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## RUSSELL AND JIN YUELIN ON FACTS: FROM THE PERSPECTIVE OF COMPARATIVE PHILOSOPHY



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### *Introduction*

Jin Yuelin 金嶽霖 (1895–1984) was a Chinese philosopher and logician. From 1914 to 1920 he studied at the University of Pennsylvania and Columbia University, and received his Ph.D. in political science from Columbia in 1920. From 1921 until 1925, he studied in Europe and visited Great Britain, Germany, France, and Italy, among other countries. During these years, he studied at the London School of Economics and Political Sciences and at the University of Cambridge. At the end of 1925, Jin returned to China and soon became a professor at Tsinghua University, where he began teaching logic in 1926. In 1931–1932, Jin went to Harvard University as a visiting scholar to study logic with the logician Henri M. Sheffer (1882–1964). In the 1930s and 1940s, Jin wrote three important books: *Logic* (邏輯) (1936), *On Dao* (論道) (1940), and *Theory of Knowledge* (知識論) (revised in 1948 and published in 1983). Later he became one of the leading figures in the philosophy and logic in China. He held a number of important academic positions such as president of the Chinese Association of Logic.

According to the available biographical material on Jin Yuelin, there is no definite answer whether he personally met Bertrand Russell. He was certainly influenced by Russell and his philosophy, and repeatedly mentions Russell in his publications. Jin recalled that he read *Russell's Principles of Mathematics* (1903) during his stay in London. He was deeply impressed by this work, which to an extent shaped Jin's conception of philosophy. He frankly acknowledged that the third part of his textbook *Logic*, "Introducing a Logical System," almost "directly copied" the relevant parts of *Principia Mathematica* (three volumes, 1910–1913) co-authored by Russell and Whitehead (for more details, see Xu Yibao 2003). In the 1930s and 1940s, Jin published many articles on subjects that included internal and external relations; causality and free will; facts, truth, and falsehood; and the problem of induction and the induction principle. Most of these topics had been discussed by Russell before. Chen Bo (2012) compares the similarities and differences between Jin's and Russell's points of view on Hume's problem of induction. When Jin attended the International Conference of Philosophy in Warsaw, Poland, in July 1957, he titled his speech "A Freeman's Task"

(Jin 1957), which obviously mimics the title of Russell's book *A Freeman's Worship* (1923). Jin's book *Russell's Philosophy* (羅素哲學) was completed in 1965 and published in 1988.<sup>1</sup>

There are a few English studies on Jin Yuelin's philosophy. Both Hu Jun (2002) and Zinda (2012) have studied Jin's ontology, concentrating in his book *On Dao*. In the present article, I will focus on Jin's *Theory of Knowledge*, especially his philosophical investigation of facts. By comparing Jin's views on facts with Russell's, I will show that Jin is not only a follower of Russell's philosophy, but also an original philosopher who thinks independently and develops a new theory of facts different from Russell's.

### *Russell's Realistic Conception of Facts*

Bertrand Russell develops a realistic conception of facts.<sup>2</sup> His core thesis is that the world contains facts, that facts exist in the external world, and that facts should be compiled in the world catalog. By an appeal to logical analysis, he derives varieties of logical atoms: "Some of them will be what I call 'particulars'—such things as little patches of colour or sounds, momentary things—and some of them will be predicates or relations and so on."<sup>3</sup> He combines logical atoms into atomic facts, which are distinct and independent of each other. By means of logical constants, he composes atomic facts into more complex facts, such as general facts and existence facts. His key assumption is that the structure of language reflects the structure of the world, and language (at least logically perfect language) is isomorphic with the world, so it is possible to appeal to the logical structure of language in order to expose the ontological structure of the world. He calls his doctrine "logical atomism."

In what follows, I will reformulate Russell's views on facts in terms of seven theses.

#### *R1. Fact Cannot Be Strictly Defined*

First, facts do not depend on our thoughts and opinions about them, and they make propositions true or false. Russell claims:

The first truism . . . is that the world contains *facts*, which are what they are whatever we may choose to think about them, and that there are also *beliefs*, which have reference to facts, and by reference to facts are either true or false.<sup>4</sup>

I explained last time what I meant by a fact, namely, that sort of thing that makes a proposition true or false, the sort of thing which is the case when your statement is true and is not the case when your statement is false. Facts are . . . plainly something you have to take account of if you are going to give a complete account of the world.<sup>5</sup>

Second, facts have their constituents. Russell says:

When I talk about a “fact,” I do not mean one of the simple things in the world; I mean that a certain thing has a certain quality, or that certain things have a certain relation. Thus, for example, I should not call Napoleon a fact, but I should call it a fact that he was ambitious, or that he married Josephine. Now a fact, in this sense, is never simple, but always has two or more constituents.<sup>6</sup>

Moreover, the constituents of a fact are not other facts, but things, qualities, and relations.

Third, facts cannot be designated by names, but must be expressed by sentences: “you must also take account of these things that I call facts, which are the sort of things that you express by a sentence.”<sup>7</sup> In his *Principle of Mathematics* (1903), Russell considers a proposition to be an objective complex independent of the human mind. A proposition consists of individual(s) and its/their quality or relation in the world. It is now called the “Russellian proposition.” For example:

<Socrates, being a philosopher>, <a, b: being the left of>.

In doing this, propositions are put on a par with facts. Russell later gives up this policy, as he realizes that in order to explain why the proposition “Socrates is not a philosopher” is false, the policy obliges him to acknowledge ontological falsehood in the world:

<Socrates, not being a philosopher>

This consequence is unacceptable.

