# Focusing on the Focusing Illusion...

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**Abstract**

The paper presents evidence that validate the focusing illusion. Specifically, the forecasted impact of a basketball championship on students' subjective well-being was exaggerated because of their intense focus on the event. However, the self-reported states of being for life domains not closely associated with the focal event remained stable throughout the survey periods. Further analysis of the data finds that the exaggerated *level* of subjective well-being brought about by the focusing illusion had minimal spillover effects on the reported *levels* of subjective well-being for the other life domains.

**Keywords:** Focusing illusion; spillover; subjective well-being; life domains

## 1. INTRODUCTION

Compared to the actual or recall of the impact of an event or circumstance on a person's subjective well-being (SWB), the perceived impact is usually exaggerated because the person focused on the event or circumstance.[1] This overreaction—which is also called "focusing illusion" (Schkade and

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[1] SWB is a personal consideration of how one's state of being is turning out to be well and relatively free of

Kahneman 1998)—occurs because focused thinking on an event or circumstance makes the event or circumstance very significant, invokes strong emotions, creates mental scenarios, etc., to cause the person to make a big deal out of the situation. The focusing illusion—a type of cognitive bias—is an important explanation to why SWB, in some cases, is inaccurate or, in other instances, is flawed.

The focusing illusion is fundamentally an outcome of two related processes. The first one is called "projection bias" (Loewenstein et al. 2003) wherein attention to an event or circumstance at initial time, $t = 0$, is assumed to remain the same throughout succeeding periods, $t > 0$. The other process is called "affective forecasting bias" (Gilbert and Wilson 2000) wherein the valence of an event or circumstance and intensity of SWB at $t = 0$ is assumed to remain constant over $t > 0$. The property of constancy in both processes is also called "durability bias" (Gilbert et al. 1998; Wilson et al. 2000).

In other words, the focusing illusion indicates a failure to consider that perspective, attention, and feeling change with the passage of time. First, there is "rationalization" (e.g., Wilson and Gilbert 2008), a stage wherein a person tries to make sense out of the situation, thereby facilitating adaptation to the new or changed context. Then, attention is withdrawn as the focal event or circumstance loses novelty and importance to the person. In the end, the exaggerated level of SWB adjusts toward a baseline level, or an evaluation that may be considered as "illusion free".

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unpleasant events or experiences. SWB is an umbrella concept. One part of it is cognitive (i.e., satisfaction or happiness) and another part is affective (i.e., positive and negative emotions). The cognitive part can be called "evaluative happiness" and the affective part as "emotional happiness." The scope of the evaluation for either part can vary as well. Thus, "life domain" is either global (i.e., a person's life on the whole), specific (i.e., an aspect of a person's life), or momentary (i.e., at a particular point in time of a person's life) evaluation. In this paper, SWB is limited to evaluative happiness and covers global and specific evaluations only. It is important that a person makes a self-evaluation of state of being and conveys the assessment using some measurement scale.

Repeated studies have established that, indeed, the focusing illusion results in biased SWB. One of the first studies is Schkade and Kahneman (1998), who found that college students paid particular attention to the overall quality of the environment in their area when making comparisons about the living conditions in California, Ohio, and Michigan. Focusing on the climate made respondents conclude that California was a better place compared to either Ohio or Michigan even though climate did not mean a real difference in their SWB.

Gilbert et al. (1998) studied the reaction of assistant professors to the outcome of their tenure applications. The analysis involved a "forecasters" group (i.e., those who would be applying for tenure) and an "experiencers" group (i.e., those who applied and got or did not get tenure).[2] They found that both types of applicants overestimated the short-term impact of the outcome of their application to SWB but were generally accurate about the long-term impact of the outcome of their application.

Buehler and McFarland (2001), on the other hand, examined the reaction of college students to their final grades. Initially, respondents were asked to predict their SWB if what they received at the end of the semester was a grade higher, the same, or lower than expected. Subsequently, respondents were also asked about their SWB after they received their actual grades at the end of the semester. Results showed that respondents overpredicted their SWB regardless of what they projected to be their final grade.

In yet another school-related experiment, Wilson et al. (2000) analyzed the reaction of college students to the outcome of a football game.[3] In one version of the study, respondents were asked

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[2] Kermer et al. (2006) and Eastwick et al. (2008) also use the forecaster and experiencer setup.

[3] American football is the focal event in Wilson et al. (2000). European football (or soccer) is the focal event in Schwarz et al. (1987) and in Dolan and Metcalfe (2010).

before the actual game to rate their SWB if their school team won or lost an important game. Respondents were also assigned to either control group or treatment group. The findings showed that the forecasted SWB were exaggerated regardless of the outcome of the actual game. More importantly, SWB started to level off a few days after the focal event. In fact, this conclusion holds regardless of the grouping of respondents, albeit SWB of those in the treatment group were generally lower compared to those in the control group.

In another version of the experiment, Wilson et al. (2000) asked respondents to report their SWB right after a football game and, again, a few days later. Similarly, the SWB of respondents after the game were exaggerated but started to fall few days after the focal event and especially so after other games had been played by the school team during the week.

Of course, different settings and experimental procedures have been tried to test the focusing illusion. Wilson and Gilbert (2003) have surveyed the literature up to 2002. Recent studies in this topic analyze vacation (Wirtz et al. 2003), hemodialysis (Riis et al. 2005), colostomy (Smith et al. 2006), income (Kahneman et al. 2006), gambles (Kermer et al. 2006), experiencing relationship breakups (Eastwick et al. 2008), unemployment (Dolan and Powdthavee 2011), and housing (Nakazato et al. 2011).

At one level, if the focusing illusion is limited to the associated life domain (or domains), then it has no bearing on the other life domains that are not relevant or directly connected to the focus (c.f., Schwartz and Clore 1983; Schimmack et al. 2002).[4] That is, the *instability* of SWB for a life domain (due to the focusing illusion) cannot affect the *stability* of SWB for the other life domains not relevant to the focusing illusion. This view is actually consistent with the findings that

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[4] "Life domain" refers to the scope of evaluation. Here, it can refer to life overall or a specific domain of life.

emotions (Diener and Emmons 1985) as well as evaluations of life (Lucas et al. 1996) and of social realities (Hooghe 2012) are separable and independently measurable constructs. It is also consistent with the notion that people make evaluations on various levels and dimensions of life domains (Michalos 1980). In fact, SWB is stable provided life conditions are also relatively the stable across time (Diener and Larsen 1984; Costa and McCrae 1988).

