UNRESTRICTED QUANTIFICATION AND NATURAL THEOLOGY: IS "THE WORLD" ON THE *INDEX*?

STIG BØRSEN HANSEN

University of Southern Denmark

Abstract. The first section of this paper introduces talk about absolutely everything – the world as a totality – as an integral element in the project of natural theology, as it has been presented by Fergus Kerr and Denys Turner respectively. The following section presents talk about the world as a totality of facts as a theme in philosophical logic and outlines a problem it has given rise to there. After confronting the solution originally suggested by Bertrand Russell and defended by David Armstrong, the paper points to key elements of the solution presented by Wittgenstein in *Tractatus Logico-Philosophicus*. I show how Wittgenstein's answer to the question of unrestricted quantification draws on his notion of showing and the inexpressible. Against this background, the concluding section draws attention to an important difference in ambition between Kerr's and Turner's description of the prospects for natural theology.

1. INTRODUCTION

Throughout his authorship, Wittgenstein would use expressions from religion and practices of magic to describe issues in philosophy of logic and language. One of the earliest examples of this tendency is found in a notebook entry made in October 1914:

The expression "not further analysable" too is one of those which together with "function", "thing" etc. are on the Index; but how does what we try to express by means of it get *shewn?* (Of course it cannot be said either of a thing or of a complex that it is not further analysable). (Wittgenstein 1979: 9)

Wittgenstein's reference to the Roman Catholic list of prohibited books, *Index Librorum Prohibitorum*, is supposed to suggest a range of statements

that attempt to say what is shown by well formed propositions. Given Wittgenstein's view that what is shown cannot be said, such statements are deemed to be nonsensical and illegitimate. The expressions that Wittgenstein puts on the *Index* in the notebook are precursors of the formal concepts of the *Tractatus Logico-Philosophicus* (*TLP*). Formal concepts play a central role in the theoretical apparatus of the *TLP*, in so far as the work seeks to throw light on the nature of representation and logic. The *TLP* concludes by pronouncing its own lack of sense, and though there is significant disagreement among Tractarian commentators regarding the point and precise character of this judgment, Wittgenstein's use of formal concepts makes for clear, particular cases of the kind of statements that are ultimately deemed nonsensical.

Wittgenstein's characteristic mixture of themes from religion and logic has provided grounds for a myriad of religiously informed interpretations of his early work. Such readings rely on a huge amount of second guessing and interpreting in order to arrive at the substance of, and intention behind, Wittgenstein's claims. While this paper has set out by referring the reader to another case of Wittgenstein's usage of religious terminology in connection with otherwise quite unrelated topics, it will seek to establish a firm connection between the logical themes in the *TLP* and a range of theistic arguments. It will do this by drawing together the topic of the very opening of the *TLP*, oddly overlooked in philosophy of religion, with a style of argument that continues to be pursued in theology and philosophy of religion. The topic is that of unrestricted quantification and claims containing unrestricted quantification are found in theology and philosophy of religion when one uses the singular term "the world" to describe an all inclusive totality.

Both the list of formal concepts in Wittgenstein's notebooks, quoted above, as well as the one presented in *TLP* 4.1272, contain an "etc.",

¹ The fusing of themes can be gathered from the titles of works dedicated to early Wittgenstein and religion such as *Logic and Sin in the writings of Ludwig Wittgenstein* (Shields 1993) and *Wittgenstein and Judaism: A Triumph of Concealment* (Chatterjee 2004). They draw on either themes from Wittgenstein's philosophical logic (for instance, the notion of showing) or what appears as scattered remarks of his. Shields, accordingly, admits that his own explication of religious themes in early Witgenstein is somewhat probing and speculative, and he elaborates it in terms of affinities between logical and religious phenomena (cf. Shields 1993: 34).

indicating that they are incomplete. After an introduction of discussions of natural theology that involve use of "the world", I firstly wish to make the case that this piece of language displays features similar to other formal concepts and it therefore is a candidate for inclusion on the list. The key contention will be that what we try to speak about with the apparent singular term "the world" is in fact something that is shown by language use. Secondly, I wish to point to the relevance of what I present as the Tractarian assessment of the use of "the world" for discussions of the potential of natural theology.

2. "THE WORLD" IN THEOLOGY AND METAPHYSICS

Wittgenstein's *TLP* shares with metaphysics² and theology the attempt to speak about the world as a whole, which is currently discussed under the labels of unrestricted quantification or absolute generality. It is mainly in connection with numbers that unrestricted quantification continues to be discussed.³ Talk about absolutely everything will feature in a theological doctrine of creation, but most importantly for our present purposes, it plays a key role in the premises of a range of theistic arguments.