In his “Introduction” to [Wittgenstein’s \*Tractatus\*](#), Russell writes: “facts cannot strictly speaking be defined, but we can explain what we mean by saying that facts are what make propositions true, or false.”<sup>8</sup> This assertion poses a big problem. We need the concept of “fact” because we want to use it to explain the truth-values of propositions. According to the correspondence theory of truth, if a proposition corresponds to a fact in the world, it is true; otherwise, it is false. If we use the truth of propositions to explain facts, we seem to commit the fallacy of circularity.

## *R2. There Are Atomic Facts in the World*

Here, it is necessary to outline Russell’s distinction between “knowledge by acquaintance” and “knowledge by description.”<sup>9</sup> Knowledge by acquaintance is gained through direct contact with sensible particulars; knowledge by description is gained through the application of concepts, such as “an object is ‘the so-and-so.’” For example, most of us did not have direct sensory contact with Socrates. Our knowledge about him was obtained through historical records and reports by others: Socrates was an ancient Greek philosopher, Plato’s teacher, who was finally sentenced to drink hemlock juice and died, and so on. So this belongs to the sphere of knowledge by description. Russell

thinks that we are just acquainted with sensible particulars, that real logical names only include a few words such as “this,” “that,” and “I,” and that most ordinary names are disguised descriptions. Therefore, real atomic facts include descriptions such as “this is white,” “that is red,” “this is on the front of that,” “this is on the left of that,” and so on. They are expressed by atomic propositions that do not contain any other proposition except themselves, and there is a correspondence between atomic propositions and atomic facts. However, when Russell talks about atomic facts, he also calls “atomic facts” those propositions containing ordinary proper names, such as “Charles I was executed,” or “Socrates loves Plato.”

In Russell’s view, facts have their own structure, and atomic facts are certainly no exception to this point. Let  $a, b, c$ , et cetera be proper names, representing sensible particulars, which could be regarded as individuals in the ordinary sense. Let  $x, y, z$ , et cetera be variables, representing uncertain objects in a certain domain of discourse. Let  $F, G, H$ , et cetera be one-place predicates, representing the qualities of individuals, and let  $R, S, T$ , et cetera be multi-place predicates, representing relations among individuals. The general forms of atomic facts can be expressed as follows:

- $F(a)$ :  $a$  is  $F$ , such as “this is white”;
- $G(b)$ :  $b$  is  $G$ , such as “Socrates is a philosopher”;
- $R(b, c)$ :  $b$  stands in a relation with  $c$ , such as “Napoleon married Josephine”;
- $S(a, x, c)$ : There is a relation  $S$  between  $a, x$ , and  $c$ , such as “John dedicates a beautiful rose to Mary”; thus and so.

In regard to atomic propositions, Russell presents a view that is widely criticized: “A proposition (true or false) asserting an atomic fact is called an atomic proposition. *All atomic propositions are logically independent of each other. No atomic proposition implies any other or is inconsistent with any other.*”<sup>10</sup> Consider the following examples: “This is white,” “This is black.” By any standard, the two propositions are atomic propositions, but they are not logically independent: if one is true, the other is false. Let CB be a person’s name: “CB is in Peking University,” “CB is in Beijing,” “CB is in China,” “CB is in Asia,” and “CB is on Earth.” These propositions are certainly atomic propositions according to the logical standard, but they are not logically independent of each other: if the first proposition is true, then all the following propositions are true; if one of the following propositions is false, then the previous propositions are also false.

It is worth pondering whether the so-called “atomic facts” are atomic and simple because we regard them as atomic and simple, or because they are really atomic and simple in the ontological sense? Take “Socrates is a philosopher” as an example. In my view, this fact is not atomic and simple but quite complex, for it implies many other facts about Socrates: Socrates is a person who has hair, height, and weight; is able to read; possesses a lot of

knowledge; is liable to think deeply; has a strong influence on the young people around him; and so on. In this regard, I think the historian Carl Becker's following assertions are quite stimulating:

What is the historical fact? Let us take a simple fact, as simple as the historian often deals with, viz.: "In the year 49 B.C. Caesar crossed the Rubicon." A familiar fact this is, known to all, and obviously of some importance since it is mentioned in every history of the great Caesar. But is this fact as simple as it sounds? Has it the clear, persistent outline which we commonly attribute to simple historical facts? When we say that Caesar crossed the Rubicon we do not of course mean that Caesar crossed it alone, but with his army. The Rubicon is a small river, and I don't know how long it took Caesar's army to cross it; but the crossing must surely have been accompanied by many acts and many words and many thoughts of many men. That is to say, a thousand and one lesser "facts" went to make up the one simple fact that Caesar crossed the Rubicon; and if we had someone, say James Joyce, to know and relate all these facts, it would no doubt require a book of 794 pages to present this one fact that Caesar crossed the Rubicon. Thus, *the simple fact turns out to be not a simple fact at all. It is the statement that is simple—a simple generalization of a thousand and one facts.*

. . . The truth is, of course, that this simple fact *has* strings tied to it, and that is why it has been treasured for two thousand years. It is tied by these strings to innumerable other facts, so that it can't mean anything except by losing its clear outline. It can't mean anything except as it is absorbed into the complex web of circumstances which brought it into being. This complex web of circumstances was the series of events growing out of the relation of Caesar to Pompey, and the Roman Senate, and the Roman Republic, and all the people who had something to do with these.<sup>11</sup>

### *R3. There Are Negative Facts in the World*

When talking about negative propositions, Russell means single negative propositions like "Socrates is not alive." He regards the words "false" and "not" as strictly synonymous: a proposition like "*a* is *F*" is false if and only if the corresponding negative proposition "*a* is not *F*" is true. Perhaps because of this, he seldom takes "not" as a propositional connective. When deciding whether or not a proposition is negative, one must consider not only the word "not" inside it, but also the word-meanings contained therein; that is, if the meanings of the words contained in this proposition are incompatible, then a pair of related propositions are mutually negative, such as "this is white" and "this is black." It is quite surprising that Russell, as a logician, disregards the formal signs of negation.

