

Reading Tinbergen Through the Lens of Max Weber

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I. INTRODUCTION

With *Jan Tinbergen (1903–1994) and the Rise of Economic Expertise*, Erwin Dekker (2021) has written the biography of Jan Tinbergen that he deserves. As a figure both important for the development of the economic sciences and immensely influential on Dutch politics, Dekker's book is not the first assessment of Tinbergen's life and work. But where previous authors have focussed on one aspect of Tinbergen's thought—for instance, as scientific expert, party ideologue, or inventor of the first macroeconomic model, and often reducing Tinbergen to a specific archetype, like technocrat, calculative engineer, or dreamy idealist—Dekker takes all these aspects and paints a complex picture.¹ Tinbergen was both technocrat and idealist, neutral scientific scholar and party ideologue, and thus cannot be reduced to any ideal-type.

One of the myths Dekker seeks to dispel in particular is the idea that Tinbergen was a pioneer or that he embodied modern economics. As Dekker describes, Tinbergen is best situated on the break between 19th-century political economy and modern (neoclassical) economics. On the one hand, Tinbergen was early on an adherent of the marginalist, like Jevons, Walras, and Menger, who laid the foundations for post-war economics. Tellingly, Tinbergen's first articles were on utility curves when his political outlook was still strongly influenced by Marx. On the other hand, Tinbergen was, with regard to the goal of economics, much closer to 19th-century political economy. He shared with the German Historical School of Schmoller, Brentano, and Sombart, and the Austrian School of

¹ See the earlier treatments of Tinbergen in Blok (1988), Boumans (1990), Morgan (1991), Alberts (1994), van Dalen and Klamer (1996), Jolink (2003), Pen (2005).

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Schumpeter, Mises, and Hayek, an interest in the relationship between political order, law, and economics (11, 159).

Another major figure that Dekker mentions in this context is Max Weber. As Dekker suggests, Tinbergen can be seen as “the ideal Weberian scientist” (205). Like Tinbergen, Weber was manoeuvring between the aims and methods of the Historical School and marginalism. Also, Tinbergen adhered to Weber’s prescription of the neutral scientist, abstaining from any value commitments in his scientific work. That latter point might be surprising, as Tinbergen was very much also a politician with strong personal convictions. Moreover, his work as scientific expert sought to combine these professions of the scientist and politician. How could Tinbergen be both the ideal Weberian scientist and still combine politics with science?

Dekker argues that Tinbergen escapes this paradox by posing the economy as a separate sphere (206). Tinbergen imagined himself to be a social engineer that could manage the (almost mechanical system of) the economy on the basis of the inputs from politicians. But he refrained from saying anything about the desirability of those inputs. And indeed when looking at his publication of the first macroeconomic model of the Dutch economy, it is clear that Tinbergen takes a neutral position with regards to many policy proposals circulating at the time for counteracting the recession (Tinbergen 1936). Yet, I would advance a different reading of Tinbergen’s mixing of science and politics. Like Dekker, I see Tinbergen as a scientist adhering to the Weberian ideal. However, I think that Weber’s distinction between the vocations (*Beruf*) of the scientist and politician is less clear cut than often assumed. Weber allowed a role for values in science. These were, however, to be internalised, forming the personal creed of the scientist, not the shared values that constitute a community or political movement. As I will argue, Tinbergen found a way for his personal convictions, as a scientist, to play a role in his politics without violating the Weberian dictum.

In support of my interpretation, I will place Weber’s writings on the vocations of the scientist and politicians in their historical context and connect this context to the interwar political and cultural environment in the Netherlands in which Tinbergen made his first important contributions as an economic planner. My intent is to use Weber’s lectures on the vocations of the scholar and the politician as a lens through which multiple themes in Tinbergen’s life and work can be viewed. This will allow me

to highlight and connect aspects of Tinbergen's thought that otherwise remain obscure.