Below are two such uses of unrestricted quantification, taken from Fergus Kerr's and Denys Turner's respective treatment of the viability and character of natural theology. Kerr, in his attempt at softening up what some perceive to be the overly ambitious character of natural theology, as outlined by The First Vatican Council of 1870, comments:

Read in context, the claim for the possibility of knowing God with certainty from the world, by the natural light of reason, is not as ambitious as Roman Catholic apologists have often hoped and Barthian theologians always feared. As far as the fears of the latter are concerned, the idea that anyone might be coerced into faith by metaphysical arguments, or be expected to found faith in Christ on rationalist apologetics, is excluded. Perhaps surpris-

² A highly relevant conception of metaphysics would be Bradley's, according to whom metaphysics is "the effort to comprehend the universe, not simply piecemeal or by fragment, but somehow as a whole" (Bradley 1897: 1).

³ From Cartwright (1994) to the collection, Rayo and Uzquiano (2006). These discussions are typically of unrestricted quantification over things *of a kind*, typically sets or numbers. What we are considering presently is supposed to be over all kinds.

ingly, no examples are offered of what sort of reasoning from the world to knowledge of God would be appropriate. The emphasis is entirely on the claim that reasoning of some kind from the existence of the world to the existence of God is possible, without appealing to faith – in opposition to the view, that is to say, that knowledge of God's existence is either solely the result of faith or dependent on subjective experience. (Kerr 2002: 36)

The alternatives with which Kerr concludes may not strike us as sufficiently exhaustive, but all I wish to emphasize presently is the apparently straightforward use that Kerr makes of "the world" when he states the apparently quite innocent premise that the world exists.

Another recent example is Denys Turner's extremely general account of the conditions, and possible shape, of a proof of God's existence. His work is rather positive regarding the capacity of reason in coming to knowledge of God on the basis of premises that do not somehow presuppose that God exists. As well as the requirement of meeting what he calls secular conditions for inferential validity, Turner suggests:

... such a proof [of God's existence] will need to demonstrate that there is something which answers to the description "God", the minimum for which description being, as we shall shortly see, that something answers to "Creator of all things out of nothing". (Turner 2004: 76)

And this must then be shown to be "extensionally equivalent to the God of faith" (ibid.).

These are two examples of the singular term "the world", or equivalent expressions, being used in connection with theistic arguments. I shall conclude the paper by emphasizing an important difference between Turner's and Kerr's standpoints. For now, we notice that these two thinkers join many others in taking the existence of the world as a relatively unproblematic given, on the basis of which we ought to be able to somehow establish the existence of God.

3. THE WORLD AS A TOTALITY OF FACTS

The existence of the world has frequently been challenged in the history of philosophy, and more recently, van Fraassen raised the issue:

The question we confront, the one we have to face, is not whether some philosopher's theory has this or that virtue or implication. It is not the question of what is tenable, consistent, plausible, coherent, metaphysically or epistemologically satisfying. It is a question about the statement "The world exists" and is simply this question: "is it true?" (van Fraassen, 1995, p. 141)

When wishing to settle a question of existence, we start by enquiring about the nature of what we are interested in, and immediately notice that the Tractarian conception of the world as a totality of facts differs in some ways from what is most frequently meant by "the world". First of all, there are legitimate uses of "world" that are not relevant to the logical themes that we will be discussing. In some religious contexts, "the world" has moral connotations, suggesting a place where dark forces are at work.4 The word is also used to describe the Earth, regions of it (as in "the Western world") or a set of personal experiences (as in "the artist is in a world of his own"). The sense that is relevant to the issues we will raise is more frequently captured by the notion of the universe. The Oxford English Dictionary, offers the following definition of "universe": "2. a. The whole of created or existing things regarded collectively." While the use of "thing" is prevalent when the OED outlines the meaning of both "world" and "universe", the notion of a fact is completely absent. This dominant usage of "object" or "thing" is mirrored by the formulations of Kerr and Turner above, and also in the way that van Fraassen goes on to frame the question and his answer.⁵ This focus on the concept of

⁴ Cf. Ephesians 6:12.

⁵ Reluctant to accept what appears to be the ontological commitment of cosmology (*i.e.* the existence of the world), van Fraassen goes on to defend a variety of what Williamson (2003, section V) calls generality relativism: According to van Fraassen, philosophically significant use of "the world" is *always* construed as a schematic expression, which, when complemented by a relevant count noun, points to a restricted domain of quantification. As I am not concerned with discussion of unrestricted quantification over a domain of objects, I shall have to leave the reader with a quick objection to van Fraassen. Van Fraassen says that when we use "world" it is equivalent to "interpret[ing] quantifiers, [and] specify[ing] a domain of discourse" (1995: 152), a domain that in virtue of his understanding of "world" is always restricted. We can reasonably take van Fraassen to be committed to the following in virtue of simple inferences "there are some things that are not quantified over in occurrence *x* of 'world". Such a sentence, however, must be taken to have quantified over all the things that were not relevant to the count noun that completed the supposedly schematic "world". Lewis' even quicker rejoinder to attempts

a thing would seem to make for a contrast with the Tractarian conception of the world as a totality of facts, and we shall set out by commenting on the Tractarian understanding of the world. By what follows I do not presume to be able to win anyone over to becoming "a friend of facts". More modestly, the purpose is to position the Tractarian emphasis on facts in the landscape of approaches to ontology.