Russell then asks if there is a negative fact that corresponds to a negative proposition. More specifically, can you call as fact what corresponds to the proposition "Socrates is not alive?" He states that he always affirms

negative facts in his previous speeches: if one says "Socrates is not alive" and this saying is true, there is the fact in the real world that Socrates is not alive. Although this view caused a lot of criticism and even a riot during his lecture at Harvard University, after carefully thinking about various objections Russell claims: "I think you will find that it is better to take negative facts as ultimate. Otherwise you will find it so difficult to say what it is that corresponds to a proposition."<sup>12</sup> This assertion is compatible with his other assertions: "There are, of course, two propositions corresponding to every fact, one true and one false. There are no false facts, so you cannot get one fact for every proposition but only for every pair of propositions. All that applies to atomic propositions."<sup>13</sup> Consider a pair of propositions that are mutually negative: "Socrates is alive," "Socrates is not alive." If the atomic fact that Socrates is alive obtains, it makes the former proposition true and the latter false; if the atomic fact that Socrates is not alive obtains, it makes the latter true and the former false. Therefore, when asserting that in a pair of propositions that are mutually negative, one of which is either true or false, we do not exclude the existence of negative facts, and even require it. Some scholars disagree: in order to account for the truth of negative propositions, we need not posit negative facts. Instead, we can use the absence of facts. Russell's rejoinder is: "But the absence of a fact is itself a negative fact; it is the fact that there is not such a fact as *A* loving *B*. Thus, we cannot escape from negative facts in this way."<sup>14</sup> However, he adds the qualification that "I do not say positively that there are [negative facts], but there may be."<sup>15</sup> Positing negative facts will produce many theoretical troubles, which I will discuss further below.

#### *R4. There Are No Compound Facts Corresponding to Molecular Propositions*

Let atomic propositions be symbolized by *p*, *q*, *r*, et cetera. Molecular propositions are formed from atomic propositions by logical connectives, such as "not-*p*," "*p* or *q*," "*p* and *q*," "if *p* then *q*," "*p* if and only if *q*." Here is a question: is there a compound fact that corresponds to other molecular propositions except negative ones? Russell replies:

I do not think any difficulties will arise from the supposition that the truth or falsehood of this proposition "*p* or *q*" does not depend upon a single objective fact which is disjunctive but depends on the two facts one of which corresponds to *p* and the other to *q*: *p* will have a fact corresponding to it and *q* will have a fact corresponding to it. . . . Generally speaking, as regards these things that you make up out of two propositions, the whole of what is necessary in order to know their meaning is to know under what circumstances they are true, given the truth or falsehood of *p* and the truth or falsehood of *q*.<sup>16</sup>

However, Russell's argument above seems to conflict with his policy of positing negative facts. From the truth-value of *p* we can know the truth-value



of not- $p$ : if the former is true, the latter is false, and if the former is false, the latter is true. Therefore, it is only necessary to posit affirmative facts corresponding to affirmative propositions, without the necessity to posit negative facts corresponding to negative propositions. Perhaps Russell could reply to the challenge by *reductio ad absurdum*: following this reasoning, since we can know the truth-value of  $p$  from the truth-value of not- $p$ , we can only posit negative facts without the necessity to posit positive facts.

#### *R5. There Are General Facts and Existence Facts in the World*

Russell calls those formulas with one or more free variables “propositional functions,” such as “ $x$  is a philosopher,” “ $x$  loves  $y$ ,” and, more generally, “ $F(x)$ ,” “ $R(x, y)$ .” They have no definite truth-value. Only after all the variables are replaced by specific individuals, or all the variables are bound by quantifiers, will they become propositions with certain truth-values, such as  $F(a)$ ,  $\forall xF(x)$ , and  $\forall x\exists yR(x, y)$ . Then, we will meet a question: to what kind of facts in the world do quantificational propositions correspond? Consider universal quantifications like  $\forall xF(x)$ . Russell argues that they correspond to “general facts” in the world. Suppose a finite domain. It seems that  $\forall xF(x)$  can be rewritten as a finite conjunctive proposition:  $F(a) \wedge F(b) \wedge F(c) \wedge \dots \wedge F(n)$ , which is usually considered to exhaust the meaning of  $\forall xF(x)$ . But, in fact, we have to add another sentence: there are no other individuals except  $a$ ,  $b$ ,  $c$ , . . . , and  $n$ . Here, a universal quantifier is implicit in the additional sentence. Therefore, in order to identify the truth-value of a universal sentence, it is not enough to admit only many particular facts, and it is also necessary to admit that there are general facts such as “every man is mortal.” Russell comments:

It is perfectly clear, I think, that when you have enumerated all the atomic facts in the world, it is a further fact about the world that those are all the atomic facts there are about the world, and that is just as much an objective fact about the world as any of them are. It is clear, I think, that you must admit general facts as distinct from and over and above particular facts.<sup>17</sup>

Russell claims that beside general facts, we have to admit existence-facts:

Of course, it is not so difficult to admit what I might call existence-facts—such facts as “There are men,” “There are sheep,” and so on. Those, I think, you will readily admit as separate and distinct facts over and above the atomic facts I spoke of before. Those facts have got to come into the inventory of the world, and in that way propositional functions come in as involved in the study of general facts.<sup>18</sup>

