

WAR BETWEEN RUSSIA AND UKRAINE AND HOPE TO THE PEACE

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ABSTRACT

This paper is concerned with how the struggle for existence between Russia and Ukraine would be end, for the result must be vain for the both countries as well as all the rest world. The theoretical outcome by the present study infers that either Russia or Ukraine must be beaten out by the opponent completely, and being governed by the country for the time being only in keeping the high possibility of the outbreak another struggles soon: The relation between Russia and Ukraine is always unstable over the generation by generation. It is therefore necessary for us all to seek for the way to eternal peace to avoid such a foolish war. It is inferred that there exists some hope to peace if the unification theory is applied to the war between Russia and Ukraine to overcome the mysteriousness and irrationality of the both presidents, though the full discussion on the way how to apply the unification theory to settle down any conflict is left for the future.

Keywords: War, Unification theory, Peace, Struggle for existence, Differential equation

INTRODUCTION

The unification theory (Moon, 2006) is a powerful key capable of solving any conflict in our society, no matter how difficult it may be. When this theory is applied to society, various social problems can be settled down and realistically solved in the straight forward manner. In particular, when it is applied to criticizing communist theory (Lee, 1997). together with the theory of evolution, all the contradictions of communist theory and Darwin's evolution theory are shed light brightly, and the necessary counter proposals can be established rationally.

The unification theory presents a completely novel view of our life, the world, the universe, and even God's work in history. It presents a holistic and comprehensive view of nature as a counterproposal to modern biology. The unification theory is also a principle of integration that can bring different religious doctrines and various philosophies into unity, while in keeping each of the diverse characteristics. This article is an

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extension of our recent paper entitled ‘Origin of war and way to eternal peace’ (Nakagawa, 2022) so refer the relevant literatures that are useful for the mathematical modelling the war at the end of this forgoing paper.

The main purpose of the present paper is to model the war using the differential equations and solve the war between Russia and Ukraine analytically, together with to infer how to settle down the war in terms of the unification theory.

Mathematical Modelling the War

The ongoing war between Russia and Ukraine is modelled in terms of one set of two differential equations. Let us assume that this war may be represented by so-called logistic model: At first, introducing the war potentials for Russia and Ukraine as x and y , respectively, we obtain that

$$\text{when } y=0, \quad dx/dt = x(a - bx), \quad (1)$$

while

$$\text{when } x=0, \quad dy/dt = y(c - dy) \quad (2)$$

Moreover, assume that the progress speed of the war potential for Russia dx/dt is retarded by the Ukraine’s war potential y . Because the progress speed of the war potential for Ukraine dy/dt must be followed similarly to dx/dt , we have a set of the two differential equations governing the war between Russia and Ukraine.

$$dx/dt = x(a - bx - my), \quad (3)$$

$$dy/dt = y(c - dy - nx), \quad (4)$$

Where $a, b, c, d, m,$ and n are positive constants. It may be immediately evident that the set of the two differential equations (3) and (4) have no analytical solution due to non-linear terms. It is, therefore, necessary that at this stage a novel approach must be adopted for the deeper understanding the war. Thus, alternatively let us obtain the critical points that would shed some light for us. In order to get critical points, set $dx/dt=dy/dt =0$, and as the results we have the following four points $(0,0), (0, c/d), (a/b,0)$ and $[(ad-cm)/(bd-mn), (cb-an)/ (bd-mn)]$.

It may be already evident that these points can be located at any quadrant on the phase plane, for the choice of these values have no limitation.

At this stage, for simplicity in the analyses, confine the following limited case

as,

$$a=c, b=d \text{ as well as } n > m \quad (5)$$

This corresponds to the case that Russia x takes the advantage against Ukraine y . Under these conditions, (3) and (4) can be simplified significantly as

$$dx/dt = x(a - bx - my) \quad (6)$$

$$dy/dt = y(a - by - nx) \quad (7)$$

with different critical points as $(0,0)$, $(0,a/b)$, $(a/b,0)$ and

$$[a(m - b)/(mn - b^2), a(n - b)/(mn - b^2)] \quad (8)$$

It may be worth noting that the fourth critical point is located at the first quadrant on the phase plane. Moreover, the ratio of (6) and (7) provides us

