Do Cyber Capabilities and Cyber Power Incentivize International Cooperation?

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Abstract

This paper explores a research question about whether defensive and offensive cyber security power and the capabilities to exercise the power influence the incentives of nation-states to participate in bilateral and multilateral cooperation (BMC) through formal and informal agreements, alliances, and norms. Drawing from international relations in general and structural realism in particular, three hypotheses are presented for assessing the research question empirically: (i) increasing cyber capability lessens the incentives for BMC; (ii) actively demonstrating and exerting cyber power decreases the willingness for BMC; and (iii) small states prefer BMC for cyber security and politics thereto. According to a cross-country dataset of 29 countries, all three hypotheses are rejected. Although presenting a “negative result” with respect to the research question, the accompanying discussion contributes to the state-centric cyber security research in international relations and political science.

Keywords: cyber security, cyber power index, international relations, structural realism, multilateralism, comparative research, small-N, negative result, food for thought

Introduction

This paper explores a research question about whether “cyber capabilities” and “cyber power”, in particular, incentivize nation-states to participate in bilateral and multilateral cooperation. The exploration is carried out with a “cross-country” empirical analysis operating at a “macro-political” level. In other words, the unit
of analysis is a whole country. This clarification opens a Pandora’s box of well-known problems that should be acknowledged before proceeding any further. The macro-political level entails comparisons across “the most complicated set of social units we know, total societies; and generalizations do not come easily” (Verba, 1967, p. 113). There are only a limited number of countries in the world. Thus, the “population” is limited in statistical terms, but, in more qualitative terms, even a comparison across two, three, or a few countries is often challenging. So, to clear the muddy waters: the paper does not attempt to generalize. Nor are causal claims made. The research approach is exploratory, and the empirical dataset examined is based on different “indices” on “cyber security”.

Macro-political indices are notoriously difficult to construct. Why? To understand the question, one only has to think about the two words: macro and political. One thought arising immediately is that quantifying a macro-level index for a whole country is often a political act. When politics are involved, uncertainty increases. Mistakes happen, and mistakes are more prone to happen when operating with concepts that cannot be defined and quantified rigorously. Democracy is among these concepts, rule of law is among these concepts, and cyber power is among these concepts. All these concepts are difficult to define and quantify. Depending on a context, indicators can be viewed as facts, proxies, predictors, diagnoses, targets for reform, or conceptual frameworks, and depending on a given viewpoint, these are affected by stakeholder incentives, comparability issues across countries, reporting of uncertainty, and other problems (Botero et al., 2011). This alloy makes it easy to mount attacks against comparative cross-country research. However, much of the conventional criticism is almost universal criticism with which many empirical sciences can be attacked (Swank, 2007). Despite the problems and the criticism, macro-political indices can be constructed. Mistakes are corrected. Macro-political indices are also needed for policy-making. In fact, there are many international organizations, such as the Organisation for Economic Co-operation and Development (OECD), devoted to cross-country data.

Old concepts are backed by mature measurement methodologies. Although these often amount to different checklists, the lists are still encompassing and increasingly sharp and well-assembled. But cyber power is not a mature concept. Nor is cyber security. It is therefore understandable that there were no macro-political indices for these concepts until recently. This lack has contributed to a lack of comparative cross-country research. Although there are some existing empirical studies (Holt et al., 2016; Makridis and Smeets, 2019; Mezzour et al., 2018), these are outliers even when compared to closely related research domains, such as cross-country analysis of telecommunications, Internet adoption, and similar topics. Given recent improvements with indices, however, the situation is likely
to change. This paper contributes to the nurturing of such a potential change.

Though, there is still even a debate on what cyber security actually is. To provide a high-level overview of the terminology involved, cyber security is often framed with the domain on which it operates (“cyber space”), offensive and protective actions in this space, and the consequences from these actions (Rackevičienė and Mockienė, 2020). This high-level terminological overview serves its purpose: the cross-country focus is on the offensive capabilities and actions on one hand, and the protective measures adopted by nation-states on the other. The consequences are asserted to manifest themselves as increased desire for international cooperation—or lack thereof. This focus places the paper firmly into a so-called state-centric domain of cyber security research (cf. Eriksson et al., 2009; Ruohonen, 2020). The comparative macro-political approach frames the paper’s scope further; the word politics underlines the presence of cyber security policies. Among other things, such as economic realities, these policies are affected by technology, science, and international (power) politics as well as domestic politics (Dunn Cavelty and Wenger, 2019). This complex constellation defines the concept of “cyber security politics”. Domestically, there are polities within which such politics are made, but international cyber security politics have long been in dire straits. Despite many initiatives, both laws and norms are immature at best in the (international) cyber space. Although some of the initiatives have matured into international treaties, such as the Budapest Convention, many of the initiatives have been a “mess in New York” (Maurer, 2020, p. 298), composed of “endless talkshops” (Corfield, 2020a) rather than genuine international treaty negotiations. This international chaos provides the motivation to examine the question whether offensive and protective cyber actions incentivize cooperation. The concept of “cyber power” can be defined via these actions as the exercise, maintenance, or demonstration of power. The “cyber capability” for these actions originates from the combination of offensive and protective potential, economy, technology, science, and the domestic and international cyber security politics. With these clarifications, the hypotheses for the empirical exploration can be stated.

