

# An Economic Comparison of Post-Communist States to Others in Europe

**Ashley Foster**, author

Dr. James Simmons, Political Science, faculty mentor

Dr. James Krueger, Political Science, faculty mentor

Ashley Foster graduated in Spring 2016 magna cum laude with degrees in political science and Spanish language and literature, as well as a minor in history. Her research began in her Political Methodology course, and was built upon throughout her senior year. She is now pursuing a paralegal diploma at Northeast Wisconsin Technical College.

Dr. James Simmons is a professor of political science at UW Oshkosh. He earned his B.A., M.A., and Ph.D. from Indiana University.

Dr. James Krueger, a UW Oshkosh professor of political science, studies political behavior and public opinion in the United States. His recent work focuses on the relationship between group identity and support for military intervention.

## ***Abstract***

Communism fell in Europe in 1989, making it necessary for European countries that had been communist to transition to market-based systems and more democratic regimes in the years following. It has been over 25 years since the fall of the Berlin Wall, which began the reforms in post-communist countries. The purpose of this study is to analyze how the economies of these post-communist European countries compare to other European countries between the years of 2002 and 2007, after this period of transition. The results suggest that post-communist countries experienced more economic growth during the period studied. The results also indicated that less democratic states experienced more economic growth than states that were more democratic.

## ***Introduction***

The Berlin Wall fell in 1989. From then on into the early 1990s, Central and Eastern European countries began making a remarkable change from communist state-run to market-based economic systems and democracy (Hollander 1993; Seleny 2007; Lipton 2014; Kušić 2010). This was an unprecedented shift—national re-privatization had never occurred before—and these states had to undergo massive social and economic transitions (Hollander 1993, 43). After 25 years, structural economic reforms are now generally complete for virtually all countries (Roaf et al. 2014). It took centuries for the West to get to where they are now, and the Western countries are the new benchmark for the post-communist states. However, some post-communist states have experienced regime and overall political instability following their transitions—something that other European states have not recently experienced on the same level, and which could hold dire economic consequences for the post-communist states.

Ukraine is one state that has experienced turmoil following its post-communist transition. Ukraine's privatization was more gradual than that of other states; a small group of elite rulers came to dominate politics, and the country experienced controversies with elections and the murder of a journalist who had been linked to President Leonid Kuchma. All of this led to political uprising in the country between 2004 and 2005, with "anywhere from one hundred thousand to upwards of a million" demonstrators flooding Kyiv (Hale 2005, 154). Civilians were not the only ones to join in the uprising—police and military forces came to join the crowds as well. Ukraine's post-communist transition was a remarkably rocky one with very little political stability.

The Balkans also experienced much instability after the breakdown of communism in the region. Stan (2012) found that beginning in 1997, "political disruption, corruption, states institutions collapsing and starvation caused by the failures" of the transition government hit Albania (153). The Balkan region as a whole also experienced extreme tensions between ethnicities, some of which has even resulted in armed conflict and threatening government authority (2012). Albania and the Balkan region as a whole present additional examples of post-communist political instability.

Given that political stability is favorable for economic growth, there may be concerns that post-communist states are not performing well economically, as there has been political turmoil following the transition, such as in Ukraine and the Balkans (Hall and Nishikawa 2014). The purpose of this research is to examine how the economies of European post-communist countries compare to those that had never been communist between the years of 2002 and 2007.

### ***Literature Review***

According to public choice theory, private ownership is more efficient (Nellis 1994). It has indeed been found that private firms generally have better performance outcomes than public ones (Nellis 1994). This should mean that countries transitioning from state-controlled economies should see greater economic outcomes following privatization. However, according to Nellis, the problem is that some post-communist countries have not made full reforms or have reverted, leading to outcomes that are not as progressive as they otherwise would be (1994). Hashi and Xhillari found that privatization in Albania was not implemented well, and it did not lead to as much economic improvement as expected (1999). Post-communist privatization also led to issues in Montenegro—Koman et al. found that many firms had been asset-stripped during the transition and ended up disappearing (2015). Similarly, Crivelli's 2013 study showed that privatization actually had a negative fiscal impact in transitioning countries. On the contrary, Gugler, Ivanova, and Zechner found that privatization had positive effects on the post-communist economies—the private sector was found to perform better than the state-run sector (2014).