It is not my intention to reduce Tinbergen's life and work to the philosophy of Weber. Rather the aim is to explore the philosophical questions that are entangled in Tinbergen's thought. Dekker himself connects throughout the book Tinbergen's intellectual development to larger issues in the philosophy of economics. For example, to the issues of how economic expertise relates to public economic knowledge and liberal democracy (249–258, 393–395). In that sense, my commentary is not intended as a critique of Dekker's work but rather as a continuation of his philosophical reflections and an exploration of what other readings are possible.

II. THE HISTORICAL BACKGROUND OF WEBER'S VOCATION LECTURES

In 1919, Max Weber delivered two famous lectures in Munich, which can be summarised in one sentence: scientists should refrain from pursuing a higher (political) purpose, for instance a vision of the good life or a political creed, while politicians should refrain from doing science (Weber 2020a; see also 2013). Weber's image of the scientist as politically neutral would become dominant after the Second World War, but it was, at that time, still highly contested. It would not be overstating the case to say that Weber deliberately provoked his audience with his comments (Derman 2012, 48). Therefore, it is worthwhile to give a brief background as to what led Weber to make his famous defence of the separation of science and politics.

Weber was part of the tradition of the German Historical School in Economics and was a member of the *Verein für Socialpolitik* founded by Gustav Schmoller, Gustav Wagner, and Lujo Brentano. The *Verein* and Historical School were famous for their social commitments, strongly advocating for social reforms in the late 19th century. At the same time, as is well documented, Weber felt attracted to the main rivals of the Historical School, the Austrian School in Economics, headed by Carl Menger (Maas 2014, 34; Kolev 2018; Callison 2022). Menger did not only disagree with the Historical School in terms of methodology, favouring a stricter conception of economics as concerned with means-ends rationalisations of individual actors, but he also disagreed with the political activism of the *Verein für Socialpolitik* (Grimmer-Solem 2003, 249–267; Klooster 2022). Menger, who had a strong conservative outlook as compared to the liberal-progressive inclined Schmoller, Wagner, and Brentano, not only

denounced the social reforms advocated by the Verein but went further by arguing that economics should refrain from direct involvement in politics if it wanted to be scientific.

Connected to the methodological and political skirmishes of the Austrian School and Historical School was also a question of the national and international focus of economics. The Historical School propagated the research of economics in a national and comparative context. Each national economy developed differently according to national customs and laws, even if universal developments could be discerned in a comparative framework (for example, industrialisation, or the emergence of the proletariat). The Austrian School, in comparison, had a more universal outlook, focussing on economizing behaviour regardless of national context. Or as Dekker has suggested in his earlier work, they focussed on civilisation rather than nation, that is, the level of culture and morality shared by Western peoples beyond the confinement of ethnicity or nationality (Dekker 2016).

It was this clash between a nationalist and universal outlook that would mark interwar scholarly thought on the relation between science and politics. Weber delivered his famous vocation lectures against the background of a major change in the identity of the Western sciences. Science before 1914 was conceived of as a nationalistic affair. Although international scientific congresses were an important part of knowledge exchange, these congresses were conceived of as a meeting of nations, similar to a diplomatic conference (Somsen 2016, 2021). In the nationalistic conception of science, the political commitments of the scientists had been relatively straightforward. In this ideal—probably best embodied by the Wilhelmine era of state-funded sciences—scientific breakthroughs were victories of the nation, and science contributed to the strength of a nation (Wise 2018). Each scientist represented their own specific nation and its interests.

By the 1900s, however, this conception of science started to shift. Rising tensions and animosities between the European powers made the collaborative efforts between nations increasingly difficult. And with the outbreak of the First World War, the nationalistic identity of science came to a dramatic end. After the War, many of the scientific community feared that science in service of nationalism had strongly contributed to the war effort, and was consequently responsible for the many horrors committed by new war technologies, such as mustard gas (Somsen 2016).

