of items of Challenging perspectives dimension: "If given a choice, I will usually visit a foreign country rather than vacation at home", "A good teacher is one who makes you wonder about your way of looking at things". The example of items on Unfamiliarity dimension: "I like to surround myself with things that are familiar to me" (unfavorable item, reversely scored), "I like parties where I know most of the people more than ones where all or most of the people are complete strangers" (unfavorable item). The validity and reliability testing on the Tolerance of ambiguity showed that Cronbach's Alpha = .75 (this scale is reliable), with corrected item-total correlations is around .27 to .65 by eliminating three item. Therefore, the scale consisted of 12 items that were valid and reliable.

To measure the illusion of intimacy in online dating, the author constructed the measurement instrument based on research results of Bridges (2012) and description of the illusion of intimacy from Fletcher and Kerr (2010) and added several items based on Bridges' research (2012). The author composed 16 statement items. The scale was preceded by an introduction, as follow: "*I believe if being compared with offline dating couples (dating in offline world, not virtual/internet world), so online dating couples ....*" Meanwhile, the example of the statement is as follow: "Online dating couple will have more personal remembrance about one another for a long time", "Online dating couples have more common belief and attitude", "Online dating couples like the quality of the partner more", "Online dating couples have better mutual care", "Online dating couples have better mutual agreement", "Online dating couples like the way the partner solves problem better", and "Online dating couples forgive one another's mistake easier".

The response to this scale consisted of six options, as follows: Strongly Disagree (score of 1), Disagree (score of 2), Slightly Disagree (score of 3), Slightly Agree (score of 4), Agree (score of 5), and Strongly Agree (score of 6).

The validity and reliability testing on the Illusion of Intimacy in Online Dating showed that Cronbach's Alpha = .94 (this scale is reliable), with corrected item-total correlations is around .41 to .78 without eliminating any item. Therefore, the scale consisted of 16 items that were valid and reliable.

#### *Procedure and Design*

The design of this study was correlational predictive which implemented multiple linear regression analysis as the data analysis technique. The predictors (independent variables) in this study are ambiguity tolerance and the illusion of intimacy in online dating. The criterion (dependent variable) in this study is the acceptance of virtual marriage.

The author distributed a questionnaire which consisted of three psychological scales to measure the predictor and criterion variables in Bahasa Indonesia. Before conducting the field research, the author implemented reliability and validity testing on the measurement instruments. In this study, a psychological scale is reliable if it has internal consistency index, Cronbach's Alpha, more than .60. The item validity testing was conducted by correlating the item score with the total score of the corresponding scale, with criteria corrected item-total correlations more than .25 .

#### **Results and Discussion**

As many as 321 (76.43%) participants claimed to have played the online game, and the rest 99 (23.57%) participants claim never played it. Of the 321 participants, the length of experience in playing online game: 86 (26.79%) less than one year (1-11 months), 80 (24.92%) one year, 53 (16.51%) three to five years, 28 (8.72%) two years, 25 (7.79%) six to eight years, 18 (5.61%) nine to twelve years; and the rest, 31 (9.66%) participants provided varied answers ("depends on needs", "every day", "from junior high school to now", "twice a week @ 6 hours", and the like, or above 12 years). From 321 participants, 35 (10.90%) participants claimed to ever get involved in a virtual marriage in the certain online game.

From those 35 participants, they were asked about both positive and negative sides of virtual marriage. Every participant could express one or more ideas. The author categorized the responses into three perceptual groups, i.e. positive, negative and neutral. The following are the participants' positive

perceptions on virtual marriage: (1) If meeting offline, the online couples have the potential to be offline couples as well; (2) The first step to know deeper, understand character, share attention, share with opposite sex; (3) Making online game more fun and exciting; (4) Strengthening self-character; (5) Not feeling alone and there is someone caring (more feeling like close friends), although the counterpart is not physically near; (6) “Fun” and learn to understand one another; (7) Improving the spirit in offline life; (8) Able to love someone without looking at the physical appearance, but loving “with heart”; (9) Passing the free time; (10) Finding relation, getting friend from outside the town, even internationally. It is a media to learn cross-cultural understanding. If move to different city, have a friend already; (11) More understanding and helping one another; (12) Feel the longing more; (13) Feel the partner’s sacrifice and struggle better; (14) Could change the self-image; (15) There is no rules and restrictions, “nothing to lose”; (16) There is no agreement that influences the offline life; and (17) Make it easier for those who have difficulties finding partner in offline world.