In 1993, Hollander argued that the transition from communism led to some severe economic problems or even "chaos" due to the massive transformations and economic restructuring that had to take place (51). However, Hollander's article was written just a few years after the fall of communism. The International Monetary Fund (IMF) did find that all of the countries experienced recessions at the beginning of the transition (Roaf et al. 2014). However, these recessions seem to be the transformational

recessions caused by the transition to the market economy as identified by da Rocha (da Rocha 2015). Other literature shows that some countries have experienced extreme economic progress in their relatively short post-communist periods, even after experiencing initial economic hardship. Bulgaria and Romania were two of the hardest hit countries, but, along with others, they were able to join the European Union (Seleny 2007). Seleny argues that many post-communist countries, particularly those that have joined the European Union, have transitioned remarkably quickly and successfully (2007).

Some literature shows that post-communist transition countries still face issues with democracy. Informal practices that were common during communism, such as bribery and other forms of corruption, are still in existence in transition countries today (Seleny 2007; Roaf et al. 2014; Blagojević and Damijan 2012). Seleny found that movements to remove this corruption in Poland actually seemed to centralize government and that some states, such as Slovakia, have still leaned toward more authoritarian systems (2007). Peev and Mueller also note that “several former members of the Soviet Union have either not adopted democratic institutions at all, or quickly reverted to some form of authoritarian rule after a brief interlude of democracy” (2012, 371). Similarly, *Freedom House* discovered that the majority of the former Soviet Union is under authoritarian rule (2007). Literature shows that more democracy is a significant influence on economic growth and that democratic countries with minimum corruption experience faster economic growth (Peev and Mueller 2012; Zajenkowski, Stolarski, and Meisenberg 2013).

Some scholars believe that foreign direct investment is an important factor for creating economic growth and development in post-communist countries (Curwin and Mahutga 2014; Soulsby and Clark 1996). The influence of foreign direct investment is debated, however, as the findings of Curwin and Mahutga show that there is not a positive relationship between foreign direct investment and economic growth (2014).

Natural resources are also shown to have an impact on economic growth. Upreti argues that “a country rich in natural resources can benefit from the production and sale of such wealth” (2015, 39). However, other poor countries have fallen into a “resource trap” if they have an abundance of natural resources (Upreti 2015, 40). This trap leads states to invest a majority of capital, both human and physical, in the production and sale of natural resources, which in turn diminishes other industries. Exchange rates also rise with the export of natural resources, making their other exports more costly (Upreti 2015). The impact that natural resources have on economic growth can therefore be debated, as an abundance of resources can both be beneficial or harmful to a state.

### ***Hypotheses***

Post-communist states in Europe underwent massive economic reforms and experienced transformational recessions, both of which would seem to set post-communist states back further in terms of economic growth, especially when compared to other states in Europe. Post-communist states overall also have lower levels of democracy—and democracy generally correlates with economic growth. Decades have now passed since the beginning of the transition from communism in Europe. This period of time should allow for the strengthening of transition economies. Given all of these elements post-communist transition states should have slightly lower

rates of economic growth than those that had never been communist. It is also expected that countries that are more democratic should experience more economic growth. Based on the literature, hypotheses were formulated about the expected economic growth of European post-communist transition states in relation to the growth of others. The possibility that there may not be a relationship between post-communist status and economic growth was taken into account in the first hypothesis. Specifically, it is expected that:

1. Post-communist transition states will not have lower rates of economic growth than states that had never been communist.
2. Post-communist transition states will have slightly lower rates of economic growth than states that had never been communist.

### **Methods**

The purpose of this research is to compare the economies of post-communist states in Europe to the economies of others in Europe following a period of transition. The control variables are *foreign direct investment*, *level of freedom* as a measure of democracy, and *total natural resource rent* as a percent of GDP.

The measure of economic comparison that will be used for the dependent variable is the *growth in GDP per capita* in current US dollars. The growth was calculated between the years 2002 and 2007. This time period was chosen since it allows for an initial transition period for the post-communist states following the shift away from communism in Europe that began in 1989. This is also the ideal period to assess since it falls between the burst of the dot-com bubble and ensuing recession in the early 2000s, and the recession that began in 2007. The growth was calculated by subtracting the GDP per capita in 2002 from the GDP per capita in 2007, and dividing that amount by the GDP per capita in 2002. This value was multiplied by 100 for interpretation purposes. The data on GDP per capita was retrieved from the World Bank's World Development Indicators databank and was collected by the World Bank and the OECD. The mean growth in GDP per capita is 125.61%. The standard deviation is 60.477.