Motivating and carefully explaining standpoints was never an overarching concern when Wittgenstein wrote the *TLP*. To get an idea of what he had in mind in thinking of the world as a totality of facts, we may look at some of his informal comments on the *TLP* upon his return to philosophy in the early 30's:

"The world is everything that is the case". This is intended to recall and correct the statement "The world is everything that there is"; the world does not consist of a catalogue of things and facts about them (like the catalogue of a show). For 1.1, "The world is the totality of facts and not of things". What the world is is given by description and not by a list of objects. So words have no sense except in propositions, and the proposition is the unit of language. (Wittgenstein, 1980, p. 119)

This is a transcript of a conversation, and although the explanation off its own bat might only seem like a very slight pedagogical improvement on Wittgenstein's behalf, we can glean some of the implications and motivations of Wittgenstein's appeal to facts in the TLP. Firstly, as a cursory reading of the TLP will reveal, the existence of objects is not being denied. Both early Wittgenstein, and others such as Bertrand Russell and David Armstrong⁶ who emphasize facts in their meta-ontology,

at stating that it is impossible to quantify over all objects is this: "Maybe the [relativist] replies that some mystical sensor stops us from quantifying over absolutely everything. Lo, he violates his own stricture in the very act of proclaiming it." (Lewis 1991: p. 68)

⁶ Armstrong says regarding states of affairs: "The phrase 'state of affairs' will be used in the same way that Wittgenstein in the Tractatus used the term 'fact'" (Armstrong 1997: 19). It seems to me that Armstrong fails in using "fact" in the same way as Wittgenstein in so far as he takes states of affairs to be possibilia and a fact to be a state of affairs that obtains. Meanwhile, we can for present purposes take Armstrong's and the Tractarian conceptions of a fact as equivalent in the following minimal way: "The cup is on the table" represents a state of affairs. If the cup is in fact on the table, the state of affairs obtains, and "the cup is on the table" represents a fact. Of course, Tractarian objects are very different from ordinary, complex objects like tables and chairs.

will maintain that there are objects (also called "things", "entities" or "particulars"). It is just that the existence of objects is not exhaustive when offering an account of the world. Secondly and more importantly, in addition to not being exhaustive, Wittgenstein will maintain that the concept of an object is not a primary explanatory notion in an account of language and world. This contention has its source in the linguistic thesis that Wittgenstein goes on to mention in his elaboration: the context principle. The claim that words have meaning only in the context of a proposition Wittgenstein got from Frege, and Wittgenstein would appeal to versions of the principle throughout his authorship. In his early thinking, the Fregean influence would result in Wittgenstein's taking the concept of an object to be derived from that of states of affairs. In *lieu* of a fuller discussion and defense of the context principle, I shall simply draw attention to some relevant aspects of the principle in early Wittgenstein.

Firstly, the principle ascribes primacy to an account of the workings of language when offering an account of the world. Secondly, there is an insistence that language makes contact with the world at the level of units of language that can be true or false. Single words do not have this feature, while expressions with the complexity of a proposition do. In case the proposition is true, the worldly correlate is a fact. When I said that objects are not exhaustive of what there is, this might suggest that facts are conceived as additional items on a list of what the world consists of, but Wittgenstein maintained ". . . that there are no such things as facts" (Wittgenstein 1979: 123). Such a claim is not meant to deny that some propositions are true and represent facts, but is a characteristically cryptic way of saying that facts and objects are essentially different, logico-syntactically determined ontological categories. Facts cannot be named and should not be considered as complex things that are to be added to a list of what there is. Rather, there are facts, knowledge of which allows us to gather what objects there are.

⁷ For an account of Wittgenstein's appeal to the context principle throughout his authorship, see Reck's "Frege's Influence in Wittgenstein: Reversing Metaphysics via the Context Principle" (1997). Sullivan (2001) offers an exposition of the way the principle influenced the *TLP*. In Hansen 2010, I mount a defense of the principle as a guide to ontological investigations and I point to differences between the use to which Frege and early Wittgenstein put the principle.

Finally, while Wittgenstein distinguished objects from facts by means of formal concepts, and thus subscribed to a version of typed ontology, he also maintained that there can be no *theory* of the types: "The question about the existence of a formal concept is senseless. . . The logical forms are anumerical" (Wittgenstein 1922: 4.1274, 4.128). These claim follow Wittgenstein's introduction of the distinction between formal and proper concepts. Proper concepts are integral to questions of existence, and the example Wittgenstein offers of a proper concept is a count noun. For example, he maintains that "...one cannot, e.g. say 'There are objects' as one says 'There are books". (Wittgenstein 1922: 4.1272) While we can count books by means of the noun "book" and say that there are at least two ("there are books"), the formal concepts are only count nouns by appearance. In effect, this meant that Wittgenstein turned against the idea that we have a genuine count noun, by means of which we can count the ontological categories (such as "object" and "fact"), or the logical categories from which these notions derived.