Hypotheses

The preceding discussion about various “cyber concepts” aligns with classical notions and theories in international relations. When keeping in mind the state-centric straitjacket, Waltz’s (1979, pp. 88–89) famous theory seems pertinent as a starting point: domestic politics occur in a centralized and hierarchical polity, whereas international politics are organized anarchically without a common polity. International relations do not differ from the cyber space in this regard. There is no
“world government” in either domain. Also other elements in the Waltz’s theory seem applicable as a heuristic driver toward developing hypotheses. In particular, his notion of “structure” in international relations—despite the anarchy (here, for helpful reading, see Lechner 2017), provides a decent analytical vehicle. It has three layers: ordering principles (e.g., to move from an anarchic to a hierarchical order changes a system’s structure), functional differentiation between units, and the distribution of capabilities (Waltz, 1979, pp. 100–101). Changes in the distribution of capabilities may change both anarchic and hierarchical systems; however, changes in the functional differentiation cannot change an anarchic system because there is no differentiation to begin with. How these structural layers can be used to elaborate recent developments in the cyber space and cyber security politics?

To begin the elaboration, it must be assumed that a change in the ordering principles is occurring; otherwise the research question would not make sense. Having locked this assumption, it makes sense to start from the functional differentiation in the cyber space, and particularly in the Internet and its governance. For a long time, the governance of the Internet was highly functionally differentiated. And it was never an anarchy. The governance of the Internet mainly revolved around different loosely organized, non-state networks, standardization organizations, committees, non-governmental organizations, and the like, composed of engineers, scientists, hobbyists, and the like. These governance bodies were—and still are—characteristically non-state, even though they often received funding from governments and companies, and were under their loose oversight. In fact, the whole concept of governance is often understood to mean governing without the necessity of a government (Rhodes, 1996; Wachhaus, 2014). In the Internet governance literature this type of governing became known as a multi-stakeholder governance (Strickling and Hill, 2017). However, cracks started to show in this type of governance model as the 2010s progressed. While it was still easy to reject state-centric explanations about a decade ago (Mueller and Chango, 2008), in the late 2010s the arguments against state-centric governance had turned defensive and even pessimistic (Mueller, 2019). The “militarization” of the cyber space (Deibert, 2013) was one but not the only reason. Also the “structure” of the Internet centralized to the hands of a few large multinational companies.

Again, how to interpret these changes against Waltz’s basic theoretical premises? At the risk of an overstatement, it could be said that states and capitalism brought the anarchy of international relations to the cyber space. And with anarchy came the conventional speculations. Although the Internet has so far shown remarkable resilience, discussions about hegemonic power started to appear in the academic literature (Rovner and Moore, 2017). In 2020 pundits and commentators speculated openly about the apparent technology-related international power
politics and the potential splintering of the Internet and its governance into different regional camps (Kleinwächter, 2020). At the same time, offensive cyber actions continued unabated in the international anarchy. These developments awaken the Waltz’s theory. Thus, to continue with the theoretical premises: states at minimum seek their self-preservation and at maximum seek a hegemonic position through their domestic polities (i.e., in the present context, by increasing their cyber capabilities and international endeavors (e.g., by creating alliances or weakening the alliances of others), such that a balance of power is achieved only if all states recognize the same rules and play with the same minimum bets (Waltz, 1979, pp. 118–120). While acknowledging the limitations of this simplification (Blachford, 2020), these basic premises of structural realism allow to posit the first hypothesis:

\[ H_1 \text{ Increasing cyber capability decreases willingness for BMC.} \]