The primary independent variable for analysis is whether a state is or is not post-communist. This data was retrieved from the IMF's special report on regional economic issues, titled "25 Years of Transition: Post-Communist Europe and the IMF" and published in 2014. This report was put together by James Roaf, Ruben Atoyán, Bikas Joshi, Krzysztof Krogulski, and an IMF staff team. The variable for whether a country is post-communist is coded as 1, and 0 for countries that have never been communist. Out of the 33 countries included in the analysis, 16 had never been communist and 17 are post-communist. Of the countries included in the sample, 52% are post-communist. Table 1 shows the countries included in the analysis and their relationship with communism.

**Table 1.** Countries included in sample.

Post-Communist (1)	Not Post-Communist (0)
Albania	Austria
Bosnia and Herzegovina	Cyprus
Bulgaria	Denmark
Croatia	Finland
Czech Republic	France
Estonia	Greece
Hungary	Iceland
Latvia	Ireland
Macedonia	Italy
Moldova	Netherlands
Poland	Norway
Romania	Portugal
Russia	Spain
Serbia	Sweden
Slovakia	Switzerland
Slovenia	United Kingdom
Ukraine	

A control variable that is included in the analysis is how free the state is. It is used as a measure of democracy since “freedom is possible only in democratic political environments where governments are accountable to their own people” (“About Us”). The literature demonstrated that democracy is a significant influence on economic growth, making it an important variable to include in the analysis. The data on freedom was retrieved from *Freedom House’s* “Freedom in the World 2007” survey, which assesses democracy and political freedom in terms of political rights and civil liberties. This freedom variable is coded from 1 to 7, with 1 meaning that a country is totally free and 7 meaning not free at all. The mean level of freedom is 1.58, and the standard deviation is 1.039.

*Net inflow of foreign direct investment* is also included as a control variable. Some scholars argue that foreign investment increases economic growth; some believe that foreign investment leads to dependence that ultimately slows economic growth (Curwin and Mahutga 2014). Including foreign direct investment inflow in the analysis will offer some evidence for one school of thought or the other. Foreign direct investment net inflow is measured in current US dollars. This data collected is from the year 2002. It was retrieved from the World Bank’s World Development Indicators dataset and was based on balance of payments data that had been reported by the IMF. The mean foreign direct investment net inflow is \$7.61 billion; however, the median is far less at \$1.66 billion. The standard deviation of foreign direct investment net inflow is \$12.45 billion.

The last control variable that is included in the analysis is *total natural resource rent* as a percent of GDP. *Total natural resource rent* is the sum of oil, hard and soft coal, natural gas, mineral, and forest rents. This variable was included in the analysis as abundance of natural resources can either benefit, or harm, states’ economies (Upreti 2015). This data was from 2007. It was retrieved from the World Bank’s World Development Indicators dataset and was based on sources and methods described in “The Changing Wealth of Nations: Measuring Sustainable Development in the New Millennium” (World Bank 2011). The mean total natural resource rent as a percent of

GDP was 3.103%; however, the median is lower, at 1.3%. The standard deviation is 5.98386%.

The test that will be used to analyze the data is a linear multivariate regression. This test was chosen for the analysis since the dependent variable, *growth in GDP per capita*, is continuous, and there are multiple independent variables. The linear regression will allow for controlling and comparing the possible competing explanations for economic growth—whether or not the country is post-communist, *level of freedom*, *foreign direct investment inflow*, and *total natural resource rent* as a percentage of GDP.

