

# Journal of Global Analysis

**Waltz's Modesty: Structures Never Tell Us All that We Want to Know - They Tell Us "A Small Number of Big and Important Things"**

**By Hans Rusinek\***

## **Abstract**

This essay classifies Waltz's theory into a functionalist framework, very much like the economic theories it is inspired by. Waltz assumes that structure has primacy not because this is the case, but because it helps to theorize upon. His theory should therefore be measured by its predictive fruitfulness and simplicity, not by the empiric truth of its assumptions. Constructivist criticism, which mistakes Waltz's concept of primacy as ontological primacy and not epistemological, therefore makes a categorical mistake. Anarchy might be what states make of it, but what states make of it is broadly shown by his Theory of International Politics (TIP). By viewing TIP as a functionalist macro-theory it can incorporate constructivist theories as control-theories and creates a powerful synthesis for future research.

**Keywords:** Neorealism, Functionalism, Philosophy of Science, Philosophy of Economics, Economic theory, Constructivism

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## Waltz's Modesty: Structures Never Tell Us All that We Want to Know - They Tell Us "A Small Number of Big and Important Things"<sup>1</sup>

*"We are like sailors who on the open sea must reconstruct their ship but are never able to start afresh from the bottom."*  
**Otto Neurath<sup>2</sup>**

### Introduction

Kenneth Waltz's claim that structures tell us a small number of big things is a very modest summary of his own work, which is considered as a modern classic and the founding stone of neorealist theory. Why is he so modest? This essay claims that the reason for his modesty is the strictly limited scope of this Theory of International Politics (TIP) as a functionalist macro-theory. A restriction that often has been ignored by his critics.

This essay offers an overview of the essence of his theory by focusing on the relationship between agency and structure. A second part sketches the constructivists' counterposition by using Alexander Wendt's theory as a point of reference. It argues that the constructivists' critique misses its point because Waltz theory offers, as the third part will show, not ontological but epistemological explanations. Instead of illustrating a clash between the constructivist and neorealist position, seeing TIP as a functionalist theory gives us the chance for a synthesis. If we see predictive power as our criterion for "good" theories, then such a combination is very promising.

### Waltz's Theory

Waltz's work has to be seen in the context of the rise of rational choice theory. Rational choice theory assumes goal directed behaviour of individuals, who act rationally in the minimal sense that they make ends-means calculations designed to maximize the benefits they expect from certain outcomes.<sup>3</sup>

In Waltz' structural realist theory he combines this neo-utilitarian insight with a structural paradigm, the idea that agents' behaviour must be understood in terms of their larger relationship in an overarching system. This powerful combination of agency-focussed rational choice and systemic structuralism generates the significance of this theory. This amalgam seems paradoxical at first glance but it is not: The system gives incentives and the agents react as utility-maximizers.<sup>4</sup>

Waltz restricts his theory in comparison to classical realism in a twofold way:

He restricts his theory by using this very concept of theory in a much more orthodox sense than his realist ancestors like Hans Morgenthau, whose understanding of a theory was rather loose.<sup>5</sup> Waltz's theory is informed by Karl Popper<sup>6</sup>: He is pursuing law-like propositions, which are interrelated, linked and from which testable hypothesis' can be drawn, which are then falsifiable.

Waltz also narrows the scope of his theory compared to classical realism: His theory is a theory of the international system but not an account of all aspects of International Relations.

Waltz offers a theory about the “nature of international politics”<sup>7</sup>, hence a systemic theory. A theoretical focus purely on the attributes of the units of the international system condemns Waltz as reductionist.<sup>8</sup>

His explanandum is therefore not foreign politics but the general patterns of the system that occur even when the units in the system are changing.<sup>9</sup> Waltz is interested in the international outcomes, clearly a macro-perspective.<sup>10</sup>

His theory assumes, but *not automatically declares*, that the international system is a system of anarchy, that anarchy leads to a self-help system, where states are not necessarily always aggressive but give the highest priority to their own security. This major struggle for security combined with rational choice leads to a balance of power.<sup>11</sup> His theory is explicitly a theory of the structure of the international system<sup>12</sup> with the concept of a balance of power at its heart. States that do not follow the imperative of balancing each other, i.e. by employing their agency against the structure, will inevitably suffer harm as a result.<sup>13</sup>

