

Comic Book Heroes Teach Economic and Political Freedom

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Abstract This research analyzes the use of comic book heroes to persuade students that being economically and politically free, are far superior to socialism's tenants of self-sacrifice for the good of the community that always end in tyranny.

Keywords Teaching Economics, Capitalist Systems, Economic Sociology

I. Introduction

Some years ago, I started teaching a class that was designed to pit the ideology of socialism against that of capitalism using economic theory.¹ From day one, I encountered barriers. First was the reading list; students responded with shock and horror at the titles: among them were Ayn Rand's *Atlas Shrugged*, Milton Friedman's *Capitalism and Freedom*, F.A. Hayek's *The Road to Serfdom*, and Alan Greenspan's 1966 Objectivist article, *Gold and Economic Freedom*. It became quickly apparent to me that it was not the length of the books, nor did the challenging language in the books, rather students' view the books as 'propagandizing capitalism'. Second, more than a few of my students' other professors also had major problems with me introducing capitalist ideology into an economics class. For several semesters, I found that many students refused to be open minded about what I was teaching; they could not hear what I had to say over the loud noise of their liberal professors complaining that I was propagandizing their students by teaching capitalism. The third, and most impenetrable barrier, was determining if I was making any headway into students' thinking processes. I had no test to see if I was changing students' minds about capitalism; I didn't know if I was making a difference.

Starting Fall 2012, 'word on the street' among students

was that I had "outed" myself as a staunch capitalist.² Socialist students took that second class in droves to see if I could change their minds. One of my more out-spoken socialist students went to www.politicalcompass.org in the first week of class, took the 64-question test, and printed out his matrix. The last week of class he did the same, and brought both matrices on the last day of class. He accused me of 'changing him', and proudly showed the class his evidence.³ *Ah-ha!* I thought. *HERE is the way I can see if I'm making a difference with how students are thinking about capitalism.*

Beginning in the Spring 2013 semester, I began using the political compass test in two stages: a beginning-of-semester assignment (to establish a base-line) and an end-of-semester assignment (to establish the change in student perception).⁴ At the end of that semester, after comparing the aggregated pre-semester matrix with the aggregated post-semester matrix, I realized that I had found the tool to begin breaking down Barrier #3. Figure 1, the sample Political Compass below, is a sample political compass matrix: the star is the point resulting from the political compass test statistical analysis.

At the end of Spring 2013 semester, I asked myself, could movement across, or down, the matrix be influenced by demographics (observational variables such as ethnicity, gender, and citizenship), or by attendance, or by course reading materials, or maybe by teaching style? For three semesters I used the reading materials listed above. Then, in the Spring 2014 semester, Marvel Comics released *Captain America: Winter Soldier*.

The theme of the movie was so blatantly 'freedom versus force' that I felt compelled to incorporate it into my curriculum as soon as possible. Fall 2014 I showed *Winter Soldier* to my class for the first time and the movement of the students' dots across that post-semester political compass matrix, from Left (no economic & political freedom) to

1 Just to be clear: I did not make the original design of the class; I merely volunteered to teach it once it cleared the University Curriculum Committee.

2 The word "capitalism" is so fowl that I refuse to use it in class, preferring, instead to refer to myself as a "free marketer".

3 He was upset that his matrix dot moved 6-places to the *Right*.

4 These two assignments carry significant weight in the student's final grade. Plus, I bug the students who procrastinate on this assignment until I get it.

Right (maximum economic & political freedom), was so dramatic that I said to myself, *Ah-HA! Here’s another tool to help me get around the loud liberal professor voices that my students are conditioned to hearing. Students attend to heroes more than their professors!* I had found a way around Barrier #2. To out-shout loud liberal professor voices, I let the heroes and villains speak to the students about ‘truth, justice, and the American Way.’⁵