#### *R6. It Is Not Certain Whether There Are Facts Relevant to Propositional Attitudes*

Russell considers the propositions reporting beliefs, knowledge, hopes, desires, et cetera. He calls them “propositions with two or more verbs.” For



example, "Othello *believes* that Desdemona *loves* Casio," "Paul *wishes* that Hillary Clinton would be *elected* as the president of the United States," and "Mary *hopes* that Robert will *love* her." Do these kinds of propositions correspond to the facts in the world? If so, to what kind of facts do they correspond? Russell seems not to endorse the ternary analysis of "Othello believes that Desdemona loves Casio": Othello believes that Desdemona loves Casio, that is to say, there is a believing relation between a cognitive subject and a proposition—or, more generally,  $B(x, p)$ , where  $B$ 's position can be replaced by any propositional attitudes like "know," "believe," "suspect," and "desire." However, Russell has no stable views on how to analyze such propositions. Sometimes he thinks that the proposition " $S$  believes that  $a$  stands in relation  $R$  to  $b$ " should be analyzed as quaternary relations among  $S$ ,  $a$ ,  $R$ , and  $b$ , corresponding to an atomic fact among the four items. Sometimes he thinks that the proposition means that  $S$  is in a mental state that has some sort of a causal relation with the objects talked about, so that it corresponds to the fact being relevant to a certain mental state of  $S$ . Sometimes he thinks that the proposition expresses the tendency of the believer, namely  $S$ , to act in a certain way. In sum, Russell does not give a definitive answer to the question: do sentences about propositional attitudes correspond to the facts in the world?

#### *R7. There Is No Fact about the So-called Fictional Entities in the World*

Russell considers questions such as: How do we analyze definite descriptions (hereafter "descriptions") like "the present king of France"? Do propositions like "The present king of France is bald" correspond to facts in the world? To what kind of facts do they correspond?

Russell holds two basic ideas about logical proper names like "this," "that," and "I": they all refer to objects, namely sensible particulars; their meanings are the objects to which they refer. Assuming descriptions are referential phrases like logical proper names, we will encounter three puzzles.

(1) *The rule of identity substitution fails.* Consider the sentence "George IV would like to know whether or not Scott is the author of *Waverley*." In fact, Scott is the author of *Waverley*. By using "the author of *Waverley*" as a substitute for "Scott" in the sentence, we will get "George IV wants to know whether or not Scott is Scott," which is obviously false, because George IV is not interested in the law of identity, and it is not the case that he does not know that law.

(2) *The law of excluded middle fails.* According to this law, one of the two propositions " $A$  is  $B$ " and " $A$  is not  $B$ " must be true. Since there is no king in France right now, both "the present king of France is bald" and "the present king of France is not bald" are false.

(3) *The paradox of existence.* Consider the proposition "The present King of France does not exist." If it is true, then its subject has no reference, and accordingly it is meaningless. The proposition with a meaningless subject is

also meaningless; if it is false, then “the present king of France” refers to an existential object, and so it is meaningful, and the proposition about its referent is also meaningful. Thus, the sentence cannot be both meaningful and true.

In order to deal with these puzzles, Russell chooses to distinguish strictly descriptions from logical proper names, aiming to show that descriptions are no longer referential phrases. In his analysis, the sentence “The present king of France is bald” is equivalent to the conjunction of the three sentences as follows:

- (i) There is at least one present king of France;
- (ii) There is at most one present king of France;
- (iii) Whoever is the present king of France is bald.

The conjunction can be symbolized as  $\exists x (F(x) \wedge \forall y (F(y) \rightarrow (y=x) \wedge G(x)))$ . Thus, descriptions like “the present king of France” are decomposed into the combinations of predicates, logical connectives, and quantifiers, and are no longer referential phrases. Since only those individuals in the real world exist, we need not recognize fictional entities such as the present king of France as the referent of the description “the present king of France.” In this way, we comply with Occam’s razor: “entities must not be multiplied beyond necessity,” which ensures “the robust sense of reality” that Russell thinks we should keep in the study of philosophy and logic. His analysis of descriptions was once called “the paradigm of metaphysical analysis.”

Russell further regards ordinary names such as “Socrates” and “Hamlet” as disguised descriptions. It is possible to use the method given above to eliminate ordinary proper names, that is, to “translate” a proposition with ordinary proper names into a proposition without them, instead of with variables, predicates, logical connectives, and quantifiers. The translated proposition is equivalent to the original ones as far as their meanings and truth-values are concerned.

Russell puts forward a slogan as the guiding principle of his philosophy: “Wherever possible, logical constructions are to be substituted for inferred entities.”<sup>19</sup> This is accomplished in two steps: (1) “Analysis”: analyze complex items into simple ones, until logical atoms unanalyzable are obtained. (2) “Integration” or “construction”: the combination of logical atoms gives rise to atomic facts; atomic facts are combined into more complicated facts, such as general facts and existence-facts by means of logical constants; and, finally, we get physical objects, classes (or sets), others’ minds, and even the entire external world step by step. “[T]he point of philosophy is to start with something so simple as not to seem worth stating, and to end with something so paradoxical that no one will believe it.”<sup>20</sup>

Russell’s procedure of analysis and construction can be illustrated in [Table 1](#).