Count nouns feature centrally in questions of existence, and the idea that we shall pursue below is that on reflection, "world", like other formal concepts, is only *apparently* a count noun. Thus, we will ultimately agree with van Fraassen that "world" is deeply problematic as a count noun. However, as our agreement has very different sources, we will set out by noting that *pace* van Fraassen, "world" certainly *appears* to function as both a count noun and singular term. "World" as a count noun serves to individuate a range of states of affairs that completely make up a way things might be. "The world" – *i.e.* the singular term – denotes that way the world actually is, the totality of facts. Below, our concerns will be purely logical, and not concerned about the question of e.g. mutual interaction of elements of a system. Should there be a range of causally isolated multiverses, we will let the totality of these be designated by "the world".

Assuming that facts matter to an account of the meaning of "the world", we begin our discussion of the logical problems with "the world" on a historical note: In the context of a "natural theology clinch" with Frederick Copleston, Bertrand Russell quipped that "I should say that

⁸ This is the Newtonian inspired conception of a world that Lewis operates with. To him, to be a world is to be to be the maximal number of spatiotemporally related objects, or something analogous to it (cf. Lewis 1986: p. 75f).

the universe is just there, and that's all." Meanwhile, Copleston was putting to use the notion of the world in his argument for the existence of God. Russell seemed keen to question Copleston's appeal to the existence of the world – an attitude that made for a contrast with his own surefooted use of "the world" in the 1910's when he was engaged in logic and metaphysics. As he is likely to have been aware, his concluding expression of generality, "that's all", constituted a fundamental problem for his own earlier attempts at doing metaphysics.

During this earlier period, Russell shared with Wittgenstein the project of logical atomism, and the opening paragraphs of the TLP allude to a problem for the explication of logical atomism. The problem arises from the analysis of the term "the world": "The world is the totality of facts, not of things. The world is determined by the facts, and by these being all the facts." (Wittgenstein 1922: 1.1, 1.11). That is, when offering an analysis of "the world", it will have the logical form, "Fa & Fb & Fc & Gb. . ", where the atomic propositions represent facts from all kinds of subject matters. To ensure that this list of facts is indeed an analysis of "the world" - of everything distinct from God, the existence of whom Kerr and Fergus wish to reserve the possibility of arguing for – we need to be told that these are all the facts there are. If we had left just one fact out, we would have fallen short of our ambition to give expression to what we wanted. And it is with the expression of generality, "all", that the logical trap lies. The trap is spelled out more elaborately further down the paragraphs of the TLP, now in terms of elementary propositions, out of which the *TLP* has it that all language is truth functionally constructed:

The propositions are everything which follows from the totality of all elementary propositions (of course also from the fact that it is the *totality of them all.*) (Wittgenstein 1922: 4.52)

With such formulations, Wittgenstein's point becomes clearer: the general fact adds to the list of facts there are: the way Wittgenstein here presents the analysis makes no distinction between the facts. As Russell (1986b) maintained and David Armstrong (1997) agrees, we are in need of a general fact in order to offer the analysis. This fact will somehow stand

⁹ From a transcription of the famed 1948 BBC programme. See Russell (1986a).

above the rest, ensuring that they indeed are exhaustive of the world in its totality. Without it, we have no totality, only a long conjunction of facts that might or might not make for a complete inventory of the world.

Being purely concerned with logical form, we can for present purposes remain agnostic about the character of Tractarian objects and elementary facts, and whether they will suggest anything like what we ordinarily call subject matters and their facts. Thus, we do not have in mind an actual description of what facts there more exactly are, and can for present purposes stick with Wittgenstein's casual suggestion of "the totality of true propositions being natural science" (Wittgenstein 1922: 4.11), while remaining ignorant of the content of those propositions. What matters is that those engaged in natural theology in the manner envisaged by Kerr and Turner will have to take the general fact seriously, as it is on the basis of the totality that they wish to argue for the existence of God.

4. ARMSTRONG'S TOTALITY FACT

What are we to make of this last totality-fact, expressed by the concluding statement of generality, "these are all the facts"? It seems clear that the expression is of a radically different character than all the other true propositions that make up the description of the world. Let us assume that we have *some* idea of first-level, atomic propositions making contact with the world in virtue of considerations to do with correspondence. In this respect, the general proposition is different: it appears not to be about the world, but about a collection already offered to which nothing "worldly" is added by what the proposition represents. Nevertheless, one cannot from any list of facts in itself conclude that these are all the facts there are: the last fact is needed as long as one wishes to pursue the kind of natural theology or metaphysics that relies on talk about the world. Considerations regarding the nature of the totality fact, i.e. its apparent difference from first level facts, quickly become troublesome if you subscribe to some kind of atomism, with the understanding that a description of the atoms is exhaustive and nothing "nonatomic" -i.e.general – is needed for an account of the world. Of course, this in different ways includes the projects that Russell and Wittgenstein were pursuing, though there was disagreement between the two over the nature of the

atoms. After an outline of the reasoning above, Russell's version of logical atomism (1986b) readily allows the necessary existence of general facts into his account of the world. This move, however, makes the account of the world rather non-atomistic and could not consistently be held by a logical *atomist*, if that term is to have any purchase.