**Regression equation**

$$\text{GDP per capita growth} = a + b_1 \cdot \text{post-communist status} + b_2 \cdot \text{level of freedom} + b_3 \cdot \text{foreign direct investment inflow} + b_4 \cdot \text{total natural resource rent as a percent of GDP} + \text{error}$$

**Data Analysis**

**Table 2.** Post-communist status influencing growth of GDP per capita.

	Unstandardized Coefficients	Standardized Coefficients
Post-communist status	66.831*** (17.949)	0.561
Foreign direct investment net inflow	-1.130E-10 (0.000)	-0.023
Level of freedom	6.190 (10.280)	0.106
Total natural resource rent as a percent of GDP	3.216* (1.573)	0.318
Constant	72.313 (16.122)	
N=33		Adjusted R-Square = .576

Cells report coefficient of a logistic regression, with standard errors in parentheses.  
 \*\*\* p < .001    \*\* p < 0.01    \* p < 0.05

The linear regression reveals that there is a statistically significant relationship between economic growth and post-communist status. A state being post-communist corresponds with 66.831% *growth in GDP per capita*, controlling for *foreign direct investment inflow*, *level of freedom*, and *total natural resource rent* as a percentage of GDP. Post-communist countries actually experienced more economic growth between 2002 and 2007 than countries that had not been communist. However, this does not support the hypothesis that post-communist countries would have slightly lower growth rates than countries that had not been communist.

There is also a significant relationship between *total natural resource rent* as a percentage of GDP and economic growth. A 1% increase in *total natural resource rent* corresponds with a 3.216% change in GDP per capita, controlling for whether or not the country had been communist, *level of freedom*, and *foreign direct investment inflow*.

There is no significant relationship between freedom and economic growth, most likely due to the small sample size and little variation among the sample. As the freedom variable is coded from 1 to 7, with 7 symbolizing the least amount of freedom, less free states actually experienced more economic growth between 2002 and 2007 than more free states did, which was unexpected. With the small sample size and little variation among the sample, it is hard to be significant. There is also no significant relationship between *foreign direct investment inflow* and economic growth.

### ***Discussion***

The results of the multivariate linear regression show that between 2002 and 2007 the European post-communist countries were actually experiencing more economic growth than countries that had never been communist. As previously stated, this does not support the hypothesis that the growth rate of post-communist countries would be slightly lower than that of countries that had never been communist. This is most likely because post-communist states had more room to grow in their economies than states that had never been communist. Presumably, this would mean that post-communist economies are beginning to reach where the economies of states that had never been communist are at, which is important as many may be moving out of the “developing” world and into the “developed” world. This seems to be in accordance with the literature showing that many of the transition states are beginning to join organizations like the European Union, which is seen as an indicator of progress.

The results of the regression show that the less free European states were actually experiencing more economic growth between 2002 and 2007. This makes sense since the literature shows that many of the post-communist states leaned toward less democratic, more authoritarian regimes, and the post-communist states experienced more economic growth than the other European states. It is intriguing, however, because many scholars argue that democracy should promote economic growth. Based on the analysis, this does not seem to be the case in Europe between 2002 and 2007. One possible explanation for this could be that the less democratic countries have a higher level of integration with the Russian economy. This could be a direction for further research.

It is interesting that there was no relationship between foreign direct investment inflow and growth of GDP per capita. As previously stated, some scholars argue that foreign investment increases economic growth. Based on this study’s analysis, this does not seem to be the case. The countries that received the most foreign direct investment, including France, Spain, Ireland, and the United Kingdom, are among those that experienced the least amount of economic growth. Oddly, the four countries that received the most foreign direct investment are also countries that had not been in transition. Some scholars argue that foreign investment leads to dependence, which slows economic growth, so this could certainly be why there is no significant relationship between foreign investment and GDP per capita growth. Since there is still much debate, foreign direct investment influence on economic growth would be an area for further research.

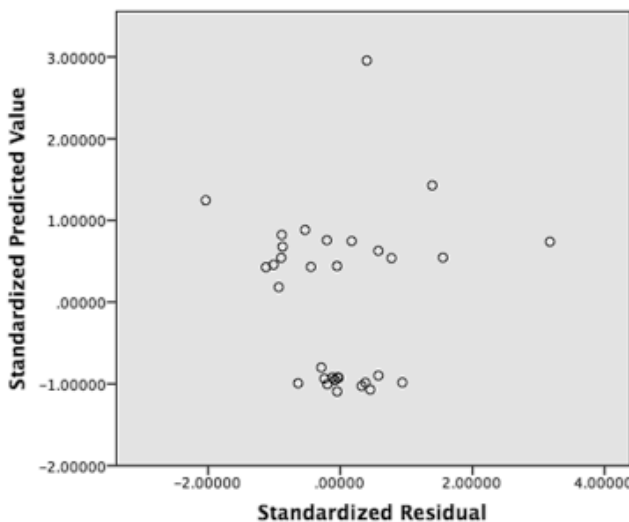
One limitation to this analysis is the low sample size, which does not allow for more independent variables to be added into the equation. With the variables included in the study, 57.6% of the variation in GDP per capita change was able to be explained,

which is fairly good explanatory power. However, if more independent variables were added into the equation, perhaps the amount of variation in GDP per capita change that can be explained would increase. The availability of data ultimately caused the low sample size, as not all states had data available for the same variables or years. Ideally, all European countries would have been included in the study. However, it was necessary to work with what was available.