The following are the participants’ negative perceptions on virtual marriage: (1) Could be scam, there is mistrust issue; (2) Being worried if the online partner is not like the expectation; (3) If already have offline partner, it could make someone forgets and could create disharmony with the offline partner; (4) Withdrawing or being apart from the real world; (5) Not ethical if it is integrated into personal life; (5) Only to fulfil desire or lust; this objective is not in accordance with the real intention of marriage, that is building prosperous and peaceful family; (6) Antisocial because cannot interact with offline partner in offline world; (7) The danger is much bigger than offline marriage; (8) Not knowing the partner’s physical appearance; (9) Wasting time; (10) Could be seen as an instrument to get away from reality for those who cannot make relationship in offline world; (11) Could be played by player who is not in accordance with the age portion (such as children); (12) Not knowing whether the partner is male or female; (13) No physical contacts, so it might do harm to others; (14) The marriage is indefensible; (15) Could not unify online and offline lives; (16) Could make someone feel lazy to find partner in offline world; and (16) Like a small infidelity.

The following are the participants’ neutral perceptions on virtual marriage: (1) Virtual marriage is only the requirements to get certain items in the game, raising the level in game; (2) Normal, as long as not being maniac;

(3) It is an option, it depends on each individual’s awareness and belief; (4) “Is it that easy to find someone ‘fit’ for partner?”; (5) A unique thing; and (6) Changing love life.

The multiple linear regression assumption tests using IBM SPSS for Windows showed that the data distribution is normal (*see* Figure 2), free of multicollinearity among independent variables ( $VIF < 10$ ,  $Tolerance > 0.1$ ; *see* Table 1), and free of heteroscedasticity (no pattern on the scatterplot and the data are distributed above and below 0; *see* Figure 3).

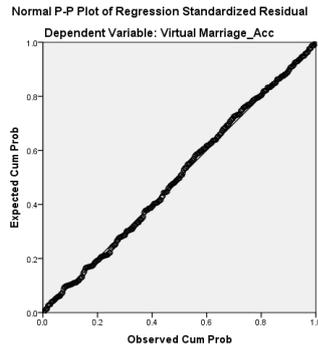


Figure 2. Normality test result (Normal P-P Plot of Regression Standardized Residual)  
 Note: Virtual Marriage\_Acc = The acceptance of virtual marriage

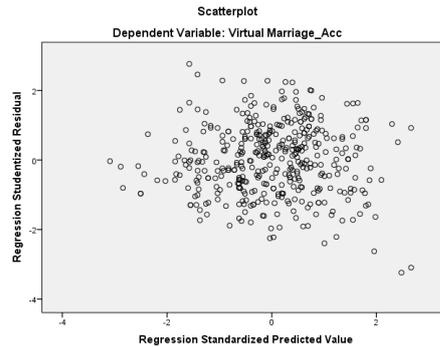


Figure 3. Heteroscedasticity test result (Scatterplot)  
 Note: Virtual Marriage\_Acc = The acceptance of virtual marriage

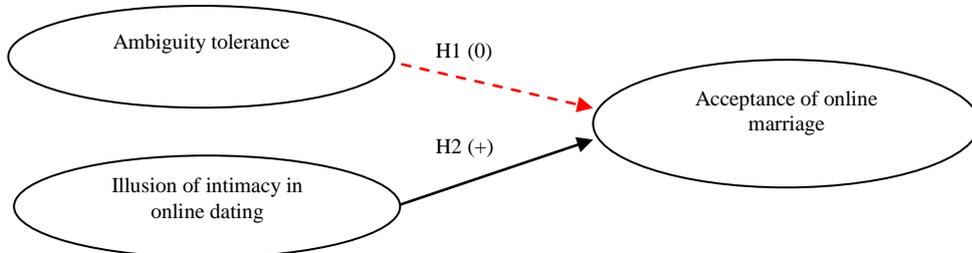


Figure 4. Research result: Regression model predicting online marriage acceptance ( $n=420$ )

