**Online Supplementary Materials**

**Descriptive Statistics**

 **Changes in Relationship Categorization over Time.** To provide a more thorough examination of how relationships change over time, we estimated the probability that a participant who described their relationship as one particular type at one interview (*t*) will describe it in the same way or as another type of relationship at the next interview (*t* + 1). Among participants who described a relationship differently at the next interview, most appeared to be moving along a continuum from just friends to dating exclusively (see supplemental Table 1). For example, among the relationships characterized as just friends at one interview, 32% were characterized as dating casually and 28% as dating exclusively at the next interview. Among the relationships described as dating casually in one interview, 45% described their relationship as dating exclusively at the next interview. Dating exclusively was the most stable category, with 82% of such relationships characterized in the same way from one interview to the next. Sizable proportions of just friends (40%) and dating casually relationships (41%) were described the same at the following interview.

Some participants, however, characterized their relationships in ways that moved in the other direction. For example, 12% of dating casually and 3% of dating exclusively relationships were described as just friends at the next interview. It is worth noting that although participants who transitioned to “just friends” were no longer dating, this does not necessarily indicate they broke up. In fact, their sexual relationship persisted to some degree because participants only reported sexual partners since the last interview. Additionally, 26% of engaged relationships were described as dating exclusively at the next interview.

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| Supplemental Table 1*Relationship categorizations between consecutive interviews* |
|  | **Categorization at Time *t* + 1** |
|  | **Just** **friends** | **Dating casually** | **Dating exclusively** | **Engaged** |
| **Categorization at Time *t*** |  |  |  |  |
|  |  |  |  |  |
| Just Friends | 10 (40%) | 8 (32%) | 7 (28%) | 0 (0%) |
| Dating Casually | 7 (12%) | 24 (41%) | 26 (45%) | 1 (2% |
| Dating Exclusively | 10 (3%) | 25 (8%) | 244 (82%) | 19 (6%) |
| Engaged | 0 (0%) | 1 (2%) | 14 (26%) | 38 (72%) |
|  |  |  |  |  |
| *Note.* Transition Probabilities (%) in Characterization of Relationship Categorization in parentheses.  |

 **Relationship Qualities by Relationship Categorization.** Supplemental table 2 presents means for various relationship qualities by relationship categorization. Consistent with Hypothesis 1, most qualities were significantly higher in magnitude as relationship categorization increased from less to more serious. For example, level of commitment increased from 3.84 for those participants who were dating casually to 6.05 for those dating exclusively. Significant increases by relationship categorization were also observed for satisfaction and investments and predicted decreases for alternatives.

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| Supplemental Table 2*Means (Standard Deviations) of Relationship Qualities by Relationship Categorization* |
| **Relationship Categorization** |
| **Relationship Qualities** | **Just Friends** | **Dating Casually** | **Dating Exclusively** | **Engaged** |
| Commitment | 3.01(2.11) | 3.81\*\*(1.98) | 5.94\*\*\*(1.57) | 7.11\*\*\*(1.00) |
|  |  |  |  |  |
| Satisfaction | 3.97(2.20) | 4.35(1.79) | 5.84\*\*\*(1.49) | 6.42\*(1.44) |
|  |  |  |  |  |
| Quality of Alternatives | 6.39(1.44) | 5.56\*\*\*(1.39) | 4.79\*\*\*(1.44) | 4.16\*(1.71) |
|  |  |  |  |  |
| Investment Size | 2.40(2.07) | 3.31\*\*(1.92) | 4.97\*\*\*(1.39) | 6.12\*\*\*(0.98) |
| †<.10; \*<.05; \*\*<.01; \*\*\*<.001 indicates it is significantly different from the previous category estimate. |

**Additional Analyses**

**Other Temporal Alternatives.** At the request of a reviewer, we conducted additional models to rule out other temporal alternatives; namely, that relationship categorization predicts changes in relationship qualities. To test this, we conducted multilevel models in which relationship categorization at one interview (time *t*) predicted satisfaction, alternatives, investments, and commitment at the next interview (time *t* + 1). In each model, we controlled for the outcome at time *t*, creating a residualized change score. In these models, being in a more serious relationship at one time (i.e., dating exclusively/engaged) was associated with a decrease in satisfaction ($b=-.52, p=.006$) and an increase in investments ($b=.30, p=.040$), but was unassociated with change in either alternatives ($b=-.22, p=.203$) or commitment ($b=-.20, p=.265$). Given the lack of a priori hypotheses, clear theoretical implications, and the inconsistent nature of these models, we do not interpret these results further.