A caveat to the analysis relates to assumptions drawn from the multivariate linear regression. The variance inflation factors were calculated and ensured no multicollinearity. However, Romania is a statistical outlier as shown by Cook's distance (a measurement that estimates the influence of data points). This could potentially be problematic since Romania has an influence on the analysis. Small sample sizes do have limitations, and Romania may be an exemplification of this. However, since the sample size was already so low, it was necessary to leave Romania in the analysis. If more variables could be included in the analysis, it could help explain Romania's statistical difference. Unfortunately, with the small sample size, not every possible explanation could be captured.

In checking for omitted variable bias with the error term plot, there does seem to be a slight pattern (as seen in figure 1). Unfortunately, as previously stated, no more independent variables can be added into the analysis as data availability limited the number of countries that could be included in the study.

**Figure 1.** Checking for omitted variable bias.



The multivariate linear regression worked well for the research question in examining how post-communist states compare with states that had never been post-communist in economic growth. The regression allowed for controlling and comparing other factors in GDP per capita growth. It would be interesting to do a time-series analysis to see at what point in the transition period the post-communist states began experiencing more economic growth than those that had never been communist. This would be a great direction for further research.



## Conclusion

Between 2002 and 2007, a period with no severe recessions, post-communist transition states were experiencing more economic growth than other European states that had never been communist. Certainly some states need to continue economic reforms; however, with many post-communist countries joining the European Union it seems that the situation of the transition states is improving. Decades following the fall of communism in Europe, these transition countries are experiencing remarkable economic growth, which is beginning to put them on the same playing field as the rest of Europe.

## Bibliography

- “About Us,” Freedom House. Accessed May 29, 2016. <https://freedomhouse.org/about-us>.
- Blagojević, Sandra, and Jože P. Damijan. “The Impact of Corruption and Ownership on the Performance of Firms in Central and Eastern Europe.” *Post-Communist Economies* 5, no. 2 (2012): 133–58. doi:10.1080/14631377.2013.787734.
- Crivelli, Ernesto. “Fiscal Impact of Privatization Revisited: The Role of Tax Revenues in Transition Economies.” *Economic Systems* 37, no. 2 (2013): 217–32. doi:10.1016/j.ecosys.2012.11.003.
- da Rocha, Bruno T. “Let the Markets Begin: The Interplay Between Free Prices and Privatisation in Early Transition.” *Journal of Comparative Economics* 43, no. 2 (2015): 350–70. doi:10.1016/j.jce.2014.10.003.
- “Freedom in the World 2007,” *Freedom House*. Last modified 2007. <https://freedomhouse.org/report/freedom-world/freedom-world-2007>.
- Gugler, Klaus, Natalia Ivanova, and Josef Zechner. “Ownership and Control in Central and Eastern Europe.” *Journal of Corporate Finance* 26 (June 2014): 145–63. doi:10.1016/j.jcorpfin.2014.03.001.
- Hale, Henry E. “Democracy, Autocracy, and Revolution in Post-Soviet Eurasia.” *World Politics* 58, no. 1 (2005): 133–65. <https://muse-jhu-edu.www.remote.uwosh.edu/article/200279>.
- Hall, Steven, and Misa Nishikawa. “The Dynamics of Within-Regime Stability: Party Tenure and Economic Performance.” *International Political Science Review* 35, no. 4 (2014): 430–47. doi:10.1177/0192512113492261.
- Hashi, Iraj, and Lindita Xhillari. “Privatisation and Transition in Albania.” *Post-Communist Economies* 11, no. 1 (1999): 99–125. doi:10.1080/14631379996066.
- Hollander, Paul. “Why Communism Collapsed in Eastern Europe.” *Society* 30, no. 2 (1993): 43–51. doi:10.1007/BF02695807.
- Koman, Matjaž, Milan Lakićević, Janez Prašnikar, and Jan Svejnar. “Asset Stripping and Firm Survival in Mass Privatization: Testing the Hoff-Stiglitz and Campos-Giovannoni Models in Montenegro.” *Journal of Comparative Economics* 43, no. 2 (2015): 274–89. doi:10.1016/j.jce.2014.10.006.
- Kušić, Siniša. “South-Eastern Europe between Socialism, Transition, and Capitalism.” In *Sozioökonomische Perspektiven in Südosteuropa, Volume 2: Cognitive Capitalism and its Reflections in South-Eastern Europe*, edited by Vladimir Cvijanović, Andrea Fumagalli and Carlo Vercellone, 227–42. Frankfurt: Peter Lang AG, 2010.