Note: (0) No prediction; (+) Positive prediction

H1 First hypothesis not supported; H2 Second hypothesis supported by data

The multiple linear regression analysis showed that simultaneously both predictors (illusion of intimacy and ambiguity tolerance) can predict the acceptance of virtual marriage,  $F(2, 419)=47.379$ ,  $p=.000$ ,  $p<.01$ , with effect size,  $R=0.185$  or 18.5%. However, when being investigated in detail, ambiguity tolerance was found can not predict by itself the acceptance ( $\beta=-0.059$ ,  $p=.187$ ,  $p>.05$ ), thus H1 was not supported by empirical data (see Figure 4 and Table 1). The illusion of intimacy in online dating was found to be able to predict by itself the acceptance ( $\beta=0.418$ ,  $p=.000$ ,  $p<.01$ ) in a positive way, thus H2 was supported by empirical data (see Figure 4 and Table 1). The Beta values ( $\beta$ ) are standardized coefficients estimating the increased score of criterion variable (online marriage acceptance), in standard deviation unit, in correspondence with one standard deviation increment of the predictor variables scores.

Based on the participants' responses, *there are paradoxes in their perception of virtual marriage*; for example, (1) from time aspect; there are some who consider passing the time, but for the others it is a waste of time; (2) from the inexistence of face-to-face encounters aspect; some think it is a loss, the others consider it is the proof of love and sincere loyalty (believe without seeing); (3) from the inexistence of bond aspect; there are some consider as the preparation of the real marriage in the future, there are others who consider it defies the real intention of marriage; (4) from the impact on overall life aspect; for some, it motivates and supports the search and even development of self-character in general, for others, it is only fake and is an escape from the offline world. These paradoxes show that the ambiguity elements really exist in virtual marriage.

Table 1. Multiple Linear Regression Predicting the Acceptance of Virtual Marriage ( $n=420$ )

Predictor	B	SE B	$\beta$	t	p	Tolerance	VIF
Ambiguity tolerance	-0.183	0.138	-0.059	-1.320	.18	0.982	1.019
Illusion of intimacy in online dating	0.553	0.059	0.418	9.377	.000	0.982	1.019

Note: SE = standard error

However, the result of this study showed that *the ambiguity tolerance can not predict the acceptance of virtual marriage*. The author proposed two explanations on the finding of this present study. First, ambiguity tolerance is a

variable that is contextual in nature. In explaining the non-significance of global correlation between ambiguity tolerance and attitudinal conservatism, Durrheim (1998) by using context theory explains that if each of the variables is “broken down” into dimensions based on its content, a correlation could be found between both variables on its similar contents and context domains (such as, similarity in politics or similarity on religious field). The implication of such discussion, according to Durrheim, is that ambiguity tolerance cannot be regarded as global personality trait because it depends on its context, our tolerance level on ambiguity could vary both on the direction (positive/tolerant or negative/intolerant), as well as strength (strong or weak).

However, in this present study, ambiguity tolerance, as seen in the measurement scale responded by the participants, is assumed as having a unidimensional factor structure covering diverse enough situational domains, such as: interpersonal experience (“I can enjoy being with people whose values are very different from mine”), job/professional (“A good job is one where what is to be done and how it is to be done are always clear”), education/learning (“A good teacher is one who makes you wonder about your way of looking at things”); although some of the items are related to cross-cultural experience. Moreover, the predicted variable (criterion) lies on different domain with the predictor’s domain, that is marriage domain, in which exist subdomain in law and/or human right (“Virtual marriage should be allowed the same rights as offline marriage”) and subdomain in society area (“Allowing virtual marriage will change society for the worse”). It is not surprising though if the mix of domains results in the nonexistence of correlation-predictive between ambiguity tolerance and acceptance of virtual marriage.

