A Dialogue on Understanding

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Abstract

This paper written as a dialogue between two interlocutors, Julie and a Student, deals with Understanding and its role in the social sciences. The fictional dialogue takes place in Hannover, Germany and the interlocutors are exchanging arguments about *Verstehen* and how it should be conceptualized in the philosophy of the social sciences. A range of different approaches is discussed and a naturalistic strategy emerges as a defensible alternative.

STUDENT: Here we are. This is the Leibniz memorial!

JULIE: Quite impressive, this larger than life-size bronzed head of Leibniz!

STUDENT: Indeed, it is 2.5 metres high.

JULIE: One does expect to see a Leibniz memorial somewhere in downtown Hannover, of course!

STUDENT: Look at what is written on it: "Einheit in der Vielheit"….

JULIE: And in Latin: "unitas in multitudine".

STUDENT: It's no wonder that someone who was so fond of precision and used mathematics as a model of knowledge would also be keen on finding everywhere unity in diversity.

JULIE: I am not sure whether these are necessarily twin views! One could probably go on using mathematics as an achetypal model of knowledge without holding the postulate of unity in diversity.

STUDENT: This fascination with numbers, harmony and unity seems to be so persistent in the Western thought, going back to Plato and the Pythagoreans.

JULIE: And Leibniz was, of course, one of the protagonists in this great tradition. It is somehow ironic that in the conference where we have been at the *Leibniz University of Hannover*, as its official name, the debate was mainly on narratives, understanding and diversity rather than on mathematics, harmony and unity.

STUDENT: Indeed. It seems that one still struggles with the way that mathematics and formal methods should be used in the social sciences or whether they are even to be applied to them in the first place.

JULIE: The proper use of mathematics is a problem not only for the philosophy of the social sciences, but also for the philosophy of the natural sciences. It is still an open issue whether mathematical models, computer simulations, etc. are themselves explanations of natural phenomena or whether they need to be interpreted first in order to provide *scientific understanding*.

STUDENT: You seem to presuppose that explanations provide *scientific understanding*, don't you?

JULIE: Indeed, this is the case – and quite an uncontroversial issue really.

STUDENT: But what about the age-old "*Verstehen vs. Erklären*" debate?[1]

JULIE: What about it?

STUDENT: I always thought that there is methodologically something utterly important in this debate on "Explanation vs. Understanding"! It was largely about the following question: whether there is a distinct method for the apprehension of meaningful material – *Verstehen* (or understanding) – employable in the social sciences and the humanities, the *Geisteswissenschaften* or *Kulturwissenschaften* as they are called in the German tradition, which deal with such material, or whether the general method applied in the

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[1] See Feest (2009).

natural sciences is successfully employable in the social sciences as well – *Erklären* (explanation).

JULIE: Of course. Methodological dualists like Dilthey[2] strongly pleaded for the autonomy of the social sciences and humanities, which must follow the method of *Verstehen*. For Windelband (1894) the logic of the *Kulturwissenschaften* is famously characterized by an *idiographic* interest in singular judgments about the past opposed to the natural sciences' *nomothetic* interest in formulating laws. In contrast to this dualistic approach, methodological monists like Mill[3] reject the dichotomy and plead for a single method applicable to all sciences convinced as he is that discovering and establishing lawlike hypotheses is also possible in the social sciences.

STUDENT: Who is right in this *Verstehen* Wars?[4]

JULIE: You have heard Karsten Stueber in the conference.[5] Building on his older argument[6] that the broad contrast between understanding and explanation is insufficient for marking a methodological distinction between the human and the natural sciences, he has now introduced the distinction between three kinds of explanatory understanding: *theoretical*, *narrative* and *empathic*. While both the social and natural sciences traffic in the first two kinds of explanatory understanding, narrative understanding is, according to Stueber, exclusively social-scientific. Yet, empathy and empathic understanding do not exclusively define the human sciences; rather the human sciences are characterized by a complex interplay between theoretical, narrative, and empathic understanding.

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[2] See Dilthey (1883/1990; 1924/1990;1927/1992).
[3] See Mill (1843/1974, Book VI).
[4] See Khalifa (2019).
[5] See Stueber (2019).
[6] See Stueber (2006).

STUDENT: I am not convinced that blurring the distinction between explanation and *Verstehen* is a fruitful strategy! I think that Stueber is too quick to follow the recent developments in the analytical camp, mostly in epistemology and philosophy of science, and to adopt views like "explanatory understanding". This makes the original ambivalence of *Verstehen* as a type of knowledge and *Verstehen* as a method even worse.

JULIE: What kind of ambivalence are you talking about?