There are at least two strategies regarding the need for the totality fact: one may, like Russell, actually postulate the existence of a generality fact or one may opt for reliance on the Tractarian notion of showing. Armstrong has no atomist commitments, and he therefore does not face the same obstacles in postulating the existence of what he calls a kind of higher-order state of affairs: the totality state of affairs. In addition to what many perceive to be a certain oddness of the totality fact, an oddness we will return to in the following section, the main problem is that postulating the totality fact to offer an analysis of "the world" merely creates another totality that now makes up the world. Even when we allow the higher order totality state of affairs and bracket the questions we may have regarding the nature of the second order fact, it seems we never get what we are after: If we say that the world consists of a number of first-order facts along with a totality fact, that still falls short of what we wanted - we still need to be told that the analysis just offered, now including the second order totality fact, includes all the facts there are. If we don't say that, we have not offered an adequate logical analysis of "the world." If we then add the fact that the first-order facts and the second order totality fact are all the facts there are, then this has generated a third-order fact and so on ad infinitum. The concept of the world appears to fall foul of the vicious circle principle, according to which

"[w]hatever involves *all* of a collection must not be one of the collection"; or conversely: "If, provided a certain collection had a total, it would have members only definable in terms of that total, then the said collection has no total." [...] By saying that a set has "no total" we mean, primarily that no significant statement can be made about "all its members." (Whitehead & Russell 1927: 37)

It is not clear whether Armstrong's solution to this quandary is the same in the two treatments he offers of the problem in Armstrong (1989) and Armstrong (1997). In the latter, Armstrong makes the suggestion that while the first totality fact does make for a richer world – *i.e.* a world with

one more fact – that is not the case with the facts that are generated as we try to give expression to the further totalities. As he formulates it, while the first totality fact does not supervene on the first order facts, the third order fact does (in fact) supervene on second order facts. In effect, his suggestion is that the last proposition in the following conjunction:

Fa & Fb & Fc & Gd . . . and these are all the facts there are. And these are all the facts there are.

does not in the same way add to what we are told about the world: "The regress becomes unthreatening at the point that supervenience occurs." (Armstrong 1997: 198).

According to Armstrong, when *A* supervenes on *B*, *A* does not make the world an ontologically richer place, as it is entailed by *B*. There clearly is no entailment of the first totality fact from the first order facts: You can never infer from a list of the form "Fa & Fb & Fc" that these are all the things that are *F* or that these are all the facts there are. Hence, according to Armstrong's criterion of adding to the world, the last proposition tells us something more about the world. Armstrong then maintains that this is not the case with the yet higher level facts. They are there, but "ontologically harmless."

A quick objection to Armstrong's stance is that he is simply monster barring. He is being unfair to facts along lines that are designed solely to solve the problem at hand. More elaborately, Armstrong runs into type-theoretic problems of exactly the kind that Wittgenstein attempted to overcome in the TLP. Armstrong elsewhere puzzles over the need for concepts like "being a state of affairs", as well as states of affairs corresponding to "There is 'a degree of supervenience" (Armstrong 1989: 95) and seems to allow them. Likewise, Armstrong will need facts that correspond to the true sentences that assure us that the third- and yet higher order facts do not add to the world in its totality. Armstrong cannot allow these facts to be of first or second level, as they would make the world richer for each fact in the infinite regress. But he does need the facts about the higher order facts to feature somehow in his description of the world as a totality for it to be complete, and it is by no means obvious of what level such facts would be. In short, there are strong reasons for suggesting that talk about the world as a totality of facts – though apparently innocuous – gets one involved in reference to an illegitimate totality, and Armstrong does little to convince us that we shouldn't dismiss the totality that makes up the world as an illegitimate one. According to the vicious circle principle, this would mean that the singular term "the world" falls apart in our hands.

5. WITTGENSTEIN'S STRATEGY: "THE WORLD" AS A MATTER OF SHOWING

Russell's answer to such worries relied on versions of type theory. Wittgenstein's *TLP* was highly critical of such solutions, mainly as it came at the cost of the generality of logic. Wittgenstein's *TLP* is amongst other things an exercise in countering the reasons, explored above, for taking "the world" to be an illegitimate totality. A full account of Wittgenstein's evasion of the trap he sets up in the opening paragraphs is intricate and technical. In short, it consists in operating with an "ontologically flat" conception of the world, where all the representation takes place at the level of absolutely specific propositions that have names stand in for objects in state of affairs. From elementary propositions, all meaningful language is built up by means of an infinitary version of the Sheffer stroke, the N-operator.