**Additional Covariates.** At the request of reviewers, we conducted analyses testing Hypothesis 2 while controlling for several covariates and their interactions with the main predictors. These included age and gender in addition to relationship duration.

***Age.*** We conducted identical analyses to those reported in Table 5, controlling for participant age. As shown in Supplemental Table 3, the results regarding our main hypotheses are unchanged compared to those presented in the main manuscript. We next examined whether age moderates the associations between the investment model and transitions in relationship. Because of the exploratory nature of these results, we advance no specific directional hypotheses. In this analysis, we built on Model 2 from supplemental Table 3, adding the two-way interactions between age and the investment model variables. Age did not moderate the effect of any variables on regression ($p’s > .110$). However, age did moderate the effects of satisfaction ($OR=0.144, 95\% CI \left[0.02, 1.01\right], p=.052$), investments ($OR=0.04, 95\% CI \left[0.003, 0.46\right], p=.010$), and commitment ($OR=11.43, 95\% CI \left[1.19 109.86\right], p=.025$), but not alternatives ($OR=0.65 95\% CI \left[0.07, 6.30\right] p=.707$). We conducted simple slopes for the two age categories (18-24 and 25-30 years old). These revealed that the effect of commitment was significant regardless of age group, although it was stronger among 25-30 year olds ($OR=90.69, p=.007$) than among 18-24 year olds ($OR=10.93, p=.009$). This pattern was reversed for satisfaction and investments, which negatively predicted progression among 25-30 year olds ($OR=0.13, p=.041$, $OR=0.13, p=.053$, respectively). Among 18-24 year olds, investments positively predicted progression ($OR=3.34, p=.031$) but satisfaction did not ($OR=0.92, p.847$). Given the lack of clear theoretical predictions, the inconsistent nature of the interaction patterns, and negative effects of satisfaction and investments among older individuals that runs counter to the zero-order correlations, we urge extreme caution in interpreting these interactions.

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| Supplemental Table 3*Investment Model (Time t) Predicting Transitions in Relationship Categorization at the Following Interview (Time t + 1), Controlling for Age.* |
| **Relationship Qualities** | **Likelihood of Transitioning to Dating Exclusively / Engaged / Married *among* Just Friends / Dating Casually** | **Likelihood of Transitioning to Just Friends/ Dating Casually *among* Dating Exclusively / Engaged/Married** |
|  |  |  |
|  | **Model 1** |
|  | **OR** | **CI** | **OR** | **CI** |
| Satisfaction | **1.68\*** | **1.02, 2.76** | **0.60\*** | **0.39, 0.92** |
| Quality of Alternatives | **0.57** | **0.31, 1.05** | **1.92\*\*\*** | **1.30, 2.85** |
| Investment Size | **3.78** | **1.39, 10.24** | **0.33** | **0.21, 0.50** |
|  |  |  |  |  |
|  | **Model 2** |
|  | **OR** | **CI** | **OR** | **CI** |
| Satisfaction | 0.95 | 0.50, 1.80 | **0.50\*\*** | **0.31, 0.80** |
| Quality of Alternatives | 1.04 | 0.51, 2.12 | **1.46†** | **0.97, 2.19** |
| Investment Size | **2.22†** | **0.91, 5.40** | **0.55\*** | **0.34, 0.88** |
| Commitment | **7.67\*** | **1.53, 38.45** | 0.55 | 0.45, 1.12 |
|  |
| †<.10;\**p*<.05; \*\**p*<.01; \*\*\**p*<.001*Note.* Significant and marginally significant findings in bold. All models control for duration of sexual relationship (defined as days between first and most recent sex, log transformed) |

***Gender.*** We next conducted identical analyses to those reported in Table 5, controlling for participant gender. As shown in Supplemental Table 4, the results regarding our main hypotheses are largely unchanged compared to those presented in the main manuscript. The only notable difference was that alternatives was reduced from a marginal to a nonsignificant predictor of progression and from a significant to marginal predictor of regression. We next examined whether gender moderates the associations between the investment model and transitions in relationship. Because of the exploratory nature of these results, we advance no specific directional hypotheses. In this analysis, we built on Model 2 from supplemental Table 4, adding the two-way interactions between gender and the investment model variables. Gender did not moderate the effect of any variables on either progression ($p’s > .147$) or regression ($p^{'}s>.573$).