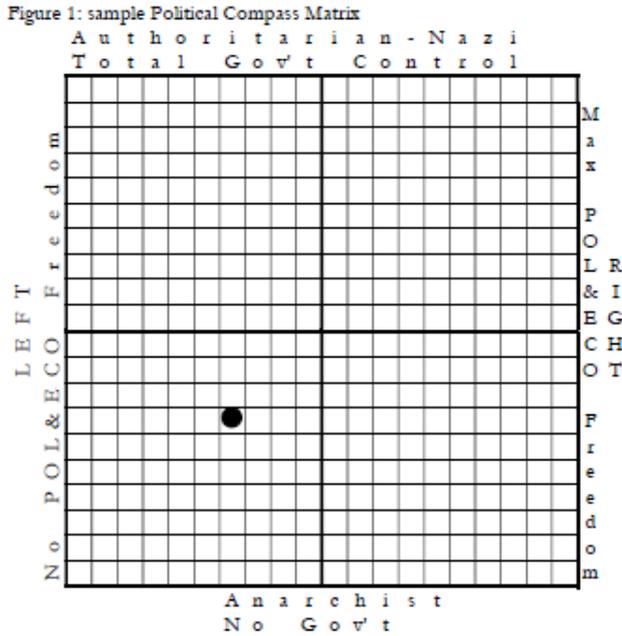


Figure 1. Sample political Compass Matrix

Shortly after the first *Winter Soldier* semester, I realized that I had also found a tool to help me overcome Barrier #1: students avoid reading the massive number of books and articles because they think it’s propaganda. So, I began adding videos like Ronald Reagan’s 1964 GOP convention “A Time for Choosing” speech, and “Commanding Heights, part 1” to the syllabus. Eventually, I augmented, and in some cases, replaced, all of the ‘propaganda’ with ‘hero’ movies and historical ‘hero’ videos. I use excerpts from the assigned class reading to generate class discussion around the socialism versus capitalism debate.

The following research analyzes the use of comic book hero movies and videos to persuade students that free markets and being economically and politically free, are far superior to socialism’s principles of self-sacrifice for the good of the community.

2. Literature Review

The use of comics in curriculum is a legitimate form of teaching. Overstreet [1] says that comic books are considered a legitimate art and literary form originating in the 20th and 21st centuries. Gerde and Foster [2], on page 245,

state “comic books are a modern form of narrative and can be effective in teaching the complexities and social context of specific topics, from critiques of capitalism to faulty products or discrimination in the workplace.” Comic book writers and artists draw from their own creativity, folklore, religion, and culture to build their narratives often reflecting current events, social concerns, and mirroring national zeitgeist. They are contemporary, engaging, and tackle a wide range of topics. Heroes and villains in any form of media (written or video) are a legitimate form for students to study business ethics, business-in-society topics (management, marketing, economics, ethics in general (like corporate greed or national moral issues), capitalism, socialism, human relations, sociology, etc.), current world events, social issues, and consumerism. Gerde and Foster [2], on page 246, provide a variety of scenarios in which comic books and contemporary literature is used in academic classrooms.

Why use comic books? Because students like them. Comic books appeal to their audience’s feelings beyond the rational, objective meanings of the written words. [2] Comic books provide alternative realities in which the consequences of the character’s actions can be explored. Students can address emotionally charged topics in a safe arena. Topics such as government oppression, political and economic freedom versus oppression by an overly heavy handed government using fantasy and unique human characters from folklore allow students to discuss the theoretical consequences of human action. The classic us-versus-them conflict, Gerde and Foster state on page 247, exist in an alternative universe. [2] Students discover that actions have consequences and that there is a direct relationship a country’s political system and the economic growth the country experiences.

Students see the ethical conflicts as universal, and in my own classes, students often reflect on how Captain America, or Nick Fury might respond to economic or political events. Like Gerde and Foster [2], I have observed in my own classrooms that using comics has allowed my students to cross racial, socioeconomic, cultural gaps, gender, and age differences with ease by sharing common reference points. Even my international students bring with them their cultural heroes and villains, inserting them into the class narrative.