Besides considerations regarding the nature of logic – the main concern of the *TLP* – there are other related considerations that speak against going down the route Armstrong takes. It is seems odd on epistemological grounds that an entirely new kind of fact is introduced, when one considers the close relation between particular and general facts. For instance, we could make little sense of simply consulting the general fact in trying to find out if all Germans are logicians: it seems a "detour" via the particular facts about Hans, Fritz and all the other Germans is necessary, and identical reasoning will apply to the totality fact. More importantly, if the world is constituted by facts, totality facts and atomic facts alike, a pressing question becomes this: How do two worlds differing only in second order generality facts, while having all the same first-order facts, differ at all? I think we would want to say that

¹⁰ See e.g. the excellent discussion in Sullivan (2000).

the second order fact does not add to the world. John Heil has formulated the intuition well: "I contend that the need for a totality or 'that's all' fact is an artifact resulting from a tendency to conflate representations of ways the world is and ways the world is [...] Suppose God had neglected to decree 'that's all'; suppose God had merely stopped creating [...] Would anything have been left out of the world?" (Heil 2003: 70). Heil answers his rhetorical question with the claim that the totality fact involves no addition to being.

This much ought to reverberate with our understanding of generality and ontology as it is bears on our understanding of "the world". However, while Heil's rhetorical question does good service in explicating what is likely to be a widely shared view, he does little to address the reasoning that leads us to want to say that we need to postulate a totality fact: the equally clear understanding of generality and totality that informs us that a mere conjunction of atomic facts will not provide an adequate analysis of "the world". It is unfortunate that Heil labels the line of thinking that conflates features of the representation of the world with features of the world, "the picture theory". Wittgenstein's picture theory was an integral part of the attempt to overcome the need for postulating general facts.11 The overall drift of the theory was that there was no generality in the world, but that language makes connection with the world at a level of absolute specificity, and that the generality contained in all other language is constructed by means of logical constants that do not represent anything in the world: "My fundamental thought is that the logical constants do not represent. That the logic of the facts cannot be represented." (Wittgenstein 1922: 4.0312). Wittgenstein here uses "vertreten" for "represent" which he reserves for what we might call the ontologically committing level where names stand in for objects.

We may for present purposes leave out the technical innovations in philosophical logic that were involved in the construction of language from absolutely specific propositions. Rather, we shall make a drastic shortcut, also suggested by Armstrong, to the doctrine of showing as it used in connection with the totality. That this notion is relevant to the attempt at speaking about the world in its totality can be gathered from Wittgenstein's presentation of the need for a totality fact above:

¹¹In fairness, it should be mentioned that Heil leaves open the question of the relation between his whipping boy, the picture theory and Wittgenstein's picture theory.

Suppose that I am given *all* elementary propositions: then I can simply ask what propositions I can construct out of them. And there I have *all* propositions, and *that* fixes their limits. (Wittgenstein 1961: 4.51).¹²

When knowing that elementary propositions are characterized by their absolute specificity (*i.e.* lack of generality) and that all the building that takes place is done by means of a powerful, but purely sentential operator, the N-operator, we can make out what Wittgenstein's suggestion comes to.¹³ Wittgenstein is suggesting that the limitation is achieved by a feature of the symbolism, rather than being an expression *in* the symbolism: There simply are no more propositions than the atomic ones and what is constructed from them. Interestingly, we may turn to Armstrong for the same suggestion spelled out in a clearer fashion. He suggests that we

... begin the discussion with quite small and simple worlds, where different positions ... emerge with greater clarity. Consider, then, a world containing just two simple individuals, a and b, with the first having just the one simple property F and the second having just the one simple property G. For the factualist, the world is like this:

(1) Fa & Gb

The conjuncts are states of affairs... We do, I believe, and will later argue, require a higher-order state of affairs: that these are the *totality* of lower-order states of affairs. But that is not of present importance, and we can let it be shown, as opposed to being said, by the absence of any further symbols for states of affairs in formula (1). (Armstrong, 1997: 107)

Rather than making the existence of the world as a totality something that we can make the subject of fact stating language -i.e. something that can be said – the suggestion being made by Wittgenstein and Armstrong, but only seriously pursued by Wittgenstein, is that the existence of this

¹² I here rely on the translation by Pears and McGuinness for what I take to be, in this case, its greater clarity.

¹³ Remarkably, a part of the Tractarian solution to the problems we are surveying is the reduction of first order predicate logic to a version of propositional logic. Wittgenstein thus does away with expressions of generality as we are used to employing them. See e.g. Wehmeier (2004) for an exposition.

totality is something that will have to be shown by the symbolism.¹⁴ As Armstrong puts it, in the absence of generality facts, we may let the existence of the world be something that is shown, rather than spoken about in sentences that represent states of affairs. This showing takes place by the absence of any further facts than those mentioned in the description of a given world. Given complete knowledge of the make-up of the simple world, when we describe it like this:

Fa & Gb

we do not need to add to our representation of the world that these are all the facts there are. Like the Tractarian symbolism, our correspondingly simple language probably wouldn't contain the generality operators to do that anyway. The totality is simply shown by the absence of any further representations. We *see* that that is all.