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| Table 4*Investment Model (Time t) Predicting Transitions in Relationship Categorization at the Following Interview (Time t + 1), Controlling for Gender.* |
| **Relationship Qualities** | **Likelihood of Transitioning to Dating Exclusively / Engaged / Married *among* Just Friends / Dating Casually** | **Likelihood of Transitioning to Just Friends/ Dating Casually *among* Dating Exclusively / Engaged/Married** |
|  |  |  |
|  | **Model 1** |
|  | **OR** | **CI** | **OR** | **CI** |
| Satisfaction | **2.52\*\*** | **1.32, 4.82** | **0.40\*\*\*** | **0.25, 0.62** |
| Quality of Alternatives | 0.63 | 0.33, 1.19 | **1.46†** | **0.95, 2.24** |
| Investment Size | **2.91\*\*** | **1.38, 6.13** | **0.48\*\*** | **0.30, 0.78** |
|  |  |  |  |  |
|  | **Model 2** |
|  | **OR** | **CI** | **OR** | **CI** |
| Satisfaction | 1.01 | 0.53, 1.92 | **0.51\*\*** | **0.31, 0.83** |
| Quality of Alternatives | 1.14 | 0.55, 2.38 | 1.40 | 0.91, 2.16 |
| Investment Size | **2.14†** | **0.94, 4.88** | **0.55\*** | **0.33, 0.91** |
| Commitment | **8.49\*\*** | **1.72, 41.97** | 0.71 | 0.43, 1.15 |
|  |
| †<.10;\**p*<.05; \*\**p*<.01; \*\*\**p*<.001*Note.* Significant and marginally significant findings in bold. All models control for duration of sexual relationship (defined as days between first and most recent sex, log transformed) |

***Duration of Relationship.*** In addition to controlling for the duration of the sexual relationship (log transformed), a reviewer also suggested examining whether duration moderates the associations between the investment model and transitions in relationship. Because of the exploratory nature of these results, we advance no specific directional hypotheses. To test these models, we conducted an extension of Model 2 in Table 5 in the main text. In this model, all predictors and two-way interactions with duration were entered simultaneously. No interactions emerged as significant (*p*’s > .102).

**Additional Papers Published with this Dataset**

Seven papers have been published using these data. Although several of these papers have examined investment model variables, none have examined how the investment model is associated with relationship categorization, either concurrently or prospectively. For instance, Vanderdrift, Agnew, Harvey, and Warren (2013) examined how the investment model was associated with which partner has more influence over condom use, and Agnew, Harvey, VanderDrift, and Warren (2017) examined how the investment model was associated with condom use. Below is an alphabetic list of these papers:

Agnew, C. R., Harvey, S. M., VanderDrift, L. E., & Warren, J. (2017). Relational underpinnings of condom use: Findings from the Project on Partner Dynamics. *Health Psychology, 36,* 713-720*.*

Harvey, S. M., Washburn, I., Oakley, L., Warren, J., & Sanchez, D. (2016). Competing Priorities: Partner-specific relationship characteristics and motives for condom use among at-risk young adults. *The Journal of Sex Research*. doi:10.1080/00224499.2016.1182961

Sanchez, D. M., Schoenbach, V. J., Harvey, S. M., Warren, J. T., Adimora, A. A., Poole, C., Leone, P. A., & Agnew, C. R. (2016). Association of perceived partner non-monogamy with prevalent and incident sexual concurrency*. Sexually Transmitted Infections, 92,*266-271*.*

Sanchez, D. M., Schoenbach, V. J., Harvey, S. M., Warren, J. T., Poole, C., Leone, P. A., Adimora, A. A. & Agnew, C. R. (2016). Can young adults accurately report sexual partnership dates? Factors associated with inter-partner and dyad agreement. *Sexually Transmitted Diseases, 43, 324-331.*

Tan, K., Agnew, C. R., VanderDrift, L. E., & Harvey, S. M. (2014). Committed to us: Predicting relationship closeness following non-marital romantic relationship breakup. *Journal of Social and Personal Relationships, 32*, 456-471.

Warren, J., Harvey, S. M., Washburn, I. J., Sanchez, D. M., Schoenbach, V. J., & Agnew, C. R. (2015). Concurrent sexual partnerships among young heterosexual adults at increased HIV risk: Types and characteristics. *Sexually Transmitted Diseases, 42,* 180-184.

VanderDrift, L. E., Agnew, C. R., Harvey, S. M., & Warren, J. T. (2013). Whose intentions predict? Power over condom use within heterosexual dyads. *Health Psychology*, *32*, 1038-1046.