Yet, on another level, the focusing illusion in one life domain is presumed to have no spillover effects on the other life domains. In short, the exaggerated *level* of SWB for a life domain (due to the focusing illusion) cannot affect the *levels* of SWB for the other life domains not relevant to the focusing illusion. This notion is generally accepted because test-retest results often show that the levels of SWB for the other life domains are relatively *stable* despite the focusing illusion in one aspect of life. Nevertheless, what needs emphasis here is that the *level* of SWB is different from the *stability* of SWB.

Thus, in addition to verifying the focusing illusion, the present study presents results on the notion that the focusing illusion has zero spillover effect on the levels of SWB for the other life domains. This problematique—despite an appearance of "splitting hairs"—has very important implications on the usefulness of SWB *per se*. If it is established that the levels of SWB for the other life domains are similarly biased by the focusing illusion, then this confirmation puts doubt to the basic value of SWB as an object of analysis and, given recent developments, as input to public policy. Indeed, a zero or even trivial impact from the focusing illusion is not only a validation of the usefulness of SWB, but also a push for greater accuracy in measurement procedures in order that SWB is rendered comparable across contexts and peoples.

Following the introduction, the theoretical and empirical framework of the paper is presented in Part 2. Then, a discussion of the survey methodology follows. Results are presented in Part 4. The

last section concludes the paper.

## 2. FRAMEWORK

**Theoretical Setup**

A key variable in the analysis of the focusing illusion is time itself because, as mentioned earlier, perspective, attention, and feeling change with the passage of time. Accordingly, take $Z$ as SWB for a life domain (however defined) and takes the general form $Z = F(t, X)$, where $t$ is time and $X$ is a vector of determinants like socio-economic profile, etc. As with the extant literature, $Z$ is not a person's "representation" of the perceived state of being of another but rather it is a person's "representation" of one's own internal state of being.

Applying total differentiation obtains $dZ = F_t\, dt + F_X\, dX$. Simplifying the expression gets $\dfrac{dZ}{dt} = F_t$ $+ F_X \dfrac{dX}{dt}$. If $\dfrac{dX}{dt} = 0$ (i.e., it does not change within a fixed period), then the focusing illusion is verified when $\dfrac{dZ}{dt} = F_t \neq 0$ at $t$. There are deflated evaluations when $F_t > 0$ and inflated evaluations when $F_t < 0$. From the total differentiation, the expression $\dfrac{dZ}{dX} = F_X$ is obtained which measures of the relationship between $X$ and $Z$.

Next, consider two SWB for two life domains, Z and $Y$. As with Z, $Y$ is the same person's "representation" of internal state of being but on the other life domain. For now, set the focusing illusion on Z (as above) but not on $Y$. To determine if there is a spillover effect from the *level* of Z to the *level* of Y requires the following expression, $Y = H[t, X, Z(t, X)]$.

Again, total differentiation obtains $dY = H_t\, dt + H_X\, dX + H_Z\dfrac{\partial Z}{\partial t}dt + H_Z\dfrac{\partial Z}{\partial X}dX$ and so $\dfrac{dY}{dt} = H_t +$

$H_X\dfrac{dX}{dt} + H_Z\dfrac{\partial Z}{\partial t} + H_Z\dfrac{\partial Z}{\partial X}\dfrac{dX}{dt}$. With $\dfrac{dX}{dt} = 0$ obtains $\dfrac{dY}{dt} = H_t + H_Z\dfrac{\partial Z}{\partial t}$. The assumption that $H_t = 0$

results in the simpler expression, $\dfrac{dY}{dt} = H_Z\dfrac{dZ}{dt}$. Therefore, $H_Z$ measures the spillover effect and its

sign indicates if the impact is positive or negative. Lastly, obtaining the expression $\dfrac{dY}{dX} = H_X +$

$H_Z\dfrac{\partial Z}{\partial X}$ gives the relationship between $X$ and $Y$ given that $X$ also related to Z.


**Empirical Setup**

Regression analysis is used to test whether $\dfrac{dZ}{dt} > 0$ is statistically significant. Note that $t$ is also the

particular survey round. Note further that the regression analysis needs to take into account the

nature of the dataset. In this study, several responses were obtained from the same respondents.

As such, respondents form one dimension and their responses across survey rounds form another

dimension. The latter is therefore nested in the former. The repeated measures procedure will not

give efficient results when the assumptions of compound symmetry and sphericity are violated

and when there are missing observations in the dataset.


Given the nature of the dataset in this study (described in Section 3), the appropriate method for

analysis is the multilevel repeated procedure.[5] Thus, for the focusing illusion, the following set of

equations comprises the multilevel specification: $Z_{ti} = \alpha_0 + \alpha_1\, time_{ti} + \varepsilon_{ti}$ with $\alpha_0 = \beta_{00} + \beta_{01}X_i + e_{0i}$

for the between respondent variation and $\alpha_1 = \beta_{10} + \beta_{11}X_i + e_{1i}$ for the within respondent variation.

So the regression model is $Z_{ti} = \beta_{00} + \beta_{01}X_i + \beta_{10}\, time_{ti} + \beta_{11}(X{\cdot}time)_i + (e_{0i} + e_{1i}time_{ti} + \varepsilon_{ti})$ with $t =$

$0, 1\ldots n$. From Section 2.1, the focusing illusion is confirmed if and only if $\beta_{10} \neq 0$. The sign on $\beta_{01}$

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[5] Arguably, the multilevel repeated procedure implicitly controls for personality and culture.

(i.e., $\frac{dZ}{dX}$) depends on the specific determinant included in the model.