Of course, the idea of this sort of miniature world is not something we can immediately rely on when seeking a solution to our problem, unless we had specified something equivalent to the elementary propositions in the *TLP*. Our world is far more complex than the simple world conjured up and described above, and its contents, the facts, remain to a great extent unknown to us. We have no sideways perspective on language and world available to us in the way that we do with Armstrong's simple world. No system of representation we possess is adequate to have the totality of facts be shown by the symbolism in this manner. In the *TLP*, the totality is shown in a different way: its existence – but not its actual specification – is a matter of following and accepting what I take to be the overall argument of the *TLP* to the effect that there must be such a totality, given the existence of true or false propositions about the world.

Regardless of these differences, making the world more complex than the simple one created and represented by Armstrong does not alter its basic ontological and logical features: no generality fact enters the world at any point of increased complexity. Only, our expressive powers

¹⁴ Wittgenstein makes the same suggestion to Russell in his notebooks (Wittgenstein 1979: 131), but here regarding Russell's class of all objects, the cardinal number of which Wittgenstein takes to be shown by there being a number of names that stand in for objects.

gradually get outstripped by the world as it increases in complexity, and we begin to rely on expressions of generality to try and express what we can immediately see in the representations of the far simpler worlds, whose constituents are all known to us. We have, after all, created it.

Having confronted Armstrong's postulate of a generality fact, the suggestion remains that we should add "the world" to the list of concepts whose instantiation is shown by language, but which cannot form part of anything that is represented in language. Enigmatically expressed in the way that Wittgenstein at times would resort to, we have not said that the totality is not there, we just run into problems when speaking of it. I am aware of having expressed myself problematically in exactly the same way that Wittgenstein does, when he in the *TLP* frequently tries to speak about that which is shown. For instance, he frequently applies the formal concepts *fact* and *object*, but also says that doing just that is nonsense: their instantiation is shown by well functioning language, and what is shown cannot be said.¹⁵

In the case of the formal concept "thing", the proper expression is the variable: "Wherever the word 'object' ('thing', 'entity', etc.) is rightly used, it is expressed in logical symbolism by the variable name." (Wittgenstein 1922: 4.1272). In suggesting that "the world" has the same features as other formal concepts, we are not suggesting that its proper expression is a variable. In our case, the suggestion is that we have an instantiation of "the world" in the case where we can see that there are no more propositions. Such a totality was never reached in the *TLP*, but its

¹⁵ The relevant passages are: "That which expresses *itself* in language, *we* cannot express by language. [...] What *can* be shown *cannot* be said." (Wittgenstein 1922: 4.121, 4.1212).

¹⁶ It may strike the reader as incredible that Wittgenstein would maintain that we can't *say* that there is an object, while we e.g. can say there is a tree. Accordingly, comparing the present viewpoint regarding "the world" with the formal concept "object" will lend little credence to the viewpoint that "the world" has similar features as formal concepts. Wittgenstein maintains: "Thus a proposition 'fa' shows that in its sense the object a occurs, two propositions 'fa' and 'ga' that they are both about the same object." (Wittgenstein 1922: 4.1211). We see here a case of the apparent self-refutation alluded to above – in so far as Wittgenstein uses "object" not as he otherwise insists it must be used and further, tries to say what is shown. Van Inwagen (2002) confronts the Tractarian viewpoint regarding "object", and presently, I can only refer the reader to Hansen (forthcoming), where I defend the Tractarian viewpoint against van Inwagen's criticism as well as that of others.

postulation should rather be seen as a demand of strands of thought on language and representation in the work. The Tractarian setting aside, neither is it the case that *we* are in reach of such a description.

It is instances of trying to say what is shown that led Wittgenstein to his famous concluding judgment on the work itself: that it lacked sense. Apparent self-refutations are an occupational hazard when trying to explicate Wittgenstein's early thinking, and there will be more below, as I shall keep talking about *that* which is shown – the existence of the world. Nevertheless, the question of unrestricted quantification that Wittgenstein raised at the outset of the *TLP* remains with us, and having confronted Armstrong's solution to the question of unrestricted quantification, we have more reason to pursue the technical details of the Tractarian approach. While we have made a shortcut to the notion of showing, the reliance on this notion ought to gain credence as more details of the Tractarian solution are offered.