It should not be underestimated for the understanding of his work (and this essay) that Waltz is applying a great deal of analogies from neoclassical economics, not only rational choice. The pure competitive market is a classic example of a structure that comes into existence independent of the wishes of the buyers and sellers, who still accidentally create it by their actions.<sup>14</sup> Every seller aims to drive competition out of business but their collective action creates a market equilibrium. In the very same way, Waltz argues, in the international political sphere two states have an interest in outperforming their competition and by those actions they create a balance of power, the IR-analogue for “market equilibrium”. Just like in economics structure emerges out of decisions, yet decisions are shaped by structure. States do not always obey this struggle for power and Waltz admits that they do not have to (they still bear agency). But disobedience is costly: States which did not take part in creating a balance of power have been harmed by the system: States lose independence just like in economic theory firms go bankrupt.<sup>15</sup>

The fundamental characteristic of the system, which bears primacy over the actions of states, is anarchy, in which states only differ in terms of their relative capabilities. This structural quality dictates the broad scope of state behaviour. The analogy to the IR-theorist’s anarchy is the economist’s concept of competition.

This analogy of (political) anarchy and (economic) competition in the Waltzian framework requires further attention. One could oppose this comparison by arguing that even in the neoclassical system of the free market there is „regulation“ e.g. through atomic competition and the law of one price, i.e. that it is much less „anarchic“ than the system of international politics with seemingly no „regulation“. On a closer look though this objection can be attacked from two directions. First what we see in economics is not regulation but the working of internal mechanisms and second these mechanisms are also existing in international relations.

What looks like regulation in the system of economic competition is actually not regulation in the sense that it is coming from an external regulating actor, but rather systemic self-regulation. The law of one price is not being enforced by an external regulator but systemically by self-regarding actions of the market participants.<sup>16</sup> Whenever the law posing that „a good must sell for one price in all locations“<sup>17</sup> is being broken differences between prices are swiftly eliminated by market participants taking advantage of arbitrage opportunities until those opportunities disappear. This law is therefore magically reestablishing itself through systemic constraints and not through external regulation. The same accounts for atomic competition. The feature of atomic competition in economics is part of the assumption of a perfect market. On a market all actors follow the same systemic imperatives, which turns them functionally undifferentiated. Every firm is first and foremost concerned with its survival on the market. By analogy, Waltz argues that states in the international system are like firms in a domestic economy. Every state has the same



fundamental interest to survive. Any other possible action is secondary. This renders states functionally undifferentiated i.e. overwhelmingly focused on survival, just like firms.

Therefore what we see in the neoclassical market, atomic competition and the rule of one price, is not regulation but more the outcome of self-controlling systemic mechanisms. And these mechanisms can be also found in the anarchical system of international politics in the form of equilibriums and the internal make-up of states. The analogy of economics and international politics works under the assumptions of the Neoclassical Economists and Waltz. Note that both the theory of economic competition and anarchy are placed in the realm of theoretical assumptions and not empirical observations. The real world is of course much more complicated but these theories aim to carve out the defining variables. The aim here was to show that both theories can be seen as analogous to each other. And since they are, both theories prioritize structural constraints.

It is this primacy over agency, which is crucial for the point of this essay and more precisely the question if this primacy is ontological or epistemological.

### The Constructivist's Critique

The main constructivists claim is that institutions, cultures, norms and identities are sources of variation in international political behaviour and outcomes.<sup>18</sup>

Constructivist scholars like Wendt, Katzenstein and Wæver distinguish between brute and social facts.<sup>19</sup> To confuse them is a cardinal error.

This mistake is what they accuse Waltz of. It is a mistake to treat anarchy as a brute fact, like Waltz, as something that conditions itself without itself being conditioned. Rather, anarchy is what "states make of it"<sup>20</sup>, a product of agency. By doing that constructivist scholars support agency's ontological primacy over structure and accuse Waltz of doing the opposite.