The manifestation of attitude and behavior of ambiguity tolerance could not be generalized traversing various attitudinal objects. Bors, Gruman, and Shukla (2010) in their psychometric on ambiguity tolerance measurement also find that “the one-factor solution was clearly the worst fit” (p. 242). Their investigation presumably could be applied in this present study which employed an instrument from Herman et al. (2010). Endres, Camp, and Milner (2015) through their experiment research even found that ambiguity tolerance is not a stable construct but malleable in someone according to the situation faced by the person.

Therefore, the next researcher is suggested to (1) re-examine the psychometric properties in ambiguity tolerance psychological scale proposed by Herman et al. (2010) based on classification of dimension/domain of life's situation; and (2) re-examine the predictive relationship between ambiguity tolerance and acceptance of virtual marriage by specifying the items in ambiguity tolerance scale in a context only, i.e. the context of marriage or virtual marriage.

The second reason that would explain why there is no predictive relationship related to ambiguity is that during the hypothesis development, the author did not anticipate the direction of ambiguity in influencing the acceptance of the object, value or concept (in this research: virtual marriage). In general, the existing studies show that ambiguity connotes negative (as mentioned in the Introduction section) and correlates negatively with acceptance. The word "tolerance" in "tolerance of ambiguity" shows that ambiguity is something that is aversive since we only tolerate things we do not like. According to Cambridge Advanced Learner's Dictionary (2005), tolerance means "the ability to bear something unpleasant or annoying, or to continue existing despite disadvantageous conditions". Psychologically, in general people consider ambiguity bad for them because it causes uncertainty, dissonance, difficulties in control, and hindrance to self-development, even temptation to hide or disguise the real meanings (Abraham, Utami, & Faza, 2014; Mitchell & Pilkington, 2000; Norton, Frost, & Ariely, 2007). However, ambiguity also has good influence or impact. Ambiguity is indeed sometimes could not be avoided in this life reality, yet it has the potency to become a huge booster for us to offer a various fresh interpretation, comparison form various angles, and reflection on choices we took, and therefore we develop our existential meaning (Mitchell & Pilikington, 2000).

In interpersonal attraction, a field that is close to activities in online dating and virtual marriage, Norton, Frost, and Ariely (2007) through their empirical research found that ambiguity has its attractiveness, and it could bridge two contradictive statements circulating in everyday life: "Familiarity breeds contempt" and, as the counterpart, "Familiarity increases liking". It is true that we will like a person who is similar to us, but the reality shows that frequently we encounter someone who is different with us. In such condition, the more we could get information or knowledge about the person, the lower our positive imaginative portrayal to that person is, and this will reduce our

liking. Ambiguity has its attractiveness, especially in initial meetings with initial mates, since it provides an illusion or cognitive bias that the person is similar to us in attitude, personality, and even behavior. This maintains and even increases our expectation to the person. When the person adds only one more thing that is similar with us, we get more “confirmation bias” in our positive impression formation and therefore we will like the person more. Norton et al. (2007) give further explanation on unambiguity which confirms dislike feeling through dissimilarity mediation:

“Because individuals expect to find similarity, encountering evidence of dissimilarity is unexpected and therefore impactful; this initial dissimilarity then causes subsequent information to be interpreted as further evidence of dissimilarity. In short, we propose the existence of dissimilarity cascades: One instance of dissimilarity causes subsequent information to be interpreted as further evidence of dissimilarity, leading to relatively greater perceptions of dissimilarity over the course of impression formation” (Norton et al., 2007, p. 98).