Correspondingly, to find out if the *level* of $Z$ affects the *level* of $Y$ requires the following set of equations: $Y_{ti} = \alpha_0 + \alpha_1 time_{ti} + \alpha_2 Z_{ti} + \alpha_3(time \cdot Z)_{ti} + \varepsilon_{ti}$ with $\alpha_0 = \varphi_{00} + \varphi_{01}X_i + e_{0i}$, $\alpha_1 = \varphi_{10} + \varphi_{11}X_i + e_{1i}$, and $\alpha_2 = \varphi_{20} + e_{2i}$ for the between respondents, within respondent, and within $Z$ variations, respectively. Notice that $Z_{ti}$ and its interaction with *time* are on the first level equation. For the regression analysis, $\alpha_3$ is not a random parameter. They obtain $Y_{ti} = \varphi_{00} + \varphi_{01}X_i + \varphi_{10}time_{ti} + \varphi_{11}(X \cdot time)_i + \varphi_{20}Z_{ti} + \alpha_3(Z \cdot time)_{ti} + (e_{0i} + e_{1i}time_{ti} + e_{2i}Z_{ti} + \varepsilon_{ti})$. No focusing illusion in $Y_{ti}$ makes $\varphi_{10} = 0$. Then, the impact of the focusing illusion in $Z_{ti}$ on $Y_{ti}$ is therefore measured by $\varphi_{20} \neq 0$. Its effect on $Y_{ti}$ across time is indicated by $\alpha_3 \neq 0$. From the above setup, $\frac{dY}{dX} = \varphi_{01} + \varphi_{20}\beta_{01}$ measures relationship between $X$ and $Y$. Note that $\varphi_{11}$ indicates if a change in the relationship between $X$ and $Y$ across time exists.

## 3. METHODOLOGY

Emails containing an invitation to answer an online survey were sent to college students at Ateneo de Manila University. Participation was voluntary. No extra credit was offered to the students.

The surveys took place in 2011 and 2012. Data were collected for two months from September to October of each year. Both periods coincided with the basketball championship games of the 74th and 75th seasons of the University Athletics Association of the Philippines. Ateneo de Manila University was at the championships in both seasons. It won its "four-peat" championship and its "five-peat" championship, respectively.[6]

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[6] "Four-peat" means winning four consecutive championships. "Five-peat" means winning five consecutive

The four-peat championship is not a unique achievement in the tournament, but it was a chosen as a focal event for students at Ateneo de Manila University because it meant that the school equaled the record of its two rival schools.[7] The five-peat championship may be argued as a unique achievement because no school under the current format of the tournament (i.e., since 1993) had managed to pull off such feat (see Footnote 7). At any rate, both occasions were perfect natural settings for an experiment on the focusing illusion of the students.[8]

The surveys in 2011 had three rounds. The first round was sent to the students two weeks before the championship games were held. The next round followed two weeks after the school won the championship. Then, the third round was done two weeks after the second round or four weeks after the school won the championship. Respondents to the 2011 surveys answered three rounds.

The schedule was similar in 2012. The treatment and control respondents were identified for the 2012 surveys. The former answered all three rounds. In contrast, latter answered only the second and third survey rounds (i.e., after the championship was won). This setup was necessary to find out if the intensity of focusing illusion results in an anchoring effect, thereby influencing the level of SWB in the successive rounds (c.f., Dolan and Metcalfe 2010).

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championships.

[7] The University of Santo Tomas (1993-1996) and De La Salle University (1998-2001) had four consecutive championships. The University of the East had seven consecutive championships (1965-1971) under the old format of the tournament in the 1950s, but its third championship in 1967 was shared with the University of Santo Tomas. That is, the University of the East had four consecutive championships as sole champion. The University of Santo Tomas had six consecutive championships during the early years of the tournament (in 1939-1940 and in 1946-1949 seasons with no games during World War II), but it was not sole champion in two occasions, in 1939 and 1947. The tournament had four competing schools before the 1950s. Ateneo de Manila University and De La Salle University joined the tournament in 1978 and 1986, respectively.

[8] Another way of looking at the 2012 championship is that respondents saw the 5-peat championship as a unique achievement within their lifetime.

The first segments of the 2011 and 2012 surveys have identical content. Following an explanation of the purpose of the survey, a declaration that the survey and its protocol were approved by the Committee on Ethics of the school, and guarantees on the confidentiality of information and responses, details like school ID number, email, and profile like gender, age, and school year level were collected from respondents. [9] The other and last part of the 2011 surveys contained two items regarding the focal event (c.f., Wilson et al. 2000), as follows:

*Mark the corresponding number to indicate your happiness if Ateneo de Manila University **will win** the 4-peat basketball championship. Note: 0 or 0% means completely unhappy, 5 or 50% means neutral or indifferent, and 10 or 100% means completely happy.*
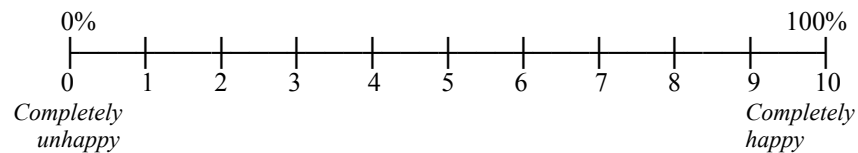


*Mark the corresponding number to indicate your happiness if Ateneo de Manila University **will not win** the 4-peat basketball championship. Note: 0 or 0% means completely unhappy, 5 or 50% means neutral or indifferent, and 10 or 100% means completely happy.*
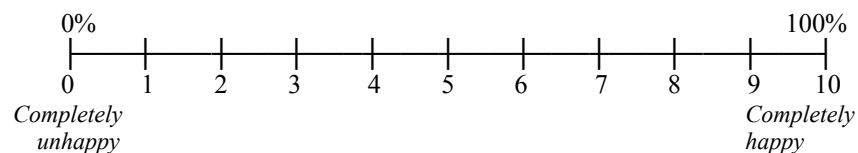


**Figure 1**

These queries were reworded into past tense when asked after the first round of the 2011 surveys. There were no queries on other life domains in this case.

The third—and last—part of the 2012 surveys is the counterpart of the above items queried in the

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[9] The introductory statement of the survey mentioned that student information was obtained from the Office of Student Affairs. The reference to the Office of Student Affairs was deliberate so that respondents take the exercise seriously.