It follows, that state interests are not just "out there" waiting to be discovered, but they are constructed through social interaction. State interests are defined in the context of internationally held norms and understandings about what is good and appropriate from the external, and of the state's identity from the internal perspective.<sup>21</sup>

Constructivists solve the agency-structure debate in an innovative way: it is not either or but it is their interaction and constitutions.

The constructivist's explanation has, in contrast to TIP, a micro-focus: By using Giddens concept of social structures, it investigates patterned relationships between elements of society that are repeated across time and space.<sup>22</sup> Wendt argues that such systems are containing norms, beliefs and ideas functioning as enablers or constraints in the same way material constraints work and he is not denying that the latter play a major role. But normative structures such as international law also affect action by shaping the interests and identities of actors, which in turn limit their range of actions. Constructive theory explains the rules, which govern social situations, how and why actors engage in certain practices in certain contexts and how the practices instigate the rules or fail to do so.

The different foci of constructivism and structural realism can already lead one to suspect that both are actually talking past each other: Waltz uses a strict macro-level, Wendt a micro-level. Waltz explores general outcomes, Wendt individual identities and most fundamentally as the following paragraph will show: Waltz talks epistemology, Wendt ontology.

### The meta-theoretical Turn

The insights of constructivism offer an enormous contribution to the study of International Relations, especially (and in contrast to Waltz's) to the study of foreign policy. But as a critique on Waltz's theory, constructivism misses a point.

Constructivists commit a categorical mistake when they assume that Waltz gives structure an

ontological primacy to agency, because he is theorizing on an *epistemological basis*. He is not declaring that systems are irreducible and prime but assuming this.<sup>23</sup>

Hence Waltz has to be called a structural functionalist in the sense that his theory views structure as “sufficiently stable uniformities in the results of underlying processes so that their constancy within certain limits is a workable pragmatic assumption”.<sup>24</sup> This is an epistemological point: reality does not actually (always) bear this attributes. But this assumption develops the most parsimonious and functional analytical category to make productive analysis possible.

Waltz’s theory therefore has to be understood as a meta-theory: he presents his theory as a tool for future theory building with the claim that the *assumption* of “structures tells us a small number of important things”. He is not offering a descriptive ontological theory but an epistemological tool in order to captive facets of what is in reality a multifaceted action.<sup>25</sup>

One might challenge this point by arguing that also theoretical assumptions need to be realistic and empirically testable. A functionalist rejects that: Assumptions need to reliable but not necessarily realistic, some even claim: the less realistic the better.<sup>26</sup>

This kind of reasoning holds another fundamental link to economic theory: The author of this essay studied economics in the aftermath of what is now known as the “Great Recession”. A major dispute between students and teachers was the “homo oeconomicus”, the assumption of self-interested, utility maximizing, rational behaviour. Analogous, the state in Waltz’ theory could be called the *civitas oeconomicus*. How can we use a model, the students complained, that assumes a behaviour, which clearly deviates from our real life actions? The economists answer and analogous Waltz’ answer to the constructivist critique is: “Because it works. The approximations offer us law-like explanations. If you explore human behaviour that differs from the model, that’s fine. Try to theorize it, the homo economicus offers you a clear demarcation tool.” And indeed this is how behavioural economics started.

Milton Friedman, the standard bearer of orthodox economics himself, offers us a clear explanation why model assumptions need to be explanatory but not necessarily realistic:

*A theory is important if it "explains" much by little, that is, if it abstracts the common and crucial elements from the mass of complex and detailed circumstances surrounding the phenomena to be explained and permits valid predictions on the basis of them alone.*<sup>27</sup>

Therefore a good theory is never realistic in its assumptions.<sup>28</sup> A good theory according to Friedman is measured by its predictive power not by the accuracy of its assumptions. In order to have predictive power a theory needs to abstract and simplify. Too realistic assumptions are in the way of that. Friedman uses the example of a completely "realistic" “theory” of the wheat market.<sup>29</sup> It would have to include the kind of credit instruments used to make exchanges; the personal characteristics of traders such as the colour of each trader's hair and eyes, his antecedents and education, the kind of soil on which the wheat was grown, its physical and chemical characteristics, the weather prevailing during the growing season; the personal characteristics of the farmers growing the wheat and of the consumers who will ultimately use it; and so on indefinitely. Very realistic assumptions but no predictive power.