The explanation on the role of (un)ambiguity above is supported by Gaver, Beaver, and Benford (2003). While Norton et al. explains that our increased attractiveness to others is as the result of ambiguity, Gaver et al. mentioned that our increased attractiveness to technology (online dating and virtual marriage world could be considered as examples) is as a result of ambiguity. In human-computer interaction, they found a positive correlation between ambiguity of media or technological system with personal engagement to it. In their scientific review, there are three paths in which ambiguity shows its influence. The first, ambiguity of information in an interactive environment, such as “fuzzy avatars that hint at locations without specifying them” (Gaver et al., 2003, p. 236) in *Bystander* reality game, encourages the users to integrate all information they have (about physical and social environments) to fill the information gap to continue playing the game. The second, the ambiguity of context stimulates users to do rethinking, reinterpretation, redefining meaning, and reconceptualization to appropriate technology based on their needs context. This is based on the observation conducted by Gaver et al. that users do not like to be dictated about what the technology at hand will become. The third, ambiguity of relationship leads to self-reflection, questions our attitude and judgment based on action-reaction happens between users and technology. In

this case, technology is positioned as “psychological mirrors” (Gaver et al., 2003, p. 239) in which users could do experiments on their identity.

Based on the two potential directions of ambiguity, positive and negative, on the acceptance of virtual marriage, it is not surprising that intuitively we imagine the positive and negative scores nullify one another so the average is zero or the inexistence of any predictive correlation. Therefore, the next researchers are expected to (1) also know deeper the frequency, duration, and intensity of someone using online dating sites as well as the pattern of his activities in the sites. The data is very important to be used as variables mediating and/or moderating predictive relationship between ambiguity tolerance and acceptance of virtual marriage; (2) investigate incisively the conditions or contexts wherein technological ambiguity results in frustration and vacuity, and the situations wherein the ambiguity has effects on enthusiasm, excitement, and abundance of meanings, and then measure them separately to calculate their influences on the acceptance of virtual marriage.

This research found that *illusion of intimacy in online dating can predict the acceptance of virtual marriage in a positive way*. As mentioned previously, the illusion of intimacy in online dating is in fact a product of communication of two parties, who both wear “mask” or “impression fortress”. According to Bridges (2012), an intensive and extensive researcher in online dating, every individual involved in the online relationship has a tendency to manipulate everything shown to others to make it more interesting and having more attractiveness in others’ perspectives. The manipulation could happen in every aspect that could be shown, either synchronously or asynchronously, covering avatar performance, conversation experienced, biodata, and many others.

Different with offline communication, someone will experience cognitive overload if in every second he/she has to instantly decide carefully word by word that is appropriate to be said to show certain self-impression when interacting face-to-face with others. The easiness to access information makes someone also experience the illusion of intimacy. Someone could feel close or intimate with others because he/she already has and knows many information related to the person, especially if from the beginning he/she is managed by pre-conception on similarity between him/herself and the counterpart in online dating situation; even though what he/she has known

might be limited to the online dimension, and he/she would never know the correspondence of the “online truth” in offline world.

There are three ways how such illusion could happen on online dating sites (Finkel et al., 2012). First, in the access dimension, an online dater thinks he is facing the real others, equipped with the biopsychosocial dimensions, eventhough what he really faces is a body layered by screens, and the things expressed verbally or nonverbally in online dating site’s interactions are only part (not whole, even only a small part) of someone’s soul. Actually, in fact, we will not be able to comprehensively conclude our compatibility with the potential partner if we do not experience encounters with the whole body, the three-dimension body, along with all phenomenological and existential experiences brought with the body. Furthermore, online daters might think and treat their counterpart as an object (not as subject) because of the availability of lots of alternative counterparts in the online dating sites. Second, in the communication dimension, without a sustainable reality test, online daters might think that the person encountered is the actual people. In fact, the actual person is an aggregate (or gestalt) between online and offline dimensions of someone, not only the online dimension. Third, in the matching process dimension, online daters might consider that the algorithm used by online dating sites is a smartest device or method which “beats the conventional ways” to identify compatibilities between him and the potential partner. In fact, the compatibilities offered by online dating sites are not the most important thing in a relationship’s stability or satisfaction; however, the most important thing is:

“how the two partners will grow and mature over time, what life circumstances they will confront and coping responses they will exhibit in the future, and how the dynamics of their interaction will ultimately promote or undermine romantic attraction and long-term relationship well-being” (Finkel et al., 2012, p. 4).