$$dy/dx = y(a - by - nx)/x(a - bx - my) \quad (9)$$

Referring to (9), it may be interesting to find out the following facts,

$$(a) \text{ on } y=0 \text{ and } bx + nx = a, dy/dx = 0 \quad (10)$$

$$(b) \text{ on } x=0 \text{ and } by + ny = a, dy/dx = \pm\infty \quad (11)$$

$$\text{In particular, referring (6) for } x>0, dx/dt > 0 \text{ when } a > bx+my \quad (12)$$

$$\text{while } dx/dt < 0 \text{ when } a < bx+my \quad (13)$$

Let us draw the lines on which dy/dx takes the value of 0 or $\pm\infty$, where $a=6$, $b=2$, $m=3$, and $n=4$. **Figure 1** draws these lines.

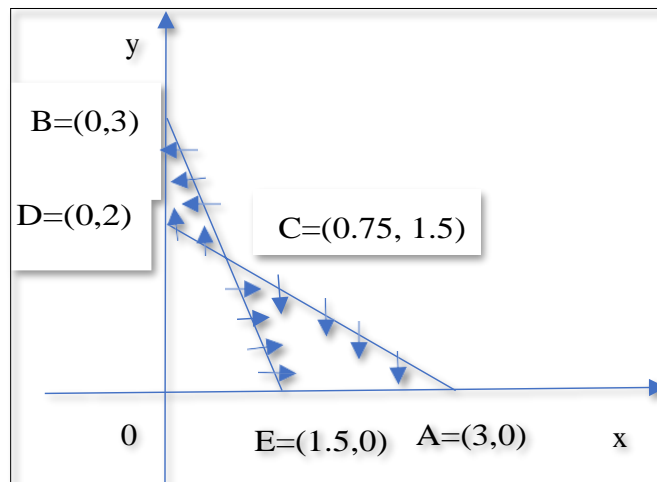


Figure 1. Two lines on which $dy/dx=0$ or $\pm\infty$.

On line $B-E$, $dy/dx=0$, while on line $D-A$, $dy/dx=\pm\infty$.

It may be evident that the equilibrium point C is unstable, though it is no more than the fourth critical point. On the other hand, at the other two critical points $B(0,3)$ and $A(3,0)$, the military potentials x , and y are zero, respectively. This means that once Russia invades the east part of Ukraine with an overwhelming majority with weapons, Ukraine will be governed by Russia completely. It is, however, interesting to note the fact that even the military potential x of Russia is higher than that y of Ukraine,

there remain some possibility that Russia will be beaten by Ukraine, as clearly depicted in **Figure 2**. It may be considered that such an interesting situation would appear if the surrounding countries belonging NATO and USA support Ukraine by sending soldiers and weapons.

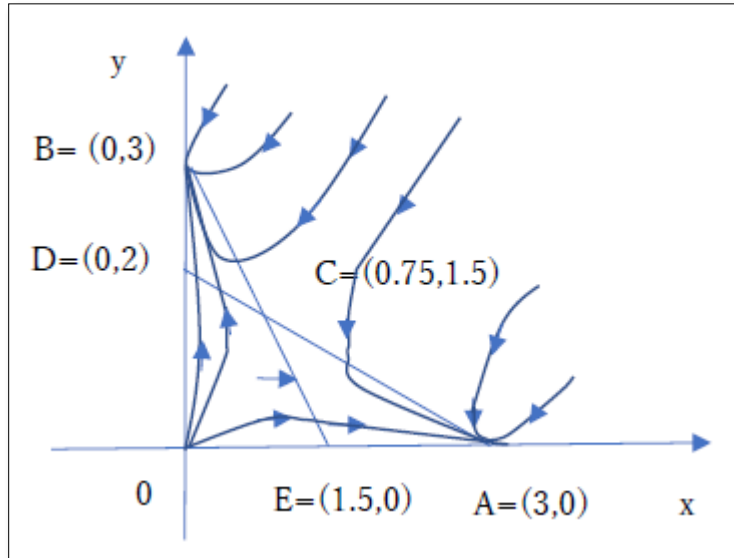


Figure 2. Sketch of the track for the roots.