In the demise of the national identity of science a new *scientific persona* of the international scholar was born (Daston and Sibum 2003). This entailed a commitment to the international scientific community rather than a national one. This international outlook rhymed well with another international movement emerging at the beginning of the 20th century, the peace movement. This international commitment to peace formed a strong antidote to science in the service of war technology. Unsurprisingly, internationally oriented scientists, like J.D. Bernal and Joseph Needham, combined an international outlook with a strong commitment to peace (Hobsbawm 2006). As Dekker shows, it was this international conception of the scientist that, together with the international peace movement, instilled a strong international outlook on the young Tinbergen, clearly displayed in his convictions that only international collaboration could solve the economy's problems and that international solutions required international, rather than national, institutions (Dekker 2021, 273).

The new international *persona* of the scholar raised one important political question, of which Weber was acutely aware, namely, to what kind of politics was this international science aligned? Weber was a firm nationalist, albeit a liberal one. In the chaos ensuing Germany's defeat in World War I, he urged his student to fight for the German nation, notoriously arguing that Germany should take the territories lost to Poland back (Palonen 2001). Still, he understood modernity as a fracturing force (which I will explain in detail below), shattering any overreaching values, ideologies, or culture that could form the basis for the legitimacy of the nation state. Modernity had caused a plurality of values, and the issue seemed to concern which values science should adhere to in lieu of any natural overreaching national-cultural one. The new international persona of the scientist invited scholars to seek new overreaching ideologies to guide the scientific endeavour. This led figures like J.D. Bernal, Joseph Needham, Dirk Struik, and Otto Neurath to argue that this new international politics, to which science would be a service, could only be socialism (Alberts 1994; Somsen 2008; Sandner 2009). In contrast, Weber gave a different answer. He argued that scientists in modern times should refrain from any political ideology or commitment (Weber 2020c, 22-23).

This led Weber to the formulation of his famous thesis on the value-neutrality of science. For Weber, the increased rationalisation of society had led to a divergence between the types of questions science could pursue and the questions concerning the meaning of life. Science could tell humankind how to control its environment, Weber argued in *Science as*

Vocation, but not to what ends this newfound control should be put. Anyone who thought differently was misleading themselves. Such weariness of overreaching goals was also on display in his other Munich lecture, *Politics as Vocation*. There, Weber, as a liberal, warned against the idea that the state and society should commit to one particular worldview. For Weber, modern societies were plural, and it was up to the individual to choose among “the multiple gods” which ones they wished to serve (Weber 2020c, 36). Science, Weber stressed again, could not tell individuals which ends to pursue, only how. It was up to the individual unbound by science to decide what the ultimate ends were.

At first glance, Tinbergen seems to go against Weber’s dictum, as throughout his whole career he sought to combine politics and science. Moreover, Tinbergen put moral convictions at the centre of his economic research, seemingly disagreeing with Weber’s idea that modern sciences only revolved around increased instrumental control. His aim was “to make economics a moral science again”, as Marinus van der Goes van Naters put it (Dekker 2021, 215). At the same time, Tinbergen agreed with Weber that the rationalisation at the centre of modernity was a fragmenting force that made overreaching ideologies impossible. Moreover, as Dekker describes, in his famous work for the league of nations, Tinbergen’s research took on a very political neutral character, simply checking for the viability of different theories of business cycles (159–160). Did Tinbergen embody the Weberian scientist or the complete opposite?

Part of the answer lies in the fact that for Weber values did ultimately play a crucial role in science (Shapin 2019). Not as the goal, nor as something to be derived from the scientific endeavour, but in the form of the personal commitment scientists had to show towards their scientific work (Weber 2020c, 24). The academic world was harsh, Weber warned the Munich students, and if one went into science with the expectation to find wealth, political power, or the meaning of life, disappointment was inevitable. Instead, the scientist had to internalise their hopes for scientific endeavour. As no rewards of a scientific career were to be expected, it was up to the personal commitments of the scientist to persist. If one wished to commit to the “impersonal gods” of the sciences, one could decide to do so (Weber 2020c, 32). The most important point was to be true to one’s commitments.