According to Russell, in this way we shall arrive at a system of knowledge built on the basis of atomic propositions plus logical connectives

Table 1. Isomorphism

Language (propositions)	Isomorphism	The World (facts)
Basic Level		
atomic propositions		atomic facts
logical proper names		sensible particulars
1-ary predicates		qualities
n-ary predicates ( $n > 1$ )		relations
Constructive Levels		
negative propositions		negative facts
other kinds of molecular propositions except negative ones		no specific corresponding entities, depending on atomic facts
logical connectives		no corresponding entities
quantificational propositions quantifiers		general facts, existence-facts no corresponding entities
propositions reporting belief, etc.		no obviously corresponding entities
definite descriptions: non-denoting phrases		no corresponding entities
proper names: disguised descriptions		individuals: logical constructions
general names		classes: logical constructions

and quantifiers. At the same time, we shall arrive at a metaphysical system constructed from logical atoms (sensible particulars, qualities, and relations). For Russell, these two systems clearly reflect the isomorphism between our language and the world. But there is a troublesome question here: is this kind of isomorphism between our language and the world a real existence? Or is it just our theoretical fiction? I prefer the latter answer, but of course have not enough space to prove it in this article.

### *Jin Yuelin's Cognitivist Conception of Facts*

In my view, Jin Yuelin develops a cognitivist conception of facts. His core thesis is that facts are the given that is accepted and arranged by humans. In other words, facts are the epistemic constructions that cognitive subjects build on the basis of sensory material. Facts are both objective and subjective. His conception of facts is radically different from Russell's. In what follows, I will reformulate Jin's views of facts also as seven theses.

#### *J1. Facts Are the Given Accepted and Arranged by Cognitive Subjects*

According to Jin, facts are the items in the space and time of nature, and are the given accepted or arranged by humans, but our ideas of space and time are very fundamental to accepting and arranging the given: they will

transform the given into facts. "A fact is a mixture: it is a mixture of ideas and the given. We could either say that a fact is the given clothed with ideas, or say that it is the idea filled with the given."<sup>21</sup>

It is necessary here to explain Jin's terminology. There are two interpretations of his word 所與, the "given." One is biased toward realism, where the given is the external object(s) given to us in sensory experience. The other is biased toward empiricism, where the given is the subjective perception of external objects, such as Russell's "sense-datum." Jin is inclined toward the latter. For him, the given are the functions of external objects on our sensory organs that are perceived and retained in our sensations. They are the starting points of our cognition and the sensory material that generate our knowledge. His word 意念, "idea," roughly amounts to "ideal," "concept," or "category," and belongs to the range of what he calls "the tools of accepting and coping with the given," including habits, memories, imagination, will, belief, induction, languages, abstraction, space and time, kinds, causation, metrics, and so on. Jin believes that ideas are both descriptive and normative. When used to "normalize" others, ideas are actually used as some standard or criterion. For example, when using the idea "table" to accept X and using "chair" to accept Y, we actually think that both X and Y meet the standards of "table" and "chair," respectively. If we use ideas to accept and arrange the given, we get "facts" such as "X is a table" and "Y is a chair." So, facts involve the judgmental elements from cognitive subjects. Jin introduces a very important slogan: 化所與為事實, "to transform the given into facts."<sup>22</sup> The implication of this slogan is that the given are not facts; only after we accept and arrange them with ideas are they transformed into facts. So, facts are certainly not purely objective existence waiting for our discovery, but rather cognitive constructions we have built based on our sensory material.

In his article "On Facts,"<sup>23</sup> Jin distinguishes between "situations" and "facts." Situations exist in the external world. Facts involve humans' cognition and must be known to us:

Facts must have a to-be-known-relation with us. . . . Situations exist outside our knowledge, and can become facts, but we cannot say that they are facts. When saying that they are facts, we already know that they are facts. That is to say, the relation between knowledge and facts [here, "facts," in my understanding, should be replaced by "situation"] is the relation of discovery rather than of creation, but discovering a situation is not a simple case, for it involves the tools humans use for dealing with nature. For varieties of facts, the degrees of their complexity are different: the more complicated the facts are, the more it is needed to include cognitive tools and human perceptual components.<sup>24</sup>

Carl Becker's view of historical facts is quite close to Jin's view of facts above. In answering why different generations of people have different views on the same historical event, Becker says:

[O]ur imagined picture of the actual event is always determined by two things: (1) the actual event itself insofar as we can know something about it; and (2) our own present purposes, desires, prepossessions, and prejudices, all of which enter into the process of knowing it. The actual event contributes something to the imagined picture; but the mind that holds the imagined picture always contributes something, too. This is why there is no more fascinating or illuminating phase of history than historiography—the history of history: the history, that is, of what successive generations have imagined the past to be like.<sup>25</sup>

### *J2. One Thing or Event Implicitly Contains an Infinite Number of "Facts"*

Jin considers the difference between "facts," "things," and "events." In regard to their linguistic expressions, things and events are referred to by names, while facts are expressed by sentences. Things have their residence, and events have their start and end. They all have their spatio-temporal positions in nature. They can exist in the past but are annihilated in the present. In contrast, facts contain space-time components but are not bound by natural space-time. Once being existential, they will exist forever. Suppose Confucius once had a table when he was alive; although the table is gone, the fact that "Confucius had a table" will exist forever. Jin has given a very important insight here: one thing itself is not a fact, but if we carefully observe it, "we may find many facts about it. We may say that one thing is a premise at which a big pile of facts locates." "Not only a thing itself is a premise at which a big pile of facts locates; as far as its relations with other things are concerned, it also involves another big pile of facts."<sup>26</sup>

Look at the table in front of us. It has its constituent material, shape, appearance, uses, its production year, its history, its cultural value, and even its market price. Moreover, the table also has close or distant relations with other things in the world. For example, it is surrounded by several ancient chairs; there are flowers and some exquisite porcelain on the table; the ceiling is above the table, and there are chandeliers on the ceiling; the table is placed in a hotel room with a long history; it was owned by a noble family. . . . Furthermore, it is possible to superimpose new facts on the basis of old facts about the table: if "John loves this table" is a fact, then "Paul dislikes to see that John loves this table" and "Robert does not want to see that Paul dislikes to see that John loves this table" may also be facts. In this way, we will find unaccountable facts about the table, and even arrive at an infinitely hierarchical system of facts about it. Thus, there is an infinite number of "facts" awaiting us to find even from one thing or event. Actually, these potential "facts" can't really be counted as "facts"; at most they can be counted as "silent facts" beyond the current sphere of our cognition, but leaving room for future expansion of our cognition.