Of course, it is certain that the situation must be completely reversed if the different premise $m > n$ is introduced, for Ukraine takes the advantage against Russia in this case.

Finally, by adopting the further analyses around the critical points, it is possible to draw the more informative sketch of the track for the roots, as depicted in **Figure 2**.

DISCUSSION

In this section, how to settle down the war between Russia and Ukraine has been discussed on the basis of the unification theory proposed by Moon, (1993).

The communist asserts that after the revolution, communist society, which is the classless kingdom of freedom, will be realized. The unification theory asserts that the original ideal world of creation, namely, the kingdom of Heaven on the earth, where all humankind will become one family, will be realized by receiving the Messiah as true parents of humankind.

It seems for us that because the Christian is rather mysterious and irrational, she/he hardly has any persuasive power today. It simply asserts that God promotes His providence in history. Since concrete laws of history are not presented, however, it is not at all clear how He conducts His providence. It is also hard to understand that in the Last Days those people represented by the goats on the left side will receive eternal punishment.

Further, it does not clarify what the new heaven and the new earth will concretely be like.

The communist being compared with the Christian, seems more realistic and rational, and therefore because it carries more persuasive, she/he has captivated the minds of many intellectual young people. At its height, nearly half the world came to be ruled under communism. Today, however, it has become clear that communism society would not be the kingdom of freedom nor an affluent society, but rather its opposite. Thus, the idea of a communism society has been already perished from the earth. Originally, as Toynbee (1889~1975) said, communism appeared as an accusation or a prosecution from Satan's side, because Christianity failed to fulfill its mission and suffered degeneration. That is why the communist has the ceaseless appearance along with Christian who has taken at the turned upside down position.

The unification theory has emerged as an elaboration of the Christianity, yet it is presented as a view that overcomes the Christian view of mysteriousness and irrationality. It is a view of history that can successfully overcome the communist accusation against Christianity. Any Christian asserts that the people in the kingdom of the world who obeyed Satan will receive eternal punishment. The communist asserts that the proletariat will overthrow the bourgeoisie by violent means. Yet, the unification theorist asserts that the good side induce the evil side naturally to surrender by means of true affectionate love and eventually will save all humankind by restoring the evil side to the good side. In the ideal world all humankind with no exception must become happy. That must be guaranteed only by the unification theory.

The communist attacks the Christian as being mere superstition or myth, and boasts, on the other hand, that the communism theory itself is scientific, with rational laws. Nevertheless, the laws presented by the communism theory, have turned out to be nothing but arbitrary, pseudo laws, advocated for the sole purpose of rationalizing revolution. In contrast, the laws presented by the unification theory are genuine laws, fully supported by historical facts.

Finally, let us seek for the glorious hope to settle down the war between Russia and Ukraine in terms of Murray's solution (Gottman et al. 2005), as expressed by

$$W_{t+1} = w + r_w W_t + I_{HW}(H_t), \quad (14)$$

Where W_{t+1} and W_t denotes whether Ukraine president's next and current remarks at $(t+1)$ and t , respectively, are positive or negative. Ukraine president's response would be determined by w and r_w , where w is Ukraine's president feeling and r_w is another feeling while Ukraine's president is sharing time with Russia president. In addition, $I_{HW}(H_t)$ changes W_{t+1} in such a way that Russian president remark and action H_t strongly affects W_{t+1} through $I_{HW}(H_t)$.

On the other hand, the relation for Russian president may be formed similarly to Ukraine president as follow,

$$H_{t+1} = h + r_H H_t + I_{WH}(W_t), \quad (15)$$

where H_{t+1} and H_t means whether Russian president's next and current remarks at $(t+1)$ and t , respectively, are positive or negative. Russia president's response would be determined by h and r_H , where h is Russia's president feeling and r_H is another feeling while Russia president is sharing time with Ukraine president. In addition, $I_{WH}(W_t)$ changes H_{t+1} in such a way that Ukraine president remark and action W_t strongly affects H_{t+1} through $I_{WH}(W_t)$.