III. PERSONALISM

One of the central focuses of Dekker's biography of Tinbergen is his adherence to personal moral convictions. Although Dekker does not use the term 'personalism' to describe Tinbergen's worldview—the notion perhaps too vaguely associated with the works of Henri Bergson and in the Dutch context with the theologian and Labour Party member Willem Banning—I would argue that the notion encapsulates quite well how Tinbergen combined politics and science; this strongly resonates with what Weber called for in the personal commitments of the scientist and the politician. Personal character was at least central to how Tinbergen balanced his public commitments as a scientist and political advisor.

As Dekker argues, already from his teenage years, Tinbergen engaged in politics out of a personal calling, fostered by the religious remonstrant morals he grew up with. In Dekker's narrative, Tinbergen experienced his engagement with science and politics almost as a task given by God. Citing Matthew 25:15 "to every man according to his ability", Tinbergen understood this task as his responsibility to use his talents to the best of his ability for all of mankind (92). The ordinance of one's profession was thus based on what was given by God and the personal commitment to these dispositions. In Weber's terms, it was a personal choice to act under the ultimate gods of science.

Tinbergen's abandonment of Marxist socialism, in which the collectivisation of the means of production stood central, in favour of a more community and spiritual-based socialism can be described as personalist. As Dekker recounts, Tinbergen was in the 1920s deeply involved in the youth movement of the Social Democratic Worker's Party (*Arbieders Jeugd Centrale*, AJC) (44). The AJC professed a form of socialism based on the creation of a new moral consciousness of the worker. It promoted virtues of frugality and abstinence as well as the cultivation of new sensibilities. Its members were encouraged to abstain from liquor and smoking, make long hikes, and partake in creative activities such as dancing and singing. The goal was not to give the working classes ownership over their means of production but to create a new kind of human. A human being morally prepared to take up the challenges of the modern world. The ultimate aims of socialism were to create a new community through the cultivation of one's personality.

The spiritual inclinations of the AJC seems at odds with Weber's rejection of new forms of spiritualism or vitalism (Weber 2020c, 38). Still, the move toward the cultivation of personal virtues is in line with his idea

of science as vocation. This should be read in conjunction with his views on rationalisation and modernity. Weber is famous for his Brutus-faced confrontation of modernity: one cannot stop rationalisation, one cannot go back to the enchanted world of yesterday, and one cannot re-spiritualise the earth (Derman 2012, 122). Despite Weber's conviction, many inter-war scholars sought to synthesize the rationalised world with a new sense of community. Jan Goudriaan spoke, for example, of the spirit of democracy consisting of "something soft and tender, the love of humanity" and "something steel-hard [... the] piercing intellect", and that "the combination of these two qualities [...] is the first necessity for the betterment of this society" (quoted in Boumans 1989, 230).

Such sentiments were more broadly shared in the Dutch context. As David Baneke describes, most prominent among them were the scholars associated with the journal *Synthesis*, who, true to their name, sought the synthesis of the hard calculative mind of science with the thoughtful and feeling heart of culture (Baneke 2008). One of its most prominent adherents was the engineer Isaäc Pieter de Vooys, who argued for the poetic understanding of reality, a combination of the arts and sciences, which allowed engineers to "think creatively under scientific control" (quoted in Baneke 2008, 108–109). The manner in which the Synthesis movement thought to achieve this reconciliation between creative thinking and rational control was by using science for social ends, or to be more specific, to use science to foster a new community spirit. Clearly, the Synthesis movement went against Weber's dictum of separating politics from science, however, as I will argue below, their personalist interpretation of how science and politics should be combined provided for Tinbergen a model of how to be a neutral scientist while at the same time being a politically engaged expert.

Dekker only briefly focuses on Tinbergen's involvement in the Synthesis movement—Tinbergen wrote a couple of entries to a Synthesis encyclopaedia on economics—but his personalist conviction does match the general outlook of the movement (81). For example, Tinbergen's involvement in the design of the Plan of Labour in 1934 can be understood in light of the search for a new community spirit. Although Tinbergen's task was to provide the scientific underpinnings of the Plan, the aim of the Plan was not intended as a policy document to be simply implemented by the government. Rather, it aimed to inspire a political movement, to show that an alternative to the current politics was readily available. Through festivities and parades, the Plan was intended to foster a new political

community, in which the people could join in the jubilation of a more socialist future.² Tinbergen's contribution to the plan (in the form of the first macroeconomic model of the Dutch economy) was scientific research in service of a communal spirit, very much in line with the aims of the Synthesis movement as professed by De Vooyo.