Therefore a theory should be measured not by testing if its assumptions are realistic but if its predictions that are better than the predictions of other theories or if its offers predictions at all<sup>30</sup> - beat that, constructivism!

In addition to Friedman, Alfred Marshall’s phrase that economics laws are statements of tendencies<sup>31</sup> is worth considering. His main claim is that economic mechanisms work out their influences within a very complex and messy system i.e. a social system inhabited by mostly intelligent human beings. This background adds an almost infinite variety of complicating factors. Owing to this complexity economic analysis can offer us nothing more



(and nothing less) than “tendencies”. A decrease in demand implies a “tendency” for prices to decrease as well. This is a statement of a tendency more than a general rule because it assumes that all the other complicating factors do not work in the opposite direction of this tendency with sufficient strength<sup>32</sup> – an economist calls this “*ceteris paribus*”. Marshall goes on with comparing economic models to the theory of tides. The general tendency for tidal waves is given by the gravitational pull of the moon and the sun. This factor offers us to model tides quite accurately. However there are much more complicated factors such as meteorology affecting the tides. But since they are secondary in its influence we can still arrive with adequate prediction by relying on statement of tendencies.<sup>33</sup>

Friedman and Marshall tell us how Waltz’ theory has to be seen. Waltz is making assumptions based on approximations, which are undoubtedly (as the constructivists have shown) wrong on a micro-level but they offer us analytical parsimony on the macro-level and allow us to derive general tendencies from it. And that is what Waltz was claiming to analyse anyway, not foreign policy.

Rough approximation and unrealistic assumptions are a sign for a well-developed, efficient theory. We can compare these theories with theories from the natural sciences: In Newtonian Mechanics we calculate the free fall of objects as if they were falling in vacuum, because it is the most efficient theory in terms of simplicity and predictive fruitfulness. The objection that we are not living in a vacuum is absurd, because it is a model assumption and the theory is a macro theory. But exactly this mistake is made by constructivists in their critique of TIP. We know air resistance, density and gravitational drag (just as we know discourse, interaction and identity), but the complexity of incorporating this into a theory does not justify its minimally more accurate prediction. Newtonian mechanics and in our case TIP is not eliminated by those insights from more complex theories. Indeed even NASA still uses Newtonian physics as a base for their missions despite having a more complex theory of general relativity at hand. Newton’s laws offer the more effective approximations.<sup>34</sup>

However, if the approximate theory fails to describe the fall of an object (maybe because we are on the moon), we can still add the more complex aspects as a “control theory” or micro-theory. To stay in this analogy: TIP is the free fall in vacuum, Constructivists offer micro elements as control theory, a powerful addition if units do not act according to TIP.

Constructivism can work as an addition but not as a replacement of TIP because this essay doubts that constructivist theories offer a better predictive power as macro theories let alone parsimony. Just like the theory of general relativity they serve as a complex corrective to a functional base.

“The assumption that men behave as economic men, which is known to be false as a descriptive statement, turns out to be useful in the construction of theory”, writes Waltz.<sup>35</sup> In this way the relation between TIP and constructivist theories should be seen, too, where TIP serves as a frame to attach descriptive theories to. The idea of micro-foundations for macro-theories is very popular in economics e.g. New Keynesian (micro-)economics as a background for Keynesian (macro-) economics. The aim of those micro-theories is to aid and sustain macro-theories. Macroeconomists can derive insights derived from (aggregated) microeconomic models and include them into their macroeconomic framework. A powerful example is Dynamic stochastic general equilibrium modelling. Can we achieve such a symbiotic coexistence between theories of international relations as well? The aim of this essay was to give courage to do so by pointing out a specific direction. An integration of theories could add new strength to IR and some authors have already worked in this direction.<sup>36</sup> In order to explain international relations most convincingly it is better to work with another than against each other. To include constructivist theories within an TIP framework, as has been argued here, is only one way to do so.