2011 surveys. For the 2012 surveys, however, they were placed last in order to minimize question-order effects (c.f., Strack et al. 1988). The queries read as follows:

*Mark the corresponding number to indicate your happiness if Ateneo de Manila University **will win** the 5-peat basketball championship. Note: 0 means 0% happy, 5 means "50-50" (i.e., neutral or indifferent), and 10 means 100% happy.*

```
├──┼──┼──┼──┼──┼──┼──┼──┼──┼──┤
0    1    2    3    4    5    6    7    8    9   10
0% happy                                    100% happy
```
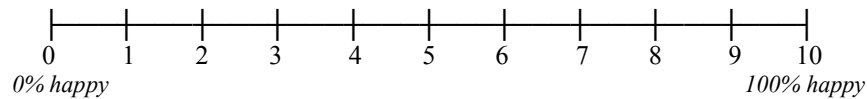
*Mark the corresponding number to indicate your happiness if Ateneo de Manila University **will not win** the 5-peat basketball championship. Note: 0 means 0% happy, 5 means "50-50" (i.e., neutral or indifferent), and 10 means 100% happy.*

```
├──┼──┼──┼──┼──┼──┼──┼──┼──┼──┤
0    1    2    3    4    5    6    7    8    9   10
0% happy                                    100% happy
```
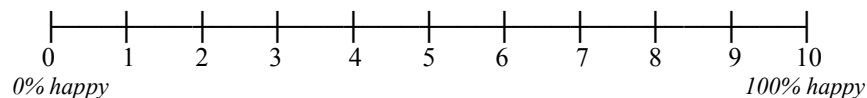
**Figure 2**

Note that the control group in the 2012 surveys answered the above two items in the two post championship rounds. The queries were reworded into past tense when asked after the first round of the 2012 surveys.

The middle part of the 2012 surveys dealt with the life domains. These included two queries on "overall" life judgments and two queries on "specific" life domains, particularly associated with the school and being a student of the school, as follows:

*Mark the corresponding number to indicate your happiness with your life. On the scale below, 0 means "0% happy" and 10 means "100% happy". [Life-1]*

```
├──┼──┼──┼──┼──┼──┼──┼──┼──┼──┤
0    1    2    3    4    5    6    7    8    9   10
0% happy                                    100% happy
```
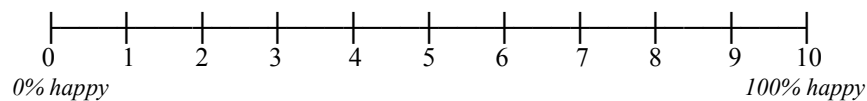
*Mark the corresponding number to indicate your happiness with how your life is going so far. On the scale below, 0 means "0% happy" and 10 means "100% happy". [Life-2]*

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
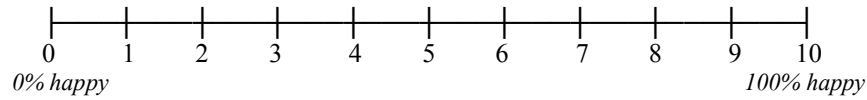
*0% happy*                                                                 *100% happy*

*Mark the corresponding number to indicate your happiness with your entire and overall experience as student at Ateneo de Manila University. On the scale below, 0 means "0% happy" and 10 means "100% happy". [Ateneo]*

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

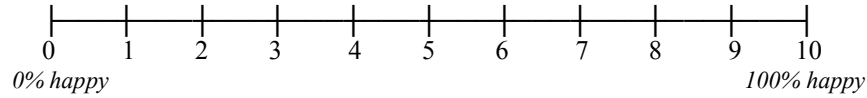*0% happy*                                                                 *100% happy*

*Mark the corresponding number to indicate your happiness to be Atenean.[10] On the scale below, 0 means "0% happy" and 10 means "100% happy". [Atenean]*

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

*0% happy*                                                                 *100% happy*
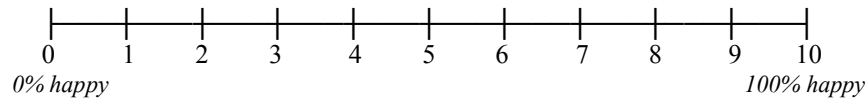
**Figure 3**

The list of life domains was deliberate in order to test the relative impact of the focal event. In addition, the list of life domains was intended to be short in order to keep respondents interested throughout the three rounds of the surveys.

It was necessary that respondents of the 2011 surveys and those in the treatment group of the 2012 surveys were not told about a second round after they answered the first round of the surveys. It was, however, important that respondents were asked if they would still be willing to answer a final round after completing the second round in order to minimize biased answers in the final round caused by survey irritation, fatigue, etc. In contrast, respondents in the control group of the 2012 surveys were asked after the initial round if they would be willing to answer another round of the survey. Only the timing of the final round of the surveys was not revealed to respondents.

In the end, the 2011 surveys had 378 valid respondents (male = 136 (36%), $age_{ave.378}$ = 18.6, and range = 16 - 22 years). Most respondents were second and third year students ($N_{first}$ = 15 (15.3%),

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[10] The label "Atenean" refers to students and alumni of Ateneo de Manila University.

$N_{second} = 122$ (32.3%), $N_{third} = 106$ (28%), and $N_{fourth} = 92$ (24.3%)). The 2012 surveys had 584

valid respondents comprising both the control and treatment groups. Both second and third year

students comprised the majority of both control group ($N_{control} = 267$, male = 104 (39%), $age_{ave.267}$

= 18.9, range = 17 to 22 years; $N_{second} = 111$ (41.6%), $N_{third} = 109$ (40.8%), and $N_{fourth} = 47$

(17.6%)) and treatment group ($N_{treatment} = 317$, male = 124 (39%), $age_{ave.317} = 18.9$, range = 17 to

22 years; $N_{second} = 136$ (42.9%), $N_{third} = 237$ (40.1%), and $N_{fourth} = 54$ (17 %)).[11]

A few points about the design of the measurement scale used in the study are apt in this juncture.

Notice, first, the calibration (Figures 1, 2, and 3) indicates that "0" on the scale is the same as

"0%" and that "10" on the scale is the same as "100%". These qualifiers ensure that the cognitive

processes during the evaluation of a life domain are similar, if not appropriately equivalent, for all

respondents. What the qualifiers accomplish in the end is a correspondence between the numerical

sequence 0-1-2-3-4-5-6-7-8-9-10 and the percent sequence of 0-10-20-30-40-50-60-70-80-90-100.

Accordingly, individual achievements are brought in context of personal goals and evaluated on a

fixed increment of 10 percent. Finer increments are not necessary because the cardinality of SWB

is realized anyway with little demand on cognitive power. Beyond the correspondence in ratings,

notice that the qualifiers also succeeds in internalizing the comparison of individual evaluations

with respect to a life domain, social convention, time, etc.[12] In short, the measurement scale in

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[11] No first year student was included in the 2012 surveys. This exclusion was done to minimize "extreme" overreactions to the win and lose queries given that first year students have not previously experienced the school winning a championship. Thus, the 2012 surveys (second to fourth years) included students who knew what it felt like when the school won a championship. In a way, the exclusion of first year students in the 2012 surveys also serves as a validation on the robustness of the results given that the 2011 surveys had first year students.