Note that the hypothesis is postulated with a negative correlation (i.e., due to the hegemony assumption), although a reverse statement might be equally plausible; increasing cyber capabilities of some states may incentivize other states to form alliances with them, for instance. In contrast to this slight ambiguity, a more direct hypothesis is available by assuming that active demonstration and use of cyber power signal a lack of strong incentives for international cooperation:

\[ H_2 \text{ Demonstrating and exerting cyber power decreases willingness for BMC.} \]

Both \( H_1 \) and \( H_2 \) are exploratory yet still theory-motivated hypotheses. To move toward the actual context, the 2010s was also a period during which different “cyber norms” were actively pursued. For the present purposes, such norms can be defined as “non-binding conventions or a standard of appropriate behavior about how a class of actors should act”, such that, “over time and when they provide order, stability, and security, they are often codified into law” (Ryan, 2018, p. 335). Partially due to the anarchy, whether perceived or real, much of the intellectual fervor behind this “norm-building” drew from international relations and military logic (Mueller, 2019). Even today—for some establishments, stakeholders, and pundits, the “hope is that the emergence of a Westphalian cyber-order will bring back the certainty of the Cold War” (Balzacq and Dunn Cavelty, 2016, p. 196). To this end, indeed, it was common in the 2010s to formulate different general principles for appropriate state behavior in the cyber space. For instance, territorial sovereignty should be honored; every state has a right to build cyber capabilities; criminal law should apply; all states have a right to self-defense; and so forth (Tikk, 2011). Many analogous general principles were codified into the so-called Tallinn Manual, released in 2013 and later updated in 2017 (for background see von Heinegg 2014). Alongside such informal guidebooks came also more general theories such as deterrence; the idea that escalating cyber conflicts between
states could be mitigated with international norms that, at minimum, make cyber attacks politically costly (Taddeo, 2017). Although it remains unclear whether deterrence tactics work in the cyber space (Corfield, 2020b; Nye, 2017), many states have recently adopted these into their cyber security strategies (Olejnik, 2020), some of which may also include an aggressive “strike-back” deterrence variant.

To some degree, the aggressive deterrence strategies and other offensive tactics have had a corrosive effect upon shared cyber norms and their codification into international and domestic laws (Tikk-Ringas, 2015). In intentional power politics small states have usually the most to lose, and thus it is not surprising that cyber norms have been pushed forward particularly by small states. Although global generalizations are problematic at best (Solar, 2020), together with non-governmental organizations and other actors, small states have generally acted as so-called “norm entrepreneurs” by trying to influence the international cyber security policy discourse through their normative power (Adamson and Homberger, 2019). This “norm persuasion” strategy is analogous to that often used by the European Union (EU), with varying degrees of success (Chan, 2020). With regard to normative power and small states in general, Waltz is surprisingly silent. Basically he merely asserts vaguely that only “by merging and losing their political identities can middle states become superpowers” (Waltz, 1979, p. 182). While the reference to the late 1970s Europe is clear but implicit, the roles played by small states provide a clear hypothesis for a cross-country analysis. Given the traditional alliance options for small states (Amstrup, 1976), it can be expected that:

H₃ Small states prefer BMC for cyber security and international politics thereto.

The small but visible steps in the normative ordering principles have been accompanied by efforts at the international political arenas, including the United Nations (UN) in particular. The specific UN playgrounds have been the International Telecommunication Union (ITU) and the so-called Group of Governmental Experts (UNGGE) on Developments in the Field of Information and Telecommunications in the Context of International Security. While the UNGGE has been able to agree that international law applies to the cyber space, otherwise disagreements have been widespread. Not only have there been conflicts about definitions and scope, but the negotiations have also been affected by hidden agendas and a disconnect from those who conduct offensive cyber operations (Maurer, 2020; Urgessa, 2020). Economic and trade issues have stirred the pot further (Pomfret, 2020). Partially due to these deadlocks, other governance forums have gained more traction, including those orchestrated by companies (van Horenbeeck, 2018). All in all, it can be summarized that there is at least a normative push toward a (horizontal) hierarchical order in the international cyber space. At the same time,
cyber capabilities continue to grow and vary between states, and cyber power is actively maintained, exercised, and demonstrated. It can be left to a reader to assess whether this state of international cyber security affairs is an anarchy.