The algorithm which uses biology, psychology, sociology or spirituality aspects will not be able - and indeed impossible - to reach the data because when the algorithm calculation is conducted, the data does not exist yet.

The first path above is very closely related to the focus of this research, that is an illusion of intimacy. How does the illusion of intimacy facilitate someone’s psyche to accept positively virtual marriage? As previously explained, there are some similar features between online dating and virtual

marriage. The illusion in online dating finds its convergence with the nature of illusion from virtual marriage; or in another word, the learning process has occurred, to be more specific: transfer of experience from online dating to virtual marriage context. In the access dimension, Lo (2009) clearly shows illusion dimension from virtual marriage:

“Online romance perpetuates the illusion of soul or mind because people fall in love in cyberspace not for each other’s bodies or physical attractiveness but for their intangible souls or inner feelings .... Love relations in cyberspace create a fantasy” (Lo, 2009, p. 394).

Although it is not the focus of illusion description in this research, from communication aspect, Lo (2009) also showed that objectification of the counterpart - as identified by Finkel et al. (2012) above—also happens in virtual marriage. Virtual marriage has the potency to nurture a patriarchal culture in which polygamy (one “husband” with many “wives”, or, on the contrary, one “wife” with many “husbands”) could be done lightly. In virtual marriage, someone could marry as many partners as possible without any limit, anytime, without necessarily playing loyalty and commitment with the partner; although for some people who consider this from a different side, it is a “liberation”. In online dating and virtual marriage, someone could “mix” and “build” closeness feeling with his online partner based on his needs (the feeling of intimacy and closeness will be more salient when the needs of relationship are getting higher) while being interspersed with the awareness that it is a relationship with far psychological distance or high construal level.

### **Conclusions**

This research concludes that the illusion of intimacy in online dating could predict the acceptance of virtual marriage. In this case, virtual marriage could be viewed as the “sustainable experience” from online dating. The tolerance of ambiguity could not predict the acceptance. The author attributed the inexistence of predictive potency on the psychometric problem in the measurement instrument and the flexibility or divergence of the relationship direction of ambiguity toward the acceptance. Therefore, the author suggests to

reconstruct the measurement instrument of the tolerance of ambiguity based on his suggestions in Discussion part and to reinvestigate the correlation-predictive with the acceptance.

This study was not intended to provide final evaluation with moralistic nuance on whether we should encourage or discourage the existence of online dating and virtual marriage. The significant contribution of this study was more on providing scientific perspective to the readers on the phenomena which might need to be anticipated in the future, in which virtual reality has penetrated the social institution which is known as sacred and has an assured function (i.e. procreation), that is marriage. This research provides the first insight, which if online dating has started to bloom nowadays, we need to put into consideration its implication on virtual marriage in the future together with all the consequences and excesses. At least, according to this research (based on the coefficient of determination from regression analysis), 18.5% of the variance of the acceptance of virtual marriage got its contribution from the significance of the investigated predictor.

Since virtual marriage is a phenomenon that is very likely will draw us to make a redefinition of marriage, we need to have reflection on how we will build love and bind relationship one another, as well as to rethink our own psyche in the border (or intersection) of online and offline world; therefore, this study is important to be considered seriously when an individual projects an attitude and behavior toward virtual marriage and when the institutions who make public policies formulate the regulations for cyber world among the society.

Since online game has benefits in education field and its success also is determined by psychological factors (Abraham & Sharron, 2015), online game designers and education field stakeholders could also use the result of this study to optimize the positive effect of online game in educating how to build an appropriate attitude on virtual marriage, especially for adolescents and young adults.

The next researchers are expected to include spirituality/religiosity factor in building a theoretical model on the acceptance of virtual marriage in the context of societies that are known religious, like Indonesia. The study conducted by Piela (2011) could become a stimulant for the effort. Furthermore, because this research has not put value on levels of acceptance of virtual marriage based on various psychodemographic attributes, a multilevel

research is suggested. It might be more insightful to see how the interaction between variables player vs. non-player, expert vs. novice player, online vs. non-online daters, etc. has effect in predicting someone's acceptance of virtual marriage.

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