[12] Cardinality and intra- and interpersonal comparability can be demonstrated using a thought experiment. Consider two half-full glasses. Their and the substance used to fill the glasses need not be the same. Now, imagine asking any person to choose the half-full glass. The answer will of course be "both are half full" or a similar answer. The same conclusion would be had regardless of who, where, and when the evaluation

this study is able to obtain SWB that is cardinal and intra- and interpersonally comparable.

## 3. FINDINGS

Tables 1 and 2 present the means of SWB for both win and lose scenarios in the 2011 and 2012 surveys. For the 2011 surveys, results confirm a downward linear trend in the means of the win scenario ($F(1, 377) = 103.7$, $p < 0.001$) and an upward linear trend in the means of lose scenario ($F(1, 377) = 41.168$, $p < 0.001$). The same conclusion is reached for the means of the win and lose scenarios in the control group (win scenario $F(1, 266) = 40.1$, $p < 0.001$; lose scenario $F(1, 266) = 22.1$, $p < 0.001$) and treatment group (win scenario $F(1.989, 316) = 58.736$, $p < 0.001$; lose scenario $F (1.897, 316) = 48.726$, $p < 0.001$) of the 2012 surveys.[13] Further analyses of the data in Table 1 determine no difference in the means of both the control and treatment groups during the post championship rounds ($\Delta M_{After:win-lose} = -0.07$ and $\Delta M_{Followup:win-lose} = 0.03$, both $p$ = n.a.). In short, having been asked to indicate SWB before the championship in 2012 did not have a statistically significant impact on the responses in the succeeding survey rounds. This finding is a useful proof against panel-effect bias wherein repeated queries from the same person can result in answers that are anchored or fixed to the initial response. The changes in the means of SWB in the win and lose scenario observed throughout the surveys therefore confirm the impact of the focusing illusion.

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was done. However, the nature of comparability in this context is still in the relative sense and not in the absolute sense. Analytically, the measurement scale obtains $SWB_i(x) \equiv SWB_i(y)$ even if $x \neq y$ but $\in Q$, where $i$ and $j$ are individuals, $x$ and $y$ are "objects" of interest, and $Q$ is a set of items with the same general attributes (e.g., vacations).

[13] The assumption of sphericity is rejected in the 2011 surveys: Mauchly's tests are, respectively, $\chi^2(2) = 3.562$ with $p$ = n.s. for the win scenario and $\chi^2(2) = 10.477$ with $p < 0.01$ for the lose scenario. The same goes for the 2012 treatment surveys: Mauchly's tests are, respectively, $\chi^2(2) = 17.312$ with $p < 0.001$ for the win scenario and $\chi^2(2) = 17.572$ with $p < 0.001$ for the lose scenario. Thus, the Greenhouse-Geisser adjusted F-statistics are reported in text.

Meanwhile, analyses of the information in Table 2 find that the means of the other life domains do not vary across time (control group $F(1, 266) < 1.20$ in all cases, $p = $ n.s.; treatment group $F(1, 316) < 0.7$ in all cases, $p = $ n.s.). In fact, means analysis indicates that any difference in the means between the control and treatment groups for a specific life domain and particular survey round is not statistically significant. This stability in the means of the other life domains is an indication of their neutrality with respect to the focal event. But, as discussed in the following paragraphs, the stability of other life domains across time is separate from their levels across time.

**Multilevel Regression Analysis**

Consider first the regression results for the 2011 surveys. There is indeed a downward trend in the win scenario ($\beta_{time} = -0.361$, $p < 0.001$) and an upward trend in the lose scenario ($\beta_{time} = 0.358$, $p < 0.001$). These trends do not vary by gender (win $\beta_{male} = -0.134$ and lose $\beta_{male} = -0.056$, both $p = $ n.s.) and the same goes for all survey rounds (win $\beta_{male \cdot time} = -0.071$ and lose $\beta_{male \cdot time} = 0.040$, both $p = $ n.s.).[14] Results further reveal that on average respondents belonging in the lower year levels tend to exaggerate the impact of the focal event much more than those belonging to the upper year levels (win $\beta_{yrlevel} = -0.140$ and lose $\beta_{yrlevel} = 0.205$, both $p < 0.05$). In fact, the perception of students on the impact of the focal event on their well-being was invariant across year levels for all survey rounds (win $\beta_{yrlevel \cdot time} = 0.040$ and lose $\beta_{yrlevel \cdot time} = 0.030$, both $p = $ n.s.).

Next, in the case of the 2012 surveys, the trends in the means of the win ($\beta_{time} = -0.477$, $p < 0.001$) and lose scenarios ($\beta_{time} = 0.401$, $p < 0.001$) did vary by gender (win $\beta_{male} = -0.403$ and lose $\beta_{male} = $

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[14] A positive $\beta$ in the lose scenario indicates an increasing mean toward "5" or "50%" (i.e., neutral). The notation follows the setup in the empirical framework. Note: the estimates are not standardized coefficients.

0.437, both $p < 0.01$) and remained so throughout the surveys (win $\beta_{male \cdot time} = -0.043$ lose $\beta_{male \cdot time}$ = 0.010, both $p$ = n.s.). As with the 2011 surveys, respondents in the lower year levels tended on average to exaggerate the impact of the focal event; but, in this case, only the win scenario is statistically significant (win $\beta_{yrlevel} = -0.222$, $p < 0.05$; lose $\beta_{yrlevel} = 0.095$, $p$ = n.s.). How respondents in the lower year levels perceived the impact of the focal event on their well-being is similarly invariant across survey rounds (win $\beta_{yrlevel \cdot time} = 0.073$ and lose $\beta_{yrlevel \cdot time} = 0.012$, both $p$ = n.s.). At the same time, results are invariant to the grouping assignment of respondents (win $\beta_{control} = -0.168$ and $\beta_{control \cdot time} = 0.101$, both $p$ = n.s.; lose $\beta_{control} = 0.171$ and $\beta_{control \cdot time} = 0.046$, both $p$ = n.s.).

Lastly, the means of the other life domains are stable across survey rounds, as expected (Life-1 $\beta_{time} = 0.055$, Life-2 $\beta_{time} = 0.071$, Ateneo $\beta_{time} = -0.116$, and Atenean $\beta_{time} = -0.095$, all $p$ = n.s.). They are also invariant to gender, year level of students, and the assignment of respondents into control or treatment group, as well as their interactions with time (all $p$ = n.s.).