Coming back to the introductory claim of Waltz that “structures can tell us a small number of big and important things”, the sentence which follows is revealing: “They focus our attention



on those components that usually continue for long periods". This fundament of analysis allows us also to make sense of deviations (of constructivist nature). The fundament is important for any scientific enquiry as a starting point (see Neurath's axiom, quoted in the beginning). Waltz opens a fundament for a future integration of constructivist theories. This opportunity has not been fully taken yet.

It is beyond the scope of this paper but important to point out that there is also an inverse debate: Wendt's theory can also be seen as a meta-theory for TIP, by arguing that the neostructuralists' insights deal with only *one* culture of anarchy within the constructivists framework. This was a major motivation for Wendt.<sup>37</sup> However this paper elaborated the opposite direction: TIP as a functionalist framework for constructivism.

A potential caveat might dampen the enthusiasm about our synthesis: If Waltz is a functionalist as this essay tried to show, this is a contradiction to his adherence to Popperian methodology which claims that a theory (or at least the derived hypotheses) must be falsifiable. Mouritzen saves us from this potential contradiction by proving that Waltz' adherence to Popperian methodology is inadequate when it comes to falsificationism. In this sense he argues Waltz is much more inspired by Lakatosian insights.<sup>38</sup>

### Conclusion

This essay has classified Waltz' theory into a functionalist framework, very much like the economic theories it is inspired by. Waltz assumes that structure has primacy not because this is the case, but because it helps to theorize upon. His theory should therefore be measured by its fruitfulness and simplicity, not by the empiric truth of its assumption. Constructivist criticism, which mistakes Waltz's concept of primacy as ontological primacy and not epistemological, therefore makes a categorical mistake. Anarchy might be what states make of it, but what states make of it is broadly shown by TIP. States respond to anarchy *ceteris paribus* in a way sketched by TIP. Constructivist theories offer a more detailed micro account to check and balance the general predictions by TIP. TIP serves as a meta-theory to the study of International Politics like the homo oeconomicus theory for Microeconomics. Within this framework the economist can use corrective theories such as behavioural economics and the international relations scholar can utilize constructivist theories.

By viewing TIP as a functionalist macro-theory it can therefore incorporate constructivist theories as control-theories and creates a powerful synthesis for future research.



**Notes:**

1. Thank you to Lea Falk for her support.
2. Quine, *Word and Object*. 3ff.
3. Becker, *Economic Approach to Human Behaviour*.
4. Brown, *Understanding International Relations*.
5. Morgenthau, *Politics among Nations*.
6. Waltz, *Theory of International Politics*.
7. *ibid*, 15.
8. *ibid*, 19-21.
9. *ibid*, 122.
10. Taliaferro, *Security Seeking under Anarchy*.
11. Waltz, *Theory of International Politics*.
12. Brown, *Understanding International Relations*.
13. *ibid*, 46.
14. *ibid*, 43.
15. Waltz, *Theory of International Politics*.
16. Persson, *Law of one Price*.
17. NASDAQ, *Law of one Price*.
18. Goddard et al, *Paradigm Lost*.
19. e.g. Katzenstein, *The Culture of National Security*.
20. Wendt, *Social Theory of International Politics*, 5.
21. Finnemore, *National Interests in International Society*.
22. Giddens, *The Constitution of Society*.
23. Goddard et al, *Paradigm Lost*.
24. Parsons, *Essays in Sociological Theory*.
25. Goddard et al, *Paradigm Lost*.
26. Friedman, *Essays in Positive Economics*.
27. *ibid*, 153.
28. *ibid*, 153.
29. *ibid*, 165.
30. *ibid*, 171.
31. Marshall, *Principles of Economics*.
32. Sutton, *Marshall's Tendencies*.
33. *ibid*.
34. Riebeek, *Nasa Earth Observatory*.
35. Waltz, *Theory of International Politics*, 89
36. e.g. Gallarotti, 2010; Fearon, 2002; Wendt, 2004 & 2015.



37. Wendt, *Agent-Structure Problem in International Relations Theory*.
38. Neumann et al, *The Future of International Relations*.



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