### *J3. There Are No Negative Facts in the World, for Facts Have No Distinction between Positive and Negative*

Jin argues that propositions can be divided into affirmation and negation, but facts cannot be distinguished into positive and negative ones. For him,

there are two types of negative propositions in the broad sense: one includes “not” inserted into propositions, such as “Roosevelt is *not* in Kunming,”<sup>27</sup> “Some birds do *not* fly,” “All children are *not* married.” Another includes “not” as a negation to a proposition, such as “*not*-p,” “*not*-(p and q).” Probably influenced by Russell, Jin only considers the first type of negative proposition. In his view, the word “negative facts” does not refer to “false facts”—a self-contradictory phrase. Nor does it mean “non-facts” or “not being facts”; it should refer to *negative* facts. Jin claims that there are no negative facts, and offers two reasons for his claim. First, negative facts seem to supervene upon positive facts, and from a positive fact we can infer countless negative facts. If the real situation is that Roosevelt is in Washington, from this we can infer that Roosevelt is not in Kunming, not in Beijing, not in China, not in London, not in Germany, not in Europe, not in Africa, not in Antarctica, not on the moon. . . . The world is full of such “negative facts,” which are infinite in number. Does the proposition that “Roosevelt is not in Kunming” then correspond to the fact that Roosevelt is in Washington, or to one of the “negative” facts? Among these “negative” facts, to which one does the proposition correspond? Why? None of these questions can be easily made clear.

Second, negative facts have no sensory evidence, whether direct or indirect; and they cannot be perceived, whether directly or indirectly. Take “Roosevelt is not in Kunming” as an example. If this proposition is true, in Kunming we will not see Roosevelt, but see those people who are not Roosevelt. We have no evidence for “Roosevelt is in Kunming.” Jin maintains that what has no sensory evidence cannot be called a “fact,” and concludes: “There are factual bases for true negative propositions, but there are no negative facts.”<sup>28</sup> If a true, particular, and negative proposition like “*a* is not *P*” represents a fact, then the positive proposition is contradictory to the former, that is, “*a* is *P*” does not represent a fact, and from this we cannot infer that it affirms a negative fact.

#### *14. There Are No General Facts in the World, for All Facts Are Particular and Special*

Jin argues that there are general propositions in our language, but there are no general facts in the world. For him, the word “general” has two senses: one is to cover all cases in a certain field, another is to transcend the space-time of nature. In Jin’s view, there are many kinds of general propositions, such as logical propositions, the propositions expressing natural laws, experience-generalizations in a certain area like “all birds fly,” and historical summary propositions like “Qing dynasty people have dreadlocks,” et cetera. He thinks that logical propositions are tautologies saying nothing about the world, so they have nothing to do with facts. Natural laws are intrinsic principles of nature, not general facts:

Obviously principles are not facts. Principles can be found by us, they have no happening; but facts have happening. While particular things and events

manifest principles, principles are not particular and special. Principles can be divided into real and fictional ones. Although we can find a real principle by an appeal to this or that fact, the real principle does not equal this or that fact, and even not equal this or that group of facts. Fictional principles are certainly not facts. . . . True general propositions do not represent or affirm facts, let alone general facts.<sup>29</sup>

To verify general propositions as experiential generalizations, we must first set up a specific domain, and examine particular facts about the individuals with specific conditions of space-time in the domain. For example, in deciding whether "all birds fly" is true or false, we must observe birds under specific conditions of space-time one by one to see whether they fly. If several birds are found not to be able to fly, the general proposition is falsified; if many birds are found to be able to fly, it is confirmed to some extent. Following this procedure, we will obtain particular facts about particular birds. There is no way to find a general fact corresponding to the general proposition. Jin concludes that facts cannot be general, as both general facts and general individuals are paradoxical.

#### *J5. There Are No Future Facts, for All Facts Are Past or Current*

Jin states that we can talk about what will happen in the future, but there is no future fact. He presents two reasons. First, there is a temporal series  $t_1, t_2, t_3, \dots, t_n$ , where  $t_1$  is present,  $t_2, t_3, \dots, t_n$  are the future of  $t_1$ . At  $t_1$ , we can of course predict what will happen at  $t_2, t_3, \dots, t_n$ , but we should keep in mind that in doing so we are actually talking about some possibilities in the future of  $t_1$ , not talking about future facts. What will happen might actually have happened later, but it might not have happened at all. In the latter case, we made a wrong prediction. Facts are always past or current, so there are no future facts. Second, facts involve our acceptance and arrangement. In order to accept and arrange them, we have to find out that they are thus and so; that is, only after we find out that they have happened can we accept them as facts. We must wait for their happening. Since the things of the future do not really happen, we are not in a position to accept and arrange them, so they are not facts.<sup>30</sup>

#### *J6. There Are No Unknown Facts, for All Facts Must Be Known to Cognitive Subjects*

Jin argues that since facts are what we accept and arrange with ideas, according to their nature, facts belong to the sphere of our knowledge and so must have been known to us. Therefore, there are no facts that we do not know or never have known. "Nature does not have to be 'actually' experienced by us in order to be what it is, but facts must be 'actually' perceived by us in order to be facts."<sup>31</sup> This is not to say that we have experienced or known all "facts." Since we always pursue new knowledge, our knowledge is constantly in the process of change and growth, and the



facts we know will be expanded with our knowledge. Facts and knowledge always go hand in hand, and the boundaries of facts extend together with the boundaries of knowledge.