Data and Methods

The empirical material is based on the so-called “cyber power index” (CPI) dataset released by associates at the Harvard University (Voo et al., 2020a). Although ITU (2019) has released a comparable index, which has also been used in previous research (Hansel and Ruhnke, 2017; Makridis and Smeets, 2019), the CPI dataset has a couple of benefits speaking for itself. As was already remarked, reliability and validity often remain issues for macro-political indices, and the CPI dataset is not an exception in this regard. However, first, the dataset is accompanied with a fairly detailed codebook containing mostly complete references to the primary sources from which the indices have been constructed. These sources seem reasonable. Unlike ITU, second, the CPI dataset provides the individual variables from which the composite “cyber power index” has been constructed. Originally, the theoretical idea behind the dataset was to correlate the “intent” to use cyber power against the capability to exercise it (Voo et al., 2020b). But as the preceding discussion has tried to explicitly argue and implicitly persuade, such a crude analysis does not really do honor to the potential offered by the CPI dataset.

Thus, two separate dependent variables are used to proxy BMC. The first is the amount and quality of bilateral and multilateral cooperation agreements in the cyber space. These include both formal agreements, including memberships in regional and global organizations, and informal arrangements, such as joint declarations and cooperation frameworks. The scale of this dependent variable is continuous, higher values indicating more agreements and more formality. The second dependent variable proxies a country’s endorsement of cyber norms. It is coded from eleven criteria that mostly address a country’s participation in international organizations (Voo et al., 2020a). In addition to ITU’s committees and the UNGGE, these organizations include both “talkshops”, such as the Internet Governance Forum (IGF) and the Global Forum for Cyber Expertise (GFCE), and more technical cooperation avenues, such as the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC). In addition, national cyber security strategies and related commitments are accounted for in the coding. The range of this variable is scaled to the unit interval.

The CPI dataset contains information about 29 countries. By implication, the empirical analysis pursued falls to the so-called “small-N” category of comparative research; there are only a few observations but a large number of variables.
| Table 1: Independent Variables |
|-------------------------------|
| **A. Cyber capability (H₁)**  |
| **CPI variables** | **Description** |
| militarystrategy | A national cyber strategy detailing defensive and (or) offensive military capabilities in the cyber space, ranked by consistency of the strategy. |
| cybermilpeople | Number of staff in military cyber forces. |
| cybercommand | The presence of a national, centralized cyber command, ranked by years since establishment. |
| **B. Cyber power (H₂)** |
| **CPI variables** | **Description** |
| stateattack | Number of publicly attributed, notable, and sophisticated state-sponsored cyber attacks. |
| attacksurveillance | Defined analogously to the stateattack variable, but with a surveillance objective. |
| attackcontrol | Like stateattack, but with a control objective. |
| attackintelligence | Ibid., but with an intelligence objective. |
| attackcommercial | Ibid., but with a commercial objective. |
| attackoffense | Ibid., but with an offensive objective. |
| intentoffense | A variable with a [0, 1] range: based on seven questions asking whether a country’s cyber military planning, strategy documents, etc. acknowledge the capability for destructive cyber operations, including the destroying or disabling of adversaries’ infrastructures and capabilities. |
| **C. Small states (H₃)** |
| **CPI variables** | **Description** |
| – | A dummy variable scoring one for Estonia, Lithuania, Singapore, Sweden, and Switzerland. |
The usual problems follow. Regarding these problems, particularly problematic is the operationalization of cyber capabilities used to postulate H$_1$. As was already discussed, these capabilities originate from the capabilities of “total societies” (Verba, 1967), from education to technology and economy. How to quantify something like science? Although there are no right answers to such a question (and many would argue that the question is absurd to begin with), the CPI dataset contains various generic indices, such as the prevalence of e-commerce, patent applications, and Internet adoption. Given the importance of public-private partnerships for cyber security (Ruohonen, 2020), indices are available also for the number of cyber security and surveillance companies. However, the small-N constraints force a more limited but sharper focus. Thus, the capabilities are explicitly restricted to the military cyber capabilities listed in Table 1. Given the wording used for H$_2$, the concept of cyber power is likewise framed to state-sponsored cyber attacks and to the demonstration of such power through publicly available military strategies. Finally, there is again no correct way to define small states (H$_3$). Nevertheless, based on a subjective evaluation, five countries are classified as small states; these include also countries whose national security strategies have long relied on neutrality and the avoidance of formal military alliances.

As for computation and methods, basic statistical techniques suffice to examine the three hypotheses postulated. The principal components analysis (PCA) is used to construct the composite cyber capability and cyber power variables in Table 1. Product-moment correlations and the ordinary least squares (OLS) regression are used to assess their linear relation to the BMC variables constructed.