What’s really at stake here is the art of persuasion. The central question is, on whose intellectual authority is a student convinced that capitalism is moral? The professor? Or Captain America, Ironman, Spiderman, or the Black Widow? Marietta and Perlman [3] state that most economists use a variety of frameworks (patristic traditions, cultural, or governing legacies) to justify the use of authority in economics. Eric Van den Steen [4] says there is a cost-benefit in the art of persuasion. He starts his analysis with an *a priori* assumption of *free choice*, but allows for that to be supplanted by *force* in the form of authority.

Lying works, too, as a form of propaganda, but not for long, as Glazer and Rubinstein [5] discover in 2012. They use game theory, a complicated form of Prisoner’s Dilemma,

⁵ https://en.wikiquote.org/wiki/The_Adventures_of_Superman

to determine whether or not lies can be used as a persuasion tool. One of their main insights is that some exaggeration is useful, perhaps even necessary, in real-life situations. You will not be surprised, perhaps, to learn that their second and third insights led them to the old saying, “liars never prosper.” When the liar is found to be a liar they lose credibility and are rejected. I failed to locate in their research where an exaggeration turns into a lie.

Fundamentally, use of graphic novels (comic books) in courses release professors from indoctrinating their students. An action desperately needed according to Professor Sir Graham Hills [6] to set out the best and fairest system of education. ‘The obstacle,’ according to Sir Professor Hills, ‘is not a lack of belief or will power, rather a stubborn loyalty to the establishment’s time honored process of grading people in terms of what they know.’ Could it be that the ‘stubborn loyalty’ is not loyalty at all, rather an engrained system of government controlled education that indoctrinates instead of educates?

3. Methodology and Data

The Political Compass is a Cartesian Coordinate Plane, containing the four basic proclivities of people’s desires for political and economic freedom in each of the four quadrants. Quadrants 1 through 4 begin in the upper-right-hand corner with Quadrant I, and proceed counter-clockwise to the lower-right-hand quadrant, which is Quadrant IV. The lower right-hand quadrant (Quadrant IV) is the quadrant that represents a belief in maximum political and economic freedom with small, limited, libertarian government.

I collect the preliminary political compass matrix for each student on the third Friday of the semester, and record the Left-Right and Up-Down data, which quantifies the Cartesian Coordinate Plane matrix dot. I consider the first observation in the beginning of the semester to be a baseline measurement, but, in reality, is just a snapshot of the student’s particular economic and political proclivity at a moment in time.⁶ The post-semester political compass is collected on the second to last Friday of the semester. I record the Cartesian Coordinate Plane matrix dot information, and on the last day of the semester I present the aggregated data for both pre- and post-semester matrices. Figure 2 is the final output of my eight semesters of initial research.

The independent variables, collected by observation rather than formal survey, in the models are: student’s percent of semester attendance, gender, citizenship, ethnicity, student’s percent of attendance on the date that Winter Soldier is shown, and showing the Winter Soldier movie in class. My

data has 159 observations over eight semesters beginning in Spring 2013.

4. Models and Results

Some recently used models in analyzing persuasion include Slater’s [7] reinforcing spirals model. He analyzes the influence of mediated communication on socialization, and the development and maintenance of political, religious, and lifestyle subcultures in contemporary societies. [7] On page 282, he notes that media (content, channels, genre choices) are dependent on the individual’s demographics (age, gender, disposition, environment, mood, ideology, and social influences, for example). So, from a theoretical perspective, the role of media-use variables is an intervening one: he uses media as a dependent variable, which is influenced by the demographics of the user.

But, I follow a model similar to the one used by DellaVigna and Kaplan [8], in their 2007 study of voting behavior, “The Fox News Effect: Media Bias and Voting.” Using rational expectations theory, they posit that voters filter out bias in reporting without being persuaded. They cite prior research, using behavioral theories and cognitive linguistics theories to suggest that voters are persuaded by the media to which they are listening. If one believes that media impact voter behavior, then deregulation of media markets could have a large impact on political outcomes. Using a linear probability model (similar to logit and conditional logit), they found a sizeable impact on the vote-share for Republicans in the 2000 election cycle.