Jin carefully clarifies the exact meaning of his assertion “there are no unknown facts.” After distinguishing between “the whole human community as cognitive agent” and “individuals as cognitive agents,” he argues that there are no facts unknown by the whole human community, that is, unknown by any member of our community, for these kinds of “facts” conflict with the nature of facts: to be accepted and arranged by cognitive subjects. However, there are facts known by some members of the community but not by other members.<sup>32</sup> This is obvious, since what the best scientists know is far more than what the average person knows, and what the experts in specific fields know is far more than what nonprofessionals know. It is this situation that makes it necessary to exchange information and knowledge among different cognitive agents.

When discussing “what is the historical fact,” Becker expresses insights similar to Jin’s views:

[A] fact which is not only dead, but not known ever to have been alive, or even known to be now dead, is surely not much of a fact. At all events, the historical facts lying dead in the records can do nothing good or evil in the world. They become historical facts, capable of doing work, of making a difference, only when someone, you or I, brings them alive in our minds by an appeal to pictures, images, or ideas of the actual occurrence. For this reason I say that the historical fact is in someone’s mind, or it is nowhere, because when it is in no one’s mind it lies in the records inert, incapable of making a difference in the world.<sup>33</sup>

### *J7. Facts Have “Hardness” and “Softness”—That Is, They Are Both Objective and Subjective*

Jin argues that facts do have “softness,” that is, subjectivity, for facts contain the acceptance and arrangement from our ideas and theories, judgmental factors from cognitive subjects, and our subjective initiatives. The statement that “things have to be achieved by humans” reveals the softness of facts. We can plan for tomorrow, and our plans sometimes succeed. We can use causation or available facts or erudition to influence, change, or control the future. In doing so, we are actually creating facts. This is the “softness” of facts. If facts do not have this kind of softness, our revolution, reform, or other changes will be impossible.

However, facts have more “hardness,” that is, objectivity. The facts contain unalterable components and factors. Facts have their own order and the order added to them by us; they are not in total disorder. The given present depends on not only the intrinsic principles of things, but also the pattern or structure of our ideas, and other contingent factors. All of these are beyond our control.

Jin says, facts are the given accepted by our ideas. On the one hand, they receive both the order of the given and the order of our ideas. On the other hand, they inherit the hardness of the given and the hardness of our ideas. In addition to these two aspects, the hardness of facts is acknowledged by most people. We have no way to deny facts, and have no way to change them. . . . We can only recognize and accept the “reality” of facts, and have no other choice.<sup>34</sup>

### *Comparison and Comments*

I want to make four comments concerning Jin’s and Russell’s conceptions of facts.

First, Jin is not only a follower of Russell’s philosophy, but an original philosopher who thinks independently. He develops a conception of facts that is completely different from Russell’s views. Jin reaches many conclusions about facts that are directly contrary to Russell’s.

Russell develops a realist conception of facts. His core thesis is that the world contains facts, and facts are in the external world. Included in his key assumptions are that the structure of language reflects the structure of the world, and language (at least logically perfect language) is isomorphic with the world, so we can infer the structure of the world from the structure of language, and vice versa. Through logical analysis he arrives at “logical atoms,” including sensible particulars, qualities, and relations. The combination of logical atoms gives rise to atomic facts. Atomic facts are composed into negative facts, general facts, and existential facts through negation and quantifiers. Russell appeals to the logical structure of language in order to explain the ontological structure of the world. He calls his own doctrine “logical atomism.” His views of facts can be reformulated as seven theses:

1. Facts cannot be strictly defined.
2. There are atomic facts in the world.
3. There are negative facts in the world.
4. There are no compound facts that correspond to other molecular propositions except negative ones.
5. There are general facts and existence-facts in the world.
6. It is not certain whether there are facts relevant to propositional attitudes.
7. There are no facts about the so-called fictional entities in the world.

Jin develops a cognitivist conception of facts. His core thesis is that facts are the given accepted and arranged by cognitive subjects. In other words, facts are epistemic constructions that cognitive subjects accomplish on the basis of sensory material, so they are both objective and subjective. His views on facts also can be reformulated as seven theses:

1. Facts are the given accepted and arranged by cognitive subjects.
2. One thing or event implicitly contains an infinite number of “facts.”

3. There are no negative facts in the world, for facts have no distinction of positive and negative.
4. There are no general facts in the world, for all facts are particular and specific.
5. There are no future facts, for all facts are past or current.
6. There are no unknown facts, for facts must be known to cognitive subjects.
7. Facts have both softness and hardness, in other words, they are both subjective and objective.

Second, Russell's realistic conception of facts has encountered insurmountable troubles. The first major difficulty is how reasonably to account for the isomorphism of the world with perfect language. According to Russell, the structure of language parallels the structure of the world, so we can infer the structure of the world from the structure of perfect language. It is this isomorphism that makes Russell recognize atomic facts, negative facts, general facts, and existence facts, but these items are difficult to clarify. Is this kind of isomorphism a real existence or a sort of theoretical fiction? I am inclined to take it as the latter. Perhaps being conscious of this situation, the later Wittgenstein completely abandoned his picture-theory and its many conclusions in his *Tractatus*.