IV. TECHNOCRACY

De Vooyo was a proponent of technocracy. One of the reductions that Dekker seeks to dispel is the one-sided image of Tinbergen as a technocrat. According to Dekker, Tinbergen's motivations in politics were foremost inspired by personal values and not by any scientific worldview (105–106). However, the notion of 'technocracy' underwent a shift in meaning after the Second World War and we should be wary to not project our contemporary meaning of the term back into the past. For De Vooyo, 'technocracy' did not so much denote the rule of scientists as justified by their expertise, but rather the use of expert knowledge to enhance their political leadership qualities. In the former sense, it might be justified to call Tinbergen a technocrat.

To understand this notion of technocracy, it is informative to go back to Weber's lecture on the vocation of politics. Weber was infamously a proponent of a charismatic leader that could navigate modern parliamentary politics between the Scylla of bureaucracy and the Charybdis of 'horse-trading' interest group politics.³ The basis of such good leadership was character, more specific, a personal sense of responsibility (*Verantwortungsethik*), the ability to act pragmatically in dangerous situations, without shifting the responsibility for the outcome of one's acts elsewhere (Weber 2020b, 96). This form of ethics was in contrast to a principle-based form of leadership (*Gesinnungsethik*), where absolute convictions would dictate political action.

In light of Weber's description of the ideal leader, one can easily categorize Tinbergen's politics as a form of *Verantwortungsethik*. As Dekker rightly points out, Tinbergen was never the hopeless utopian dreamer

² Through a discussion of a letter exchange between Tinbergen and his fellow socialist engineer Ed van Cleeff, Dekker stresses the illiberal character of the Plan of Labour propaganda (118–123). In contrast, I would like to stress the anti-fascist goal of the Plan of creating a popular front against fascism. The Plan marks the shift in focus of the Social Democratic Worker's Party from the working classes to the people in general. See Kayzel (2021, 120–121).

³ Later associations with the 'Führerprinzip', together with his nationalist convictions, has strongly tainted Weber's advocacy for strong leaders (see Löwith 1981; Mommsen 1984).

(36). Although he was a very principled man in his private life, priding himself on personal frugality and never owning a car, Tinbergen was mostly a pragmatist when it came to politics. He was always aware of the concrete restrictions of the political landscape in which he was operating. Dekker seems to imply that he was too pragmatic, as he was willing to cooperate with non-democratic regimes in order to realise his own economic ideas, as was the case with the consulting work he did for the regime in Turkey (334–335).⁴ How then did Tinbergen integrate his strong moral convictions with his pragmatism? The answer was that in Tinbergen's conception, the ideal leader would lead by example. Showing that his ideal economic order was possible, indeed viable, even if global politics were far removed from this ideal, was the first step in changing the minds and hearts of the people and national leaders (361). In other words, he showed how a responsible leader could make the best of their circumstances and could inspire a new community spirit. This was a very personalist idea of good leadership, in which the creation of new communities stood central.

Tinbergen's own leadership by example was strongly based on his own technical abilities. A good example is his book *International Economic Integration* (1954), which presents a model of the decision-structure of the world economy. The aim of this model was not to be a representation of the global economy. Nor was it a blueprint to be directly implemented, as Tinbergen realised the model was too ambitious. Rather it was a method to think through the major issue of international trade and the relations between industrialised economies and developing economies. It had to inspire the national leaders to think of economic issues beyond the national economies and to take steps in the direction of more international cooperation. His hope was that the European Economic Community (founded three years after the publication of Tinbergen's *International Economic Integration*) could embody the ideal that was theoretically spelled out in his theoretical work. True to the Synthesis ideal, Tinbergen's theoretical writings attempted to inspire new international communities through the clarity of scientific reasoning. The technical skill to separate realistic options from mere wishful thinking was indispensable. In that sense, Tinbergen was a technocrat in De Vooy's definition of the term: a political leader that utilised scientific knowledge to boost their

⁴ This is explored by Dekker in more detail in some additional articles on Tinbergen and the international economic order (Dekker 2019, 2020).

own ability as a leader.⁵ In Tinbergen's case, this meant using technical knowledge to lead by example; or, to show examples from scientific knowledge in one's leadership.