- “Natural Resource Rents.” *Statistical, Economic and Social Research and Training Centre for Islamic Countries (SESRIC)*, last modified 2011. [http://www.sesric.org/DidYouKnow/doc/NATURAL%20RESOURCES%20RENTS\\_2009.pdf](http://www.sesric.org/DidYouKnow/doc/NATURAL%20RESOURCES%20RENTS_2009.pdf).
- Nellis, John. “Is Privatization Necessary?” *Public Policy for the Private Sector*, last modified May 1994, <http://siteresources.worldbank.org/EXTFINANCIALSECTOR/Resources/282884-1303327122200/007nellis.pdf>.
- Peev, Evgeni, and Dennis C. Mueller. “Democracy, Economic Freedom and Growth in Transition Economies.” *Kyklos* 65, no. 3 (2012): 371–407. doi:10.1111/j.1467-6435.2012.00543.x.
- Pettifer, James. “Albania: The Democratic Deficit in the Post-Communist Period.” In *Routledge Studies of Societies in Transition: Experimenting with Democracy: Regime Change in the Balkans (1)*, edited by Tom Gallagher and Geoffrey Pridham, 237–48. London: Routledge, 2012.
- Roaf, James, Ruben Atoyán, Bikas Joshi, Krzysztof Krogulski, and an IMF Staff Team. *25 Years of Transition: Post-Communist Europe and the IMF (Regional Economic Issues Special Report)*. Washington D.C.: International Monetary Fund, 2014. [https://www.imf.org/external/pubs/ft/reo/2014/eur/eng/pdf/erei\\_sr\\_102414.pdf](https://www.imf.org/external/pubs/ft/reo/2014/eur/eng/pdf/erei_sr_102414.pdf).
- Seleny, Anna. “Communism’s Many Legacies in East-Central Europe.” *Journal of Democracy* 18, no. 3 (2007): 156–70. <https://muse.jhu.edu/article/218822>.
- Soulsby, Anna, and Ed Clark. “The Emergence of Post-Communist Management in the Czech Republic.” *Organization Studies* 17, no. 2 (1996): 227–47.
- Stan, Valentin. “Influencing Regime Change in the Balkans: The Role of External Forces in the Transition.” In *Routledge Studies of Societies in Transition: Experimenting with Democracy: Regime Change in the Balkans (1)*, edited by Tom Gallagher and Geoffrey Pridham, 152–68. London: Routledge, 2012.
- Tucker, Aviezer, Jana Balharova, Ivo Losman, Jan Nemeč, Jan Nemeček, David Ondračka, Zdenek Polák, Roman Skyva, Martina Vyrkova, and Markéta Zídková. “The Czech Transition: Politics before Economics.” *The Journal of Social, Political, and Economic Studies* 22, no. 4 (1997): 395–416. <http://search.proquest.com/docview/216809653/abstract/8E6E4721FBF24144PQ/1?accountid=9355>.
- Upreti, Parash. “Factors Affecting Economic Growth in Developing Countries.” *Major Themes in Economics* 17 (Spring 2015): 37–54. <http://business.uni.edu/economics/themes/Upreti.pdf>.
- “World Development Indicators,” World Bank, last modified May 2, 2016. <http://data.worldbank.org/data-catalog/world-development-indicators>.
- Zajenkowski, Marcin, Maciej Stolarski, and Gerhard Meisenberg. “Openness, Economic Freedom and Democracy Moderate the Relationship between National Intelligence and GDP.” *Personality and Individual Differences* 55, no. 4 (2013): 391–98. doi:10.1016/j.paid.2013.03.013.