I use Ordinary Least Squares and Logistical (logit) regression models to analyze the data. Both models analyzed the effect the independent variables had the following dependent variables: Dependent Variable 1, called LR-diff, measures the difference in the movement of the matrix dot from the beginning of the semester to the end of the semester: laterally across the matrix from Left (no economic and political freedom)-to-Right (maximum economic and political freedom); LA-diff is the name of the dependent variable analyzing the movement of the matrix dot vertically across the matrix from Up (Totalitarian Government) to Down (Libertarian / Small government). Dependent Variable 2, called LR-elastic, measures the elasticity (percentage change) of the matrix dot movement dot from the beginning of the semester to the end of the semester: laterally across the matrix from Left (no economic and political freedom)-to-Right (maximum economic and political freedom); LA-elastic is the name of the dependent variable measuring the percentage change in movement of the matrix dot vertically across the matrix from Up (Totalitarian Government) to Down (Libertarian / Small government). The unit of measurement is the individual student in each semester class.

Following the DellaVigna and Kaplan (2007, p.1201) research, the simple mathematical model I use is:

Difference (elasticity) in Left-to-Right (or Up-Down)

⁶ I presented the preliminary research results at the 2016 Clemson Institute for the Study of Capitalism conference on the Moral Foundations of a Free Society where it was suggested by Dr. Nigel Ashford, Dr. Paul Cwik, among others, that I use the dependent variables as I have presented them in this paper. The thirty, or so, assembled professors sought for a meaning for the pre-semester political compass, but other than a baseline measurement, the company could not agree on what else it might mean.

matrix dot movement on Political Compass = $\alpha + \beta$ pre-semester L-R (or Up-Down) PC + β percent semester attendance + β Dichotomous Variables⁷

My expectations are that class attendance and watching the *Winter Soldier* film in class will positively impact student’s perceptions of freedom in the economic and political sense such that their Left-Right/Up-Down dot on the political compass matrix will move to the Right and Down, ending up in the lower right-hand quadrant of the political compass by the end of the semester. See Footnote 9 for my expectations, and initial regression observations, for each independent variable in the analysis.⁸ In future research projects, I will analyze the influence demographic variables have on the dependent variables.

The first set of Ordinary Least Squares (OLS) regression models use the student’s matrix dot movement from the beginning of the semester to the end of the semester left-and-right laterally across the board as the dependent variable.⁹ Model 1 uses the difference between the end-of-semester and beginning-of-semester dot movement. Model 2 uses the elasticity in the dot’s movement between the beginning of semester and end of semester.

The second set of OLS regression models use the student’s matrix dot movement from the beginning of the semester to the end of the semester up-and-down vertically across the board as the dependent variable. Model 3 uses the difference between the end-of-semester and beginning-of-semester dot movement. Model 4 uses the elasticity in the dot’s movement between the beginning of semester and end of semester.

The third set of logistical (logit) regression models use the student’s matrix dot movement from the beginning of the

semester to the end of the semester left-and-right laterally across the board as the dependent variable. Model 5 uses the difference between the end-of-semester and beginning-of-semester dot movement. Model 6 uses the elasticity in the dot’s movement between the beginning of semester and end of semester.

The fourth set of logistical (logit) regression models use the student’s matrix dot movement from the beginning of the semester to the end of the semester up-and-down vertically across the board as the dependent variable. Model 7 uses the difference between the end-of-semester and beginning-of-semester dot movement. Model 8 uses the elasticity in the dot’s movement between the beginning of semester and end of semester.

In Table 1 note that OLS is the least optimal form of mathematical modeling for the scattered data in the political compass matrix, but when taken one dimension at a time one can begin to notice a few variables that influenced students to move to Quadrant IV. Note that a negative sign (-) on the coefficient estimator means that the student’s matrix dot moved to the *left* (in the lateral, Left/Right, dimension) and *down* (in the vertical, Libertarian/Authoritarian, dimension). Variables that influenced the student’s matrix dot to shift Right and Down were their gender, showing the *Winter Soldier* movie, attendance in class and the student’s ethnicity.