The above findings prove that students of Ateneo de Manila University experienced the focusing illusion during the 2011 and the 2012 championships. Not surprisingly, the perceived impact of the focal event was much more exaggerated for students who did not have an experience or had limited experience of the school winning a championship (particularly, the championships in the 2009 and 2010 seasons). Yet, it is also interesting to find that male respondents, who generally tend to be much more spirited and vociferous at the games, turned out to be relatively subdued in how they perceived the impact of the focal event on their SWB compared to female respondents. This finding might suggest a gender dimension to the focusing illusion but it is something that is beyond the intent of the study.

**[Insert Tables 3A and 3B Here]**

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How much impact did the focusing illusion have on the levels of SWB for the other life domains is summarized in Tables 3A and 3B for the win and lose scenarios, respectively. There is no doubt that the focal event had an unambiguously small but positive impact on the other life domains when the query was set in the win scenario (Table 3A) and a rather insignificant impact when the query was set in the lose scenario (Table 3b). Thus, assuming a self-report of 10 (or 100%) in the win scenario, the contribution of the focusing illusion to the level of SWB for the other domains ranges from 10% to 14% in the case of *Life-1* and *Life-2* and from 20% to 30% in the case of *Ateneo* and *Atenean*. That the lose scenario turned out to be of little consequence could be an artifact of the situation because the championship in 2012 was deemed "in the bag" so to speak.

Based on the above finding, the impact of the focusing illusion on the other life domains varies according to the scope of the life domain under consideration. Naturally, there is little spillover effect in the case of overall life evaluations compared to the school-anchored domains since the focal event directly involves the school and its students. This differential impact is evidence that SWB for other life domains are able to maintain their integrity and usefulness despite the presence of the focusing illusion in another life domain.

## 4. CONCLUSION

Analyses of two surveys established that college students experienced the focusing illusion in the context of basketball championships involving their school. The trends ascertained by regression analyses were found robust even controlling for the gender and year levels of respondents, their assignment into the control or treatment groups, and the nested structure of the data.

That the focusing illusion biases subjective reports on well-being is well understood, and so it is not a surprise to validate it in this study. What may be of interest is that the study corroborated the

literature on the focusing illusion using data from a developing country. It is remarkable that the evidence in this study is consistent with a recent Gallup study that lists Filipinos as among the very emotional peoples in the world.[15] It is likewise remarkable—and, perhaps, the most important contribution of the study to the literature—that not only are impacts of the focusing illusion on the levels of SWB for the other life domains graduated but also they are conditional to the degree of association between the focal event and the other life domains.

The findings of the study provide reinforcement to the recent initiatives of mainstreaming SWB in public policy. There are, of course, valid apprehensions to such move. For instance, using SWB in public policy might itself produce the focusing illusion—that is, the focus on SWB for public policy brings about the focusing illusion thereby nullifying the usefulness of SWB as input to public policy. Even so, the conclusion that not all life domains would be affected by the focusing illusion in the same manner and degree indicates that a "wholesale" abandonment of SWB is not warranted because the other life domains remain useful gauges of the impact of public policy. For instance, if raising income produces the focusing illusion (Kahneman et al. 2006), then policy makers can look into other measures that are related to income but not directly linked to income (e.g., freedom to purchase goods with little trouble, ability to buy things that one likes, etc.). Frequent review and evaluation of measures are needed in order to pre-empt the focusing illusion from springing up in the other life domains. Other issues like direct and indirect manipulation of SWB (c.f., Campbell 1976; Goodhard 1975) including the variations in the internal structure of SWB as a consequence of public policy (c.f., Lucas 1976) are concerns that must be tackled head on because they, too, threaten the usefulness of SWB as input to public policy. Evidence can be developed more in future research; but, for now, their impacts can only be surmised to be similar to that of the focusing illusion.

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[15] See http://www.gallup.com/poll/159254/latin-americans-positive-world.aspx#2

Thus, SWB is a valid and reliable construct that conveys useful information about the internal state of a person. It is useful for analysis and valuable for applied work like public policy. It is not a perfect measure; but, with proper application, it can be instrumental in making people and society benefit from public policy.

**REREFENCES**

Buehler, R. and McFarland, C. (2001). Intensity bias in affective forecasting: The role of temporal focus, *Personality and Social Psychology Bulletin*, 27(11): 1480-1493

Campbell, D. (1976). Assessing the impact of planned social change, Occasional Paper No. 8, Social Research and Public Policies, Hanover, NH: Dartmouth College

Costa, P. and McCrae, R. (1988). Personality in adulthood: A six-year longitudinal study of self-reports and spouse ratings on the NEO personality inventory, *Journal of Personality and Social Psychology*, 54(4): 853-863

Diener, E. and Emmons, R. (1985). The independence of positive and negative affect, *Journal of Personality and Social Psychology*, 47(5): 71-75

Diener, E. and Larsen, R. (1984). Temporal stability and cross-situational consistency of affective, behavioral, and cognitive responses, *Journal of Personal and Social Psychology*, 47(4): 580-592

Dolan, P. and Metcalfe, R. (2010). 'Oops. . .I did it again': Repeated focusing effects in reports of happiness, *Journal of Economic Psychology*, 31(4): 732-737

Dolan, P. and Powdthavee, N. (2011). Thinking about It: A note on attention and well-being losses from unemployment, *Applied Economics Letters*, 19(4): 325-328

Eastwick, P., Finkel, E., Krishnamurti, T., and Loewenstein, G. (2008). Mispredicting distress following romantic breakup: Revealing the time course of the affective forecasting error, *Journal*

*of Experimental Social Psychology*, 44(3): 800-807

Gilbert, D. and Wilson, T (2000). Miswanting: Some problems in the forecasting of future affective states, in J. Forgas (ed.), *Thinking and feeling: The role of affect in social cognition* (pp. 178-97), Cambridge: Cambridge University Press

Gilbert, D., Pinel, E., Wilson, T., and Blumberg, S. (1998). Immune neglect: A source of durability bias in affective forecasting, *Journal of Personality and Social Psychology*, 75(3): 617-638

Goodhart, C. (1975). Monetary relationships: A new form of Threadneedle Street, Papers in Monetary Economics No. 1, Sydney: Reserve Bank of Australia

Hooghe, M. (2012). I am happy, hope you're happy too: Examining the different dynamics of individual subjective well-being and view on society, *Journal of Happiness Studies*, 13(1): 17-29

Kahneman, D., Krueger, A., Schkade, D., Schwarz, N., and Stone, A. (2006). Would you be happier if you were richer? A focusing illusion, *Science*, 312(5782): 1908-1910

Kermer, D., Driver-Linn, E., Wilson, T., and Gilbert, D. (2006). Loss aversion is an affective forecasting error, *Psychological Sciences*, 17(8): 649-653

Loewenstein, G., O'Donoghue, T., and Rabin, M. (2003). Projection bias in predicting future utility, *Quarterly Journal of Economics*, 118(4): 1209-248

Lucas, R. (1976). Econometric policy evaluation: a critique, in K. Brunner and A. Meltzer (ed.),

*The Phillips Curve and Labor Markets* (pp. 19–46), New York, NY: North Holland.