The second major difficulty is related to the previous difficulty about the question of how to clarify the relationship between facts and propositions. Jin writes: "Sometimes we really feel that propositions are easy to say clearly, but facts are difficult to say clearly. Instead of characterizing propositions from facts, it is better to talk about facts on the basis of propositions."<sup>35</sup> Russell changed his views on facts (although this article does not have the space to show his change), as it is this change that explains why he never characterized facts clearly. Sometimes he emphasizes that facts exist in the world, and make the corresponding propositions true or false. Sometimes he says that facts are the contents of true affirmative propositions. Then, we meet the obvious circular explanations: interpreting the truth of propositions by virtue of facts, while interpreting facts by virtue of the truth of propositions. Russell also claims that facts cannot be strictly defined. He actually takes the path of "to account for facts by means of propositions." In this way, he has to answer the following questions: Between a fact and a proposition, which depends on which? Which explains which? Does a fact come first, and then we use a proposition to describe the fact? Or does a proposition come first, and then we look for a fact by means of the proposition? If the situation is the latter, it is obviously in conflict with the claim that facts objectively exist in the world. There is a lot of incoherence and inconsistency in Russell's views on facts.

Third, compared to Russell's realistic conception of truth, Jin's cognitivist conception of facts is more coherent and less in tension. But it also faces

many troubles. The biggest trouble is how to answer the following questions: If facts are epistemic constructions that cognitive subjects build on the basis of sensory material, could such “facts” be reliable starting points for our cognition? Could they also be reliable foundations for testing the truth of propositions, assumptions, conjectures, and theories? How should we explain the objectivity and reliability of our theory, especially our knowledge of the natural world? What exactly is truth? How do we define, characterize, and verify truth? And so on. Jin’s cognitive conception of facts also has to answer the following questions: What, in the final analysis, are “facts” and “propositions”? Which depends on which? Which explains which? Of the hardness and softness, that is, the subjectivity and objectivity of facts, which is dominant? Which is secondary? And so on.

Fourth, I am critical of Russell’s realistic conception of facts; I have more sympathy with Jin’s cognitivist conception and will try my best to develop and refine the latter. I once argued the following viewpoints about fact and evidence in a published paper.<sup>36</sup>

In my view, facts are what cognitive subjects, with their intention, purpose, and goal, by using certain cognitive means and methods, consciously cut, collect, and extract from situations and matters in the external world; so they are a mixture of objective and subjective elements. Facts so understood are taken to be “evidence” in scientific research and in judicial trials. Based on this kind of evidence, scientific research and judicial trials are difficult to do without error and mistake, so both of them establish a whole set of operational procedures and mechanisms for error prevention and error correction. Juridical trials should sincerely pursue “procedural justice” in order to ensure “substantial justice.” In China, the guiding principle of juridical trials is at best changed from the old slogan “take facts as the basis, take law as the criterion” to the new one, “take evidence as the basis, take law as the criterion.”

Of course, I have to do a lot more hard work to develop my own theory of facts and evidence.

## Notes

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1 – For biographical material on Jin Yuelin, see Liu Peiyu 刘培育 (Liu 2010).

- 2 – Since Russell often changes his philosophical position and because the space of this article is quite limited, I will not examine the development of Russell’s conception of facts, and focus only on what he says about facts in, e.g., his “Philosophy of Logical Atomism” (Russell 1919).
- 3 – Russell 2010, p. 3.
- 4 – Ibid., p. 6.
- 5 – Ibid., p. 18.
- 6 – Russell 1914, p. 41.
- 7 – Russell 2010, p. 8.
- 8 – Russell 1921, pp. xiii–xiv.
- 9 – See Russell 1912, pp. 46–59.
- 10 – Russell 1921, pp. xiv–xv; italics added.
- 11 – Becker 1955, pp. 328–329; italics added.
- 12 – Russell 2010, p. 45.
- 13 – Ibid., p. 38.
- 14 – Russell 1956, p. 288.
- 15 – Russell 2010, p. 42.
- 16 – Ibid., p. 39.
- 17 – Ibid., p. 71.
- 18 – Ibid.
- 19 – Russell 1918, p. 115; italics original.
- 20 – Russell 2010, p. 20.
- 21 – Jin 1983, p. 741.
- 22 – Ibid., p. 739.
- 23 – In my judgment, Jin’s article “On Facts” (1931) is not a preliminary short version of chapter 14 (“Facts”) of his book *The Theory of Knowledge* (finished in 1948, published in 1983), for there are many differences between the two texts. We can find the differences even from the section titles of the two texts. The article has eight sections: what facts are not; what facts are; perceptual elements and intrinsicness; human elements and intrinsicness; intrinsicness and non-intrinsicness; facts and knowledge; facts and propositions; and counter-facts and non-facts. The chapter has seven sections: nature and facts; facts, things, and events; facts and generality; positive or negative facts; facts and future; facts and knowledge; facts and theories. The present article

is not the right place to engage in a careful comparison of the similarities and differences between the two texts.

- 24 – [Jin 1931](#), p. 1315.
- 25 – [Becker 1955](#), p. 336.
- 26 – [Jin 1983](#), pp. 742–743.
- 27 – Kunming is a city located in the southwestern part of China. When Jin wrote his *Theory of Knowledge* in the 1940s, he was a professor at Southwest United University in Kunming.
- 28 – [Jin 1983](#), p. 762.
- 29 – *Ibid.*, p. 751.
- 30 – See *ibid.*, pp. 768–769.
- 31 – *Ibid.*, pp. 769–770.
- 32 – See *ibid.*, pp. 771–775.
- 33 – [Becker 1955](#), pp. 331–332.
- 34 – [Jin 1983](#), pp. 738–741, 782–784.
- 35 – *Ibid.*, p. 749.
- 36 – See [Chen Bo 2017](#), p. 22.

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