V. RATIONALISATION AND HISTORICAL DETERMINISM

One of the puzzles that Dekker presents to his readers is how the determinism of rationalisation was to be reconciled with Tinbergen's personalist-voluntarist politics (13). As Dekker emphasises, Tinbergen remained wedded to the conception of modernity as an unstoppable force of progress and rationalisation all his life. At the same time, Tinbergen adhered to Goudriaan's dictum, that "the world will become what we make of it" (quoted in Dekker 2021, 105). I would argue that analysing Weber's thought again might shed light on how Tinbergen overcame this paradox. Weber's answer to this problem was straightforward enough. Faced with an impersonal and cold rationalised world (a disenchanted world), the scientist and politicians were forced to internalise the wishes and hopes they had for a meaningful existence on earth, converting them into personal commitments toward the ends of their own choosing. Many scholars after Weber, however, thought that the answer was to be found in giving science substantive, normative goals, like the Dutch Synthesis movement proposed.

According to Dekker, Tinbergen strongly associated the concept of rationalisation with the emergence of scientific management (Taylorism). Scientific management meant the further division of labour into the most possible elementary task which would be controllable by the manager of the firm, resulting in a more ordered and efficient process. With business becoming more ordered, rationality would take a more central place in everyday life (104). Optimistically, Tinbergen (under the pseudonym Jan Dirks) argued in his very first article for *De Socialistische Gids* (the Socialist Guide) that competition was starting to become less and less important regarding the question of production (Dirks 1929). The economy as a whole became organised on the basis of rational principles, resulting in trusts, cartels, and monopolies. Like many other planners of the period, Tinbergen saw the increased ordering of the economy as a development that would make a (centrally) planned economy the logical next step. The question was whether this planned economy was to the benefit of the capitalist or that of the worker.

⁵ This form of technocracy is also implied by Dekker, I would argue (see 106).

Tinbergen realised that a planned economy did not necessarily entail a socialist economy. Moreover, he was not blind to the negative consequences of a rationalised economy. Rationalisation alienated workers from their product and made exploitation by capitalists easier. Already in his very early work, he attempted to determine how the utility gained from increased efficiency would be distributed amongst the workers (Tinbergen 1931). Did increased productivity leads to more happiness? He worried about the psychological effects of lay-offs due to increased efficiency on the fired worker. Even if the worker was to find new work, the negative experience of being fired would undermine the willingness of the labourer to work in the long term.

Rationalisation was an inherent part of modernity but with dire consequences. How could one counter the alienation of the worker without denouncing rationalisation *tout court*? The solution was that the future was determined by rationalisation but that rationalisation did not determine one possible outcome. Instead different rationalised futures were possible. Modernity could still be steered towards a better outcome for the workers, and it was the task of scientists to steer modernity. Although Weber's definition of rationalisation differed from the one associated with Taylorism (Weber's definition was much wider in scope and firmly associated with a specific Western form of rationalisation), it shared its emphasis on instrumental control. Weber argued that scientists had to accept this instrumental form of rationality. At the same time, it was up to the modern human to decide to what ends instrumental reason had to be utilised. In present-day terminology, by applying a strict distinction between epistemic values which guided rational science and non-epistemic values which provided humankind with ideals for ethical and political life, Weber's definition of rationality was not wholly deterministic. As long as non-epistemic values could determine the goals of science, politics could decide on the course of the future, even if that future was always rationalistic in nature.