Lucas, R., Diener, E., and Suh, E. (1996). "Discriminant validity of well-being measures," *Journal of Personality and Social Psychology*, 71(3): 616-628

Michalos, A. (1985). Multiple discrepancies theory, *Social Indicators Research*, 16(4): 347-413

Nakazato, N., Schimmack, U., and Oishi, S. (2011). Effect of changes in living conditions on well-being: A prospective top-down bottom-up model, *Social Indicators Research*, 100(1): 115-135

Riis, J., Loewenstein, G., Baron, J., Jepson, C., Fajerlin, A., and Ubel, P. (2005). Ignorance of hedonic adaptation to hemodialysis: A study using ecological momentary assessment, *Journal of Experimental Psychology: General*, 134(1): 3-9

Schimmack, U., Diener, E., and Oishi, S. (2002). Life satisfaction is a momentary judgment and a stable personality characteristic: The use of chronically accessible and stable sources, *Journal of Personality*, 70(3): 345-384

Schkade, D. and Kahneman, D. (1998). Does living in California make people happy? A focusing illusion in judgments of life satisfaction, *Psychological Sciences*, 9(5):340-346

Schwartz, N. and Clore, G. (1983). Mood attribution, judgments of well-being: Informative and directive functions of affective states, *Journal of Personality and Social Psychology*, 45(3): 513-523

Schwarz, N., Strack, F., Commer, D., and Wagner, D. (1987). Soccer, rooms, and the quality of

your life: Mood effects on judgments of satisfaction with life in general and with specific domains, *European Journal of Social Psychology*, 17(1): 69-79

Smith, D., Sherriff, R., Damschroder, L., Loewenstein, G., and Ubel, P. (2006). Misremembering colostomies? Former patients give lower utility ratings than do current patients, *Health Psychology*, 25(6): 688-695

Strack, F., Martin, L., and Schwarz, N. (1988). Priming and communication: Social determinants of information use in judgments of life satisfaction, *European Journal of Social Psychology*, 18(5): 429-442

Wilson, T. and Gilbert, D. (2003). Affective forecasting, in M. Zanna (ed.), *Advances in experimental social psychology* (pp. 345-411), San Diego: Academic Press

Wilson, T. and Gilbert, D. (2008). Explaining away: A model of affective adaptation, *Perspectives on Psychological Science*, 3(5): 370-386

Wilson, T. Wheatley, T., Meyers, J., Gilbert, D., and Axsom, D. (2000). Focalism: A source of durability bias in affective forecasting, *Journal of Personality and Social Psychology*, 78(5): 821-836

Wirtz, D., Kruger, J., Scollon, C., Diener, E. (2003). What to do on Spring Break? The role of predicted, on-line, and remembered experience in future choice, *Psychological Science*, 14(5): 520-524

**Table 1**
Means of reported well-being for win and lose scenarios

| Scenarios, Z | 2001 Surveys All Respondents | 2012 Surveys Treatment Grp | Control Grp |
|---|---|---|---|
| Win: | | | |
| Round 1 (Before) | 8.87 | 8.74 | N.A. |
| Round 2 (After) | 8.50 | 8.39 | 8.46 |
| Round 3 (Follow up) | 8.23 | 8.06 | 8.03 |
| | | | |
| Lose: | | | |
| Round 1 (Before) | 2.36 | 2.34 | N.A. |
| Round 2 (After) | 2.70 | 2.78 | 2.92 |
| Round 3 (Follow up) | 3.01 | 3.26 | 3.34 |

**Notes:**
1. Lose scenario: the closer the number to five the more neutral is the reported well-being. Figures for the lose scenario can be recoded as $(5 - \text{self-report}_i)$, thus the value of zero actually corresponds to zero happiness.
2. For the 2011 and 2012 surveys, respectively, means indicated in each column are statistically different by row. For the 2012 surveys, means indicated in each row are not statistically different by column.
3. Refer to Figures 1 and 2 in Section 2 for the phrasing of the queries on the win and lose scenarios in the 2011 and 2012 surveys.

**Table 2**
Means of reported well-being for other domains

| Life Domains, Y | 2012 Surveys | |
| --- | --- | --- |
| | Treatment Grp | Control Grp |
| Life-1: | | |
|     Round 1 (Before) | 7.75 | N.A. |
|     Round 2 (After) | 7.84 | 7.91 |
|     Round 3 (Follow up) | 7.81 | 7.96 |
| | | |
| Life-2: | | |
|     Round 1 (Before) | 7.41 | N.A. |
|     Round 2 (After) | 7.51 | 7.58 |
|     Round 3 (Follow up) | 7.48 | 7.66 |
| | | |
| Ateneo: | | |
|     Round 1 (Before) | 7.96 | |
|     Round 2 (After) | 7.91 | 8.07 |
|     Round 3 (Follow up) | 7.91 | 8.00 |
| | | |
| Atenean: | | |
|     Round 1 (Before) | 7.48 | N.A. |
|     Round 2 (After) | 7.46 | 7.36 |
|     Round 3 (Follow up) | 7.49 | 7.30 |

**Notes:**
1. Means indicated in each column by life domain are statistically different by row. Means indicated in each row are likewise not statistically different by column.
2. Refer to Figure 3 in Section 2 for the phrasing of the life domain queries.