It may be interesting to note here that these equations (14) and (15) may model those for struggle between one single couple consisting of wife and husband for example: In another words, the situation between one couple conflicting each other is mathematically the same to the two nations, Russia and Ukraine, opposing in terms of even the most advanced weapons including nuclear bombs.

In the set of the two equations (14) and (15), the decisive term either $I_{HW}(H_t)$ or $I_{WH}(W_t)$ plays acritical role in any conflict: Take for example, let us consider $I_{HW}(H_t)$.

Referring to **Figure 3**, consider that if the value of I_{HW} is greater than 0, Russia president provides Ukraine president positive impact, while if its value is below 0, Russia president gives Ukraine president negative one. It is therefore expected that under the condition that I_{HW} is positive, Russia president can push Ukraine president's feeling upwards by saying a favorable friendly word to Ukraine president easily. On the other hand, while I_{HW} is already negative, if Russia president says unpleasant words to Ukraine president for example, it may happen that Ukraine president will lose her/his temper. In **Figure 3**, it is drawn that the critical value to the negative direction is greater than that to the positive direction, but actually in the majority cases the opposite setting for the critical values motivates the ordinally couples lives more refined if their conflicts are managed carefully. These results infer us that we may be required incessantly to solve the tiny problems in the foreign affairs each by each with the utmost delicacy. On this regard, the true affectionate love against each other between Russia and Ukraine will save all of the people in the both countries by restoring the evil persons to the good ones according to the unification theory. Certainly, it is desirable for us to prepare for the outstanding delegates to settle down the difficult international affairs between Russia and Ukraine.

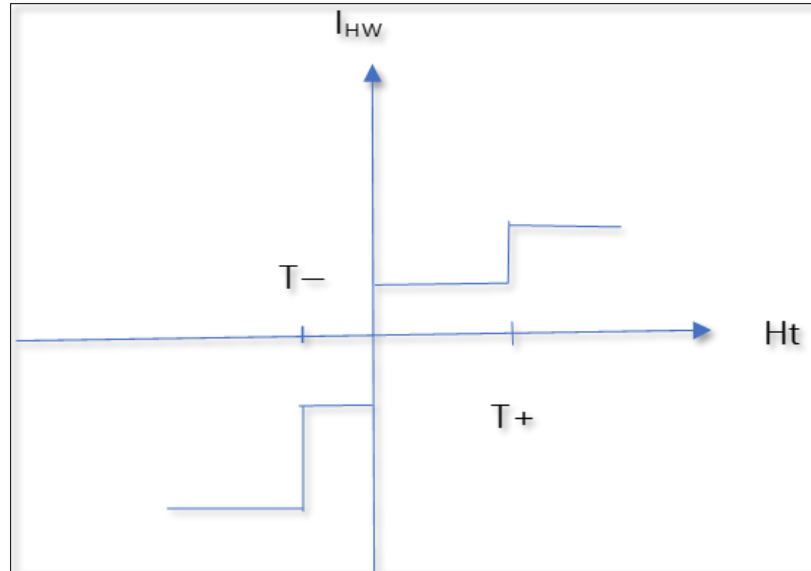


Figure 3. I_{HW} against H_t .
 T_+ is the positive threshold; T_- is the negative threshold.

CONCLUSION

In this section, new knowledges and insights obtained through the present study have been summarized in brief.

1. The ongoing war between Russia and Ukraine is modelled in terms of one set of two differential equations.

2. It is found that once Russia invades the east part of Ukraine with an overwhelming majority with weapons, Ukraine will be governed by Russia completely. It is, however, interesting to note the fact that even the military potential of Russia is higher than that of Ukraine, there remain some possibility that Russia will be beaten by Ukraine.

3. A concrete way how to settle down the war between Russia and Ukraine, together with social problems that seem to be difficult to solve, has been discovered on the basis of the unification theory proposed by Moon.

4. The true affectionate love against each other between Russia and Ukraine must save all of the people in the both countries by restoring the evil persons to the good ones.

5. Gottman et. al.'s model clearly suggests us that we are required incessantly to solve the tiny problems in the domestic as well as foreign affairs day by day with the utmost delicacy.

Finally, a full detailed discussion on the way how to apply the unification theory to settle down any conflict in our society is left for the future.

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