Lateral Left-Right movement to the Right was approximately ½ to 1 square, whereas vertical movement in the Down direction was approximately ½ to 1 1/3 squares. Variables with lateral movement influence were student’s gender and watching the film. Variables with vertical movement influence were attending class and ethnicity. Most of the variables had some level of “influence:” a variable whose coefficient estimator is not statistically different from zero, but still appears to have a directional influence on the student’s matrix dot. F-statistics for Models 1 and 3 indicate that the independent variables are jointly statistically significant at between the 1-and-10% levels, while Models 2 and 4 are less robust.¹⁰

In Table 2, the Logistical (logit) regression illuminates only a little more about two-dimensional scatter graph. Clearly, the student being in class for the film was significantly helpful in shifting their matrix dot to the Right by about four to five squares. But student’s dots also shifted up by about 2.5-to-3 squares. Other ‘influencing’ variables were gender, attendance, citizenship, and ethnicity. These variables are statistically insignificant, meaning their coefficient estimators are not statistically different from zero. And, in the course of normal scientific research, we would totally discount them as having zero impact. But, I include them here to show that they may have somewhat of a directional influence.

7 Variables: Attendance for the semester (percent); Using the Political Compass Matrix: Pre- and Post-semester matrices illustrating the Left-Right and Authoritarian-Libertarian data; Dichotomous Variables: Yes = 1; No = 0; Gender (Male 1; Female 0); *Winter Soldier* film shown (1;0); Attended *Winter Soldier* class day (1;0); US Citizen (1); non-US Citizen (0); Ethnicity-Race (White (1); non-White (0))

Difference in the Left-Right matrix data point: the Dependent Variable;	Assumption about final impact on L/R, Up/Down, movement of matrix dot
Independent Variables are:	
Attendance for the semester (percent);	Right & Down
Dichotomous Variables: Yes = 1; No = 0;	
Gender (Male 1; Female 0);	Does Gender matter? Initial assumption: Right & Down
<i>Winter Soldier</i> film shown (1;0);	Right & Down
Attended <i>Winter Soldier</i> class days (1;0);	Right & Down
US Citizen (1); non-US Citizen (0);	Right & Down
Ethnicity-Race (White (1); non-White (0))	Does Ethnicity matter? Initial assumption: Right & Down

9 P-values: *** 0<p<1% ; ** 1%<p<5% ; * 5%<p<10% ; I’ve added an additional p-value to my analysis to reflect the top 50% of the right-hand tail in order to show probable influence on the dependent variable: + p>10% (listed in table)

10 The F-statistic, a test of multiple restrictions with known distributions, measures the sum of squared residuals (SSR) for an unrestricted model (Models 1 and 3) relative to the SSR of a restricted model (Models 2 and 4) in order to determine that the independent variables are jointly statistically significant at the 10%, 5%, or 1% levels. Wooldridge [9]