**Results**

The variance between the 29 countries is large with respect to their commitments to BMC. As can be seen from Fig. 1, India and the United States stand out as outliers in terms of bilateral and multilateral agreements and their formality. Regarding the latter country, the result is hardly unexpected (Solar, 2020). The United States ranks high also in terms of cyber norms together with Japan and the three largest European countries. There is a group of five countries that appear to have a lesser interest in the norm-building activities. Among them is Lithuania. Even though Estonia ranks fairly high in both BMC variables, a negative answer to H$_3$ therefore seems plausible even without statistical computing. To some extent, these cross-country observations support the arguments that many states still struggle to integrate their cyber security strategies into their national (security) strategies (Dunn Cavelty and Wenger, 2019). These struggles are not merely about rational national strategies: cyber security politics are strongly present in
many countries; there are many “swing states” that have not decided on their vision for the future of the cyber space and its security (Eldem, 2019). In any case, the variance of both BMC variables is large enough for $H_1$ and $H_2$ to be plausible.

A prerequisite for PCA and other related dimension reduction techniques is that the target variables are correlated with each other (Seber, 1984). This assumption provides a good way to start the empirical analysis. Thus, according to Bartlett’s (1951) classical $\chi^2$-based test the null hypothesis that a sample correlation matrix equals an identity matrix is rejected for the six cyber power variables ($p < 0.001$) but not for the three cyber capability variables ($p \simeq 0.094$). This observation hints that the composite cyber capability variable might have problems with its internal consistency. However, according to the PCA results, the first principal component accounts for about 78% of the total variance among the three
cyber capability variables. This is a reasonable share—and it is actually higher than for the six cyber power variables (71%). Therefore, the scores from the first principal components can be reasonably used to examine Hypotheses H₁ and H₂.

Table 2: Correlations (Pearson; * ↦ p < 0.05, two-sided)

|      | 1. | 2. | 3. | 4. |
|------|----|----|----|----|
| 1. Agreements |    |    |    |    |
| 2. Norms       | 0.42* |    |    |    |
| 3. Capability  | −0.32 | −0.48* |    |    |
| 4. Power       | −0.08 | 0.12 | −0.32 |    |
| 5. Small states| 0.04 | −0.06 | 0.13 | −0.09 |

Table 3: Regression Results (OLS)

| Variable  | Agreements (R² = 0.139) | Norms (R² = 0.229) |
|-----------|-------------------------|---------------------|
|           | Coef. | p-value | Coef. | p-value |
| Capability| −0.003 | 0.062 | < 0.001 | 0.015 |
| Power     | −0.444 | 0.321 | −0.001 | 0.848 |
| Small states| −0.222 | 0.981 | −0.001 | 0.991 |

Table 4: Auxiliary Regression Results (OLS)

| CPI variable | Agreements (R² = 0.243) | Norms (R² = 0.582) |
|--------------|-------------------------|---------------------|
|              | Coef. | p-value | Coef. | p-value |
| scorecapabilities | 0.989 | 0.028 | 0.009 | 0.003 |
| scoreintent | −12.314 | 0.653 | 0.186 | 0.263 |

The correlations between the principal component scores and the two BMC variables are shown in Table 2. Although the coefficients are small in magnitude for the cyber power composite, the cyber capability PCA-variable correlates negatively with both the BMC agreements and cyber norms. For the latter, the correlation coefficient is also statistically significant at the conventional threshold. These observations are in accordance with the prior expectation stated in the form of H₁.

However, the OLS regression results in Table 3 bring a dose of skepticism. (The intercept is included in all regression models but not shown for brevity.) Although the regression coefficient for the capability variable is again statistically significant with respect to cyber norms, its magnitude is extremely small. No other coefficient
attains statistical significance. The coefficients of determination are fairly decent for a three-variable model, but still not particularly remarkable.