6. ASSESSING KERR'S AND TURNER'S ACCOUNTS OF THE POTENTIAL OF NATURAL THEOLOGY

Let us take stock. Initiated by an introduction of formulations in connection with natural theology, we have in fact surveyed what Zermelo in his treatment of set theory called "two polar opposite tendencies of the thinking mind, the idea of creative advance and that of collection and completion. . . ". (Zermelo 1930: 1233). In our case, the creative progress consisted in the forming of yet new totalities, which seemed to make use of the singular term "the world" fall apart in our hands. This it did in so far as use of "the world" is an expression of our capability to embrace totality, a capability that is exercised in set theory ("all sets") as well as in metaphysics ("all the facts" or "the world"). While convictions may differ when it comes to totalities in set theory, I believe we are strongly inclined to think that in the case of metaphysics, our linguistic expressions of all-embracing completeness are indeed mirrored by a fixed, determinable reality: the world. In other words, we are inclined to believe that Armstrong's simple world is an accurate model of the world in the respect of being ultimately fixed and determinable.¹⁷

¹⁷ Sullivan completes his treatment of elements of the Tractarian answer to the ques-

Having made a shortcut to the notion of showing in the treatment of the world as a totality, we have not tried to reconstruct the Tractarian arguments to the effect that there is such a totality. Rather, we have said that like other formal concepts of the *TLP*, the existence of the world will be a matter of what is shown by an adequate symbolism. The existence of the totality will not be assertable by propositions, but will be a feature of a yet-to-be reached description of the world.

Let us return now to our two characterizations of the potential of natural theology and see how the Tractarian position affects them. Turner insisted that a proof of God's existence, in whatever shape, should meet what he called secular conditions for inferential validity, and he took it to be reliant on reference to the world in its totality. If "the world" is only by appearance an unproblematic singular term that can feature in true or false sentences (such as "the world exists"), then its setting in an argument is similarly compromised: If the apparent singular term "the world" does not at all contribute to sentences like ordinary singular terms do, it will, like other formal concepts, not feature in a true sentence, whose truth can be carried to the conclusion in an argument. Such are after all – secular or not – supposed to be truth-preserving. In short, the prospects for the theistic argument that Turner envisages are poor.

While the problematic term may result in statements of nonsense, in so far as what it tries to say is what is shown by an adequate symbolism, a still dominant strand of Tractarian interpretation¹⁸ insists that speaking this kind of "philosophical nonsense" may nevertheless have cognitive potential. In the *TLP*, Wittgenstein's compares knowledge of the formal features of language and world with knowledge of facial features: We

tion of the totality of facts by raising the question whether there is a totality of facts. The question is answered with a guarded "maybe". (Sullivan 2000: 191). Our intuitions that the expression "the world" refers to a fixed, determinable reality may have various sources. One obvious suggestion is the biblical creation narrative. As Tractarian commentators have suggested, its influence can be seen to reach even to the *TLP*, which shares with the creation narrative its seven stages. Another possible source, treated by John Dewey, would be what he calls the Greek metaphysics of contemplation, which would shape scientists' understanding of science for posterity (See e.g. Hickman (1989) for an overview).

¹⁸ Dominant, that is, in the face of "The new Wittgensteinians", exemplified most clearly by Diamond (1991), whose contention is that there is but one kind of nonsense: *mere* nonsense, such as "frabble wabble".

have a very intimate knowledge of faces, but our language for expressing this knowledge is severely impoverished. While thus impoverished, in the case of faces my language can be developed to properly express what I experience. This is not so with those features that, in the *TLP*, are shown. Here the inexpressibility is principled – what is shown cannot be said, but what is shown is shown by means of quite ordinary use of language with which we are all very familiar.

Such an emphasis on the cognitive potential of the logically problematic terms sits well with Kerr's far more guarded expression in his comment on *Vatican I*: Here the emphasis is on the possibility of "reasoning of some kind" from the existence of the world to the existence of God. Such reasoning might not be in the style of propositions whose truth and interrelated structure provide sound arguments. It could nevertheless consist of reasoning and expressions that are able to convey knowledge of an important kind. The fact that someone possesses inexpressible knowledge does not mean that we cannot say something about that knowledge. What we cannot do is describe it as knowledge-that: It is only *that* which we can't say that we can't say. This leaves us with significant maneuvering space for making theological sense of the doctrine of showing and of what appears to be limitations on the expressive powers of our language.

Works that found their way to the *Index Librorum Prohibitorum* would often return to being in good standing and carefully read and taught by Roman Catholic scholars. Likewise, though we have seen reasons to put "the world" on a rather different *index*, one should be hopeful that attempts at talking about the world in its totality, and what I have suggested to be the related doctrine of showing, will find use in constructive and fruitful interaction between "Barthians" and Roman Catholic theologians, who traditionally have been inclined to hold strongly opposed views on the potential of natural theology. ¹⁹

¹⁹ I would like to acknowledge financial support from the The Danish Council for Independent Research | Humanities while writing this paper. I am grateful to audiences at *The Grandeur of Reason* (Rome 2008), Aarhus University and University of Southern Denmark for helpful comments and criticisms on the material. Finally, thanks are due to Anne-Marie Søndergaard Christensen and an anonymous referee for their incisive comments on earlier versions of the paper.

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