Table 1. OLS Group statistics of pre- and post-semester political compass scores

Table 1: OLS	Model 1-initil	Model 1-final	Left-Right Dot shift	Model 2-initil	Model 2-final	Left-Right Dot shift	Model 3-initial	Model 3-final	Up-Down Dot shift	Model 4-initial	Model 4-final	Up-Down Dot shift
	Dep Var			Dep Var			Dep Var			Dep Var		
	LR-diff			LR-elastic			LA-diff			LA-elastic		
Independent Variable	Coef. (t-stat)						Coef. (t-stat)					
Gender	.59 (1.6)*	.60 (1.65)*	Right	-.69 (1.04) ^{+30%}	-.689 (-1.06) ^{+29%}	Left	.24 (1.03) ^{+30%}			.14 (0.53)		
WS-shown	1.04 (1.07)	1.71 (3.26)***	Right	1.01 (0.58)			-.35 (-0.57)	-.34 (-1.48) ^{+14%}	Down	-.59 (-.87) ^{+39%}	-.699 (-1.39) ^{+17%}	Down
Inclass4 film	.14 (0.13)			-1.61 (-.84) ^{+40%}	-.583 (-.86) ^{+39%}	Left	.006 (0.01)			.65 (0.88) ^{+38%}	.77 (1.45) ^{+16%}	Up
Attendance	-.48 (-0.27)			1.21 (0.38)			-1.38 (-1.21) ^{+23%}	-1.39 (-1.68)*	Down	.34 (0.27)		
US Citizen	.87 (0.92) ^{+36%}	.813 (1.47) ^{+14%}		.013 (0.01)			.41 (0.69) ^{+49%}			.15 (0.22)	.225 (0.57) ^{+57%}	Up
Ethnicity	-.05 (0.05)			.81 (0.53)	.85 (0.92) ^{+36%}	Right	-.95 (-1.70)*	-.64 (-1.94)*	Down	.07 (0.12)		
No. Obs	159	159		155	155		159	159		156	156	
R ²	0.098	0.0801		0.019	0.0164		0.065	0.056		0.018	0.0161	
F-stat	F(6, 152) = 2.75	F(3, 155) = 5.59		F(6, 148) = 0.47	F(3, 151) = 0.84		F(6, 152) = 1.77	F(3, 155) = 3.04		F(6, 149) = 0.46	F(3, 152) = 0.83	
Prob>F	0.014	0.0012		0.83	0.48		0.109	0.03		0.86	0.48	

Table 2. LOGIT Group statistics of pre- and post-semester political compass scores

Table 2: Logit	Model 5-initial	Model 5-final	Left-Right Dot shift	Model 6-initial	Model 6-final	Left-Right Dot shift	Model 7-initial	Model 7-final	Up-Down Dot shift	Model 8-initial	Model 8-final	Up-Down Dot shift
	Dep Var			Dep Var			Dep Var			Dep Var		
	LR-diff			LR-elastic			LA-diff			LA-elastic		
Independent Variable	Coef. (t-stat)						Coef. (t-stat)					
Gender	-.39 (-.84) ^{+40%}	-.45 (-.98) ^{+33%}	Left	-.25 (-.54)			-.36 (-.81) ^{+42%}	-.402 (-.91) ^{+37%}	Down	-.241 (-.53)		
WS-shown	.27 (0.22)			-.18 (-.14)			.42 (.37)			.308 (0.27)		
Inclass4film	4.5 (2.23)**	4.75 (3.73)***	Right	5.01 (2.35)**	4.63 (3.64)***	Right	2.55 (1.75)*	3.027 (4.20)***	Up	2.628 (1.81)**	2.992 (4.11)***	Up
Attendance	1.17 (.54)			.84 (0.39)	1.15 (0.83) ^{+41%}	Right	1.0998 (.54)			.944 (0.47)		
US Citizen	1.86 (.71) ^{+48%}			1.89 (.68) ^{+49%}			1.11 (.64) ^{+52%}			1.06 (0.60) ^{+55%}	1.208 (0.69) ^{+49%}	Up
Ethnicity	-1.84 (-.71) ⁺⁴⁸¹⁵			-2.01 (-.73) ^{+47%}			-1.026 (-.59) ^{+56%}			-1.125 (-.63) ^{+53%}	-1.234 (-.07) ^{+49%}	Down
No. Obs	159	159		155	155		159	159		156	156	
Pseudo R ²	0.282	0.2758		0.2777	0.2711		0.1929	0.1881		0.1864	0.1830	
χ^2	47.97	46.92		45.29	44.21		32.81	32.00		30.5	29.46	
Prob > χ^2	0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00	

In all the logit models (5–8), the χ^2 test falls in the region of ‘do not reject Ho’; so one might say that the independent variables are statistically independent.¹¹ Therefore, using a t-statistic with ‘+40%’ (as I did on the Gender Variable in Model 5) is a viable way of showing, that while the t-statistic indicates the coefficient is not statistically different from zero, it does have an influence on the student’s Left-Right economic and political perceptions.