As there are more reasons to expect potential operationalization problems than to assume that the statistical computation is faulty, four brief checks are in order about the variables used. The first check is about the European Union, which has had a strong influence upon the domestic cyber security laws in its member states (Carvalho et al., 2020; Tikk-Ringas, 2015), and, to a lesser extent, upon international cyber norms. However, replacing the dummy variable of the small states with a dummy variable for the EU member states does not change the results notably. The second check is similar but with a dummy variable for the members of the North Atlantic Treaty Organization (NATO). Again, this dummy variable is not statistically significant for either BMC variable. The third check is about three large states (or, rather, active and powerful states in the cyber space; China, Russia, and the United States), but, yet again, statistical significance is not present. The fourth and final check is about the original operationalization used in the CPI dataset. Thus, Table 4 shows a simplified regression using only two independent variables: the “intent” to use cyber power and another construction for the capability to exercise it (Voo et al., 2020b). The coefficient for the CPI’s capability score (score\textsubscript{capabilities}) is again statistically significant with respect to cyber norms, but, again, the magnitude of it is small. Although the cyber norm estimates generally yield a decent model ($R^2 \simeq 0.58$), the statistical evidence does not seem convincing enough to outright accept Hypothesis $H_1$. That said, outright rejection seems appropriate for Hypotheses $H_2$ and $H_3$. These conclusions provide interesting material for a brief speculation about the meaning behind the results.

Conclusion

The conclusion is easy to summarize: defensive and offensive cyber power and capabilities for such power seem to neither increase nor decrease the willingness and incentives of nation-states to participate in bilateral and multilateral cooperation efforts on cyber security. The three hypotheses that were contemplated can all be rejected. The statistical evidence falls somewhere between “no evidence of effect” and effect “too small to be worthwhile pursuing” (cf. da Silva 2015) further. Something else drives the incentives. But before any speculation should come a few words about the so-called “negative results”. In general, these are “non-results” that fail to provide a favorable outcome to prior research questions. Such results are increasingly seen as valuable as they provide evidence on what is not yet known; what remains unknown; what does not work. Such results are necessary for the progress and integrity of science (da Silva, 2015; Lehrer et al., 2007).
Against this backdrop, any result depends on the sincerity of researchers, and any negative result can be turned into a “positive result” by insincere researchers merely by rewriting the prior theories and research questions to match the results.

But how persuasive and realistic was the brief theorization along the Waltz’s (1979) classical take on structural realism in international relations? Maybe the prior speculations and hypotheses should have been rewritten after all? Without attempting to participate in the extensive and everlasting debate about the Waltz’s theory in general (see Blachford 2020; Lechner 2017, among many others), it is fairly easy to attack his theory when it comes to cyber security. For years and years on, cyber security has been said to differ from “conventional” security, and there are no reasons to question this anthem, at least not yet. Thus, as an example, the CPI dataset only accounts for things that are controllable by states (Voo et al., 2020b), despite the fact that criticism has long been levered against such state-centric approaches due to their omission of the private sector, civil society, and many related aspects (Mueller, 2019; Ruohonen, 2020). Furthermore, can there even be a Waltzian balance of power in cyber space? To be sure, there are initiatives and programs to govern offensive cyber technologies possessed by states (Herpig, 2018), but does counting these really compare to counting nuclear warheads? But instead of attacking others, perhaps a better option is to accept the negative empirical result presented and contemplate the reasons behind it.

As was remarked, it is impossible to argue that there would not be incentives for BMC, whether in terms of formal cooperation arrangements or cyber norms. Surely all those committees and talkshops were not established for nothing? To better understand the question, it is helpful to distinguish cyber security politics from cyber security politics, the latter referring to the politics engaging with cyber security broadly (Dunn Cavelty and Wenger, 2019), or, rather, to the art of making cyber security politics. From this viewpoint, the failure to establish solid norms and laws in the cyber space would be a failure in politics. And, indeed, for many practitioners, observers, and scholars alike (Corfield, 2020a; Maurer, 2020), failures in diplomacy are the first thing coming to mind from the seemingly never-ending sequence of talkshops. To add a little bit of cynicism, or realism, another thing coming to mind is a facade. The CPI dataset is enough to show that sophisticated state-sponsored cyber attacks continue unabated. At the same time, cyber norms have been partially hijacked to advance aggressive norms such as deterrence. While it is difficult to evaluate the potential for an escalation, this kind of a thinking crosses the Rubicon. With the helpful rereading of Waltz and others by others (Guzzini, 2004), it seems fair to ask whether state actors in the cyber space are maximizing power or whether they are maximizing security, and what are the implications if increases in power do not translate into increases in security?
Finally, it could well be that also the fundamental concepts were defined incorrectly. What if maximizing power is the ultimate goal and power is about the “control over the minds and actions of others”? As for those whose memory still serves them, there were realists long before Waltz, and there were also those who equated political power to psychological power. To be sure, destroying or disabling a digital infrastructure is a grievous act, but does it compare to influencing total societies via psychological means? Who was he who a long time ago stated that political power is about the “control over the minds and actions of others”?

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