**Table 3A**

Results of multilevel repeated model regressions, win scenario

| Coefficients | Dependent variable: Life Domain | | | |
|---|---|---|---|---|
| | **Life-1** | **Life-2** | **Ateneo** | **Atenean** |
| _Fixed Parameters:_ | | | | |
| $\varphi_{20}$ (i.e., win) | 0.116 | 0.146 | 0.226 | 0.368 |
| | $(0.035)^{hs}$ | $(0.039)^{hs}$ | $(0.036)^{hs}$ | $(0.041)^{hs}$ |
| $\alpha_3$ (i.e., win·time) | 0.012 | 0.001 | 0.005 | 0.001 |
| | $(0.018)^{ns}$ | $(0.020)^{ns}$ | $(0.019)^{ns}$ | $(0.020)^{ns}$ |
| _Random Parameters:_ | | | | |
| Repeated, t=0 | 0.562 | 0.802 | 0.573 | 0.777 |
| | $(0.124)^{hs}$ | $(0.167)^{hs}$ | $(0.130)^{hs}$ | $(0.157)^{hs}$ |
| t=1 | 0.595 | 0.783 | 0.744 | 0.633 |
| | $(0.060)^{hs}$ | $(0.079)^{hs}$ | $(0.069)^{hs}$ | $(0.068)^{hs}$ |
| t=2 | 0.294 | 0.582 | 0.450 | 0.293 |
| | $(0.105)^{vs}$ | $(0.128)^{hs}$ | $(0.108)^{hs}$ | $(0.107)^{vs}$ |
| (1,1) between t | 5.417 | 3.875 | 5.719 | 10.933 |
| | $(1.583)^{hs}$ | $(1.833)^{s}$ | $(1.563)^{hs}$ | $(2.035)^{hs}$ |
| (2, 2) within t | 0.124 | 0.056 | 0.080 | 0.166 |
| | $(0.059)^{s}$ | $(0.074)^{ns}$ | $(0.059)^{ns}$ | $(0.067)^{s}$ |
| (3, 1) between Z | -0.531 | -0.237 | -0.477 | -1.002 |
| | $(0.186)^{vs}$ | $(0.213)^{ns}$ | $(0.175)^{vs}$ | $(0.221)^{hs}$ |
| (3, 3) within Z | 0.061 | 0.019 | 0.045 | 0.102 |
| | $(0.022)^{vs}$ | $(0.025)^{ns}$ | $(0.020)^{s}$ | $(0.025)^{hs}$ |

**Notes:**

1. From Section 2, the specification is: $Y_{ti} = \varphi_{00} + \varphi_{01}X_i + \varphi_{10}time_{ti} + \varphi_{11}(X \cdot time)_i + \varphi_{20}Z_{ti} + \alpha_3(Z \cdot time)_{ti} + (e_{0i} + e_{1i}time_{ti} + e_{2i}Z_{ti} + \varepsilon_{ti})$.

2. hs = $p < 0.001$, vs = $p < 0.01$, s = $p < 0.05$, and n.s. = not statistically significant. Numbers in the parentheses are standard errors.

3. Table presents results for Z and Z·time only. Results for Xs, time, and their interaction are not statistically significant (and are not reported in the table), except for the case of Atenean and $\varphi_{01(X=Male)} = 0.26$ ($p < 0.05$)—that is, male students tend to report higher $SWB_{Atenean}$ controlling for reports for the win scenario. It may appear contrary to the main results but, in closer inspection, it could point to a situation wherein male students are less expressive in terms of $SWB_{win}$ but such "suppression" manifests in $SWB_{Atenean}$. Covariances of the random parameters are not statistically significant.

**Table 3B**
Results of multilevel repeated model regressions, lose scenario

| Coefficients | Dependent variable: Life Domain | | | |
|---|---|---|---|---|
| | **Life-1** | **Life-2** | **Ateneo** | **Atenean** |
| Fixed Parameters: | | | | |
| $\varphi_{20}$ (i.e., lose) | 0.056 | 0.030 | -0.022 | -0.064 |
| | $(0.260)^s$ | $(0.029)^{ns}$ | $(0.030)^{ns}$ | $(0.029)^s$ |
| $\alpha_3$ (i.e., lose·time) | -0.042 | -0.025 | -0.019 | -0.036 |
| | $(0.015)^{vs}$ | $(0.017)^{ns}$ | $(0.018)^{ns}$ | $(0.017)^s$ |
| Random Parameters: | | | | |
| Repeated, t=0 | 0.566 | 0.858 | 1.237 | 0.863 |
| | $(0.125)^{hs}$ | $(0.173)^{hs}$ | $(0.110)^{hs}$ | $(0.175)^{hs}$ |
| t=1 | 0.591 | 0.757 | 1.039 | 0.618 |
| | $(0.059)^{hs}$ | $(0.079)^{hs}$ | $(0.073)^{hs}$ | $(0.077)^{hs}$ |
| t=2 | 0.315 | 0.563 | 0.533 | 0.429 |
| | $(0.108)^{vs}$ | $(0.132)^{hs}$ | $(0.071)^{hs}$ | $(0.129)^{hs}$ |
| intercept | | | 0.062 | |
| | | | $(0.006)^{hs}$ | |
| (1,1) between t | 1.272 | 1.381 | N.A. | 1.789 |
| | $(0.177)^{hs}$ | $(0.214)^{hs}$ | | $(0.250)^{hs}$ |
| (2, 2) within t | 0.113 | 0.022 | 0.062 | 0.092 |
| | $(0.061)^{ns}$ | $(0.078)^{ns}$ | $(0.006)^{hs}$ | $(0.075)^{ns}$ |
| (3, 1) between Z | -0.127 | -0.085 | N.A. | -0.026 |
| | $(0.041)^{vs}$ | $(0.044)^s$ | | $(0.041)^{ns}$ |
| (3, 3) within Z | 0.034 | 0.033 | 0.062 | 0.019 |
| | $(0.013)^{vs}$ | $(0.016)^s$ | $(0.006)^{hs}$ | $(0.016)^{ns}$ |

**Notes:**

1. From Section 2, the specification is: $Y_{ti} = \varphi_{00} + \varphi_{01}X_i + \varphi_{10}time_{ti} + \varphi_{11}(X·time)_i + \varphi_{20}Z_{ti} + \alpha_3(Z·time)_{ti} + (e_{0i}+e_{1i}time_{ti} + e_{2i}Z_{ti} + \varepsilon_{ti})$.

2. hs = $p < 0.001$, vs = $p < 0.01$, s = $p < 0.05$, and n.s. = not statistically significant. Numbers in the parentheses are standard errors. Results for covariance parameters of Ateneo are based on an identity covariance structure.

3. Table presents results for Z and Z·time only. Results for Xs, time, and their interaction are not statistically significant (and are not reported in the table). Covariances of the random parameters are not statistically significant, except for Atenean but its size is small.