This conception of rationalisation and modernity as both inescapable but not deterministic resonated with other philosophical accounts of science and modernity of the time. Famously, Max Horkheimer and Theodor Adorno would later argue that rationality was not a neutral mean but rather determined what ends humankind would pursue (Horkheimer and Adorno 2002). They worried that rationalisation would not allow for a plurality of values, as Weber had argued, but would subsume political life under the stringent rules of scientific rationality. In such a scenario

rationalisation would indeed become deterministic. How to escape this fate? For the Synthesis movement the answer was to put the non-epistemic values front and centre again in science, dissolving the strict distinction between science and politics that Weber had drawn.

One of the models for such a combination of non-epistemic values with scientific practices was Edmund Husserl's *The Crisis of the European Sciences* (1970). In this work, Husserl diagnosed a crisis of science stemming from the fact that scientific rationality, that is, a science dependent on formal axioms and abstract rules, had lost any connection with the 'life-world'. The original question that had instigated scientific endeavour was lost in the world of abstract logic that science employed. If rationalisation was to be employed towards the benefit of the worker, it was imperative to combine rational science with non-instrumental politics in the form of finding a community spirit (van Lunteren and Hollestelle 2013). The Synthesis movement followed a similar recipe, making the search for community spirit central to the scientific endeavour. Tinbergen's own hope that modernity could be steered towards a socialist future should be read in this context.

The search for a new community that the Synthesis movement and Tinbergen adhered to seems antithetical to what Weber was advocating. Still, Tinbergen found a way to combine this search with his commitments to value-neutral science in a Weberian vein. Embedding scientific rationalisation in a broader cultural sense of community meant for Tinbergen that community spirit should be internalised as a personal conviction. Scientists could display this spirit through their political leadership. It was, in other words, a personalist solution, in which the personal commitments of the scientist were the mediator between the cold impersonal rational world and the human value-based community.

It is in this light, I would argue, that Tinbergen's technocracy should be understood. One could not, under Weberian preconditions, use science to arrive at communal values, but one could use science to boost a sense of community that stemmed from personal convictions through leadership. Morality should enter science neither as an ultimate goal, nor as something that science dictates, but as the personal morals of the scientist in the pursuit of science and politics. Scientific practice was, in that sense, not value-laden, but the reasons to pursue science were. The *scholarly persona* of the scientist could link the value-neutral products of science to the social aims of science without mixing epistemic and non-epistemic values in scientific or political practice. Rationalisation still

dictated the development of science regardless of pre-established values, but its fruits could be utilised for political ends, which in Tinbergen's case was to inspire a community.

Present-day philosophers of science have, after Weber, argued that the value-neutral ideal of science is not possible and that non-epistemic values always play a role in scientific practices (Longino 2004, Douglas 2009, Harding 2015). I do not want to suggest that Tinbergen's personalist view provides the answer to how the value-neutral ideal is still attainable in light of these later criticisms. Still, Tinbergen's thought provides a historical instance of how scientists have attempted to resolve this tension between politics and science, which has so far received little to no attention.⁶

VI. CONCLUSION

As the second half of the title of Dekker's biography implies, the story of Tinbergen's life is the story of how economic expertise arose. Dekker cites Timothy Mitchell's argument that economic expertise could only gain prominence once the economy was established as a separate sphere (Mitchell 2002; Dekker 2021, 207). Dekker argues that Tinbergen already positioned such an autonomous sphere in his macroeconomic models of the 1930s. Although I do think that Mitchell's argument rings true and the rise of the economy as an autonomous sphere is a crucial part of the story Dekker tries to tell, I would argue that a different reading of Tinbergen's expertise (especially in the interwar period) is possible. By focussing on the theories of Max Weber and the Weberian elements in Tinbergen's thought, I have attempted to show that Tinbergen's interwar expertise, although presented as neutral and focussed on the economic sphere, was embedded in broader cultural and political concerns. The aims of his expertise went beyond the economy and dealt with the fate of the modern world in total.

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⁶ For an interesting comparison on how W.E.B. Du Bois dealt with similar issues concerning the value-neutral ideal of science, see Bright (2018).

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