The results of the pre- and post-semester political compass matrices are illustrated below in Figure 2.a and 2.b, respectively. As shown, overall, students moved toward more political and economic freedom. Determining the underlying influences behind the down-and-right movement of matrix dots, which reflects the changing perceptions about free markets that students hold throughout the semester, is a more complicated matter.

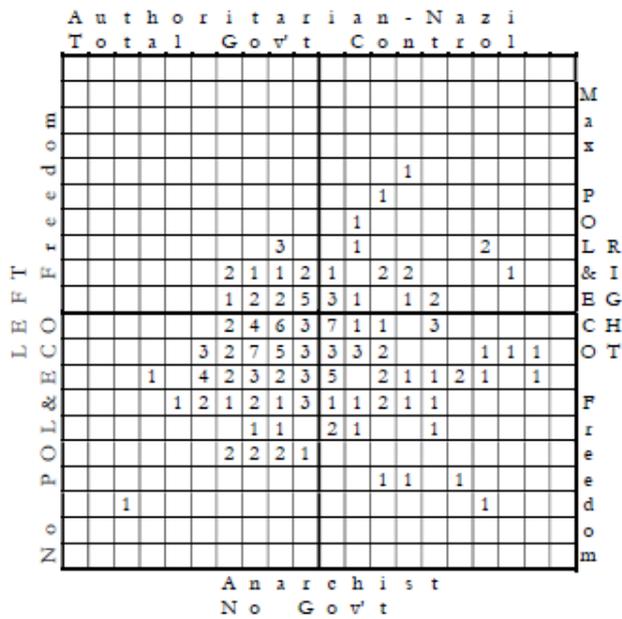


Figure 2a. Pre-Semester Matrices: 158obs

5. Conclusions

The purpose of this particular preliminary research is to determine if movies and video clips with heroes and villains influence students’ perception that capitalism is a better economic and political system for them than socialism. Millennial students, often defined as the generation of people born after 1995, have an increasingly different perspective on the world than people born more than five decades ago. Captain America, to millennial students, is a hero—not propaganda. Youtube video clips of police riots in Caracas, Venezuela isn’t propaganda—students see that it’s the real live result of socialist policies in an economy, and it helps them to either stop listening to their socialist professors’ voices, or at the very least, assists them in hearing something else of value. The movement of a student's dot on a political compass matrix is less propaganda than it is revealing to the student that their thoughts matter and are important.

Clearly using movies and video clips of American heroes are tools one can use to teach students about the vagaries between socialism and capitalism.

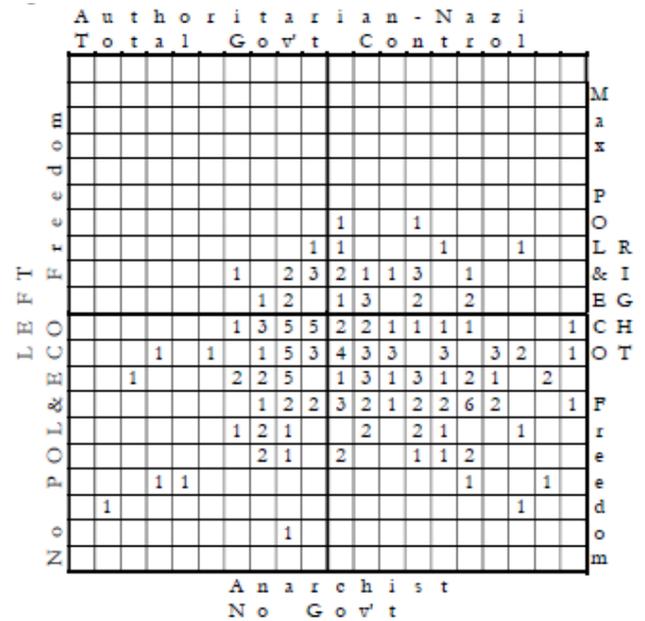


Figure 2b. Post-Semester Matrices: 158obs

¹¹ The Chi-square test (χ^2) measures the independence of the independent variables by measuring the relative difference between the expected and observed frequencies. Doane & Seward [10]

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