STUDENT: I will tell you in a minute. Should we walk further? I suggest that we go to Maschsee. I think it is worth a visit!

JULIE: Whatever you'd like. I am very glad that you are doing this. Last time that I visited Hannover, I did not have any time at all to wander about, except for visiting the Aegidienkirche, of course.

STUDENT: I have been in Hannover a few times and I like this walk. I think you will like. having lunch at Maschsee, And the Aegidienkirche is on our way, so we can stop by there too, if you want.

JULIE: Wonderful! Let's walk to the Aegedienkirche, then.

STUDENT: Fine. So, I was telling you about the ambivalence which I find in nearly all discussions about *Verstehen* since Dilthey.

JULIE: I am listening.

STUDENT: On the one hand, by "understanding" those in this discussion tend to mean a *type of knowledge*, one oriented toward certain signs and symbols. Understanding, thus, appears to be a subcategory or a subclass of knowing. On the other hand, understanding

appears to be a *method*, and in fact the method proper for the human sciences, which among other things is supposed to legitimize the claim to the autonomy of those sciences. This ambivalence was somehow constitutive for the German discussion for many decades. It has become worse in the philosophical discussion of the Anglo-Saxon world mainly due to the way the term *understanding* has been used there. Understanding is a broad term, whose meaning overlaps more with *begreifen* than with *verstehen* in the German discussion.

JULIE: I see.

STUDENT: Be that as it may, in my opinion it is possible to do tolerable justice to the diversity of the use of the terms, and to the different conceptions, if one distinguishes between two general uses of the concept of Verstehen: namely, understanding as a *type of knowledge* and understanding as a *method*.

JULIE: Suppose that I accept this distinction. Where would "scientific understanding" fit in here?

STUDENT: When explanations are provided, either in the natural or the human sciences, the *effect* is that the members of the respective scientific community who *accept* these explanations come to *share* the same cognitive structures, in the sense that they tend to provide the same or similar answers to why questions. Scientific understanding is, thus, nothing else than the shared cognitive structures (shared rules of representation, shared

rules of inference and shared rules of scope), which yield the same or similar explanations of phenomena[7].

JULIE: Is scientific understanding objective?

STUDENT: It is objective in the sense that these shared cognitive structures are intersubjectively anchored.

JULIE: So, it is a mental state really?

STUDENT: Scientific understanding is certainly a mental state which comes to existence when explanations are accepted (on whatever merits or criteria) by the members of a scientific community, and not a method proper. However, it is often presented in the recent literature and also by Stueber as if it were a method. Thus the unproductive ambivalence between *Verstehen* as a type of knowledge and *Verstehen* as a method is – unfortunately! – retained.

JULIE: But recall what we have also heard in the conference yesterday: the notion of perspective taking has been suggested as an "umbrella term" for "interpretation, empathy, reenactment, *Verstehen*, hermeneutics, knowing 'what's like', etc."

STUDENT: I don't think this notion of perspective taking brings the clarity to the debate that he intends. To the contrary – it enhances the ambivalence.

JULIE: Why?

STUDENT: The effect of introducing this term is to minimize the differences between the natural and the human sciences apriori. Who would ever disagree with the thesis that

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[7] See Mantzavinos (2013 and 2016).

every scientist or scholar assumes a certain perspective in studying whatever she intends to inquire into? Who would ever challenge the view that an astronomer, a philologist, a political scientist or a biologist takes a certain perspective towards her own epistemic object? So, once you are willing to accept that everything that the long hermeneutical tradition had to offer was *perspective taking*, all differences between the humanities and the natural sciences evaporate!

JULIE: Well, are you sure that this was the main point in the discussion? I think that you are not doing justice to what has been said!

STUDENT: I would even go further in my criticism, as a matter of fact. This seems to anthropomorphize nature again, when it is suggested to us that the different kinds of *analogies* that natural sciences permanently use in their daily work should be viewed as if they were *taking the perspectives* of an electron or a stone or a planet. However, this strategy aiming at making all these differences harmless and most importantly at playing down the difficulties to deal with meaningful material – human actions and texts – is too simple to pass muster. *Interpretation*, *perspective taking* and *use of analogies* are all different activities; and confounding them in order to trivialize the differences between the disciplines of the natural and human sciences is not a fruitful strategy.

JULIE: So, what is your suggestion then?

STUDENT: If one views *Verstehen* (or understanding) as a type of knowledge, then one can indeed explain the process that leads to acquiring *Verstehen*; if one views *Verstehen* (or understanding) as a method, then it is useless. The standard hypothetico-deductive method is a superior alternative.

JULIE: What do you mean by explaining the process that leads to acquiring *Verstehen* (or understanding)?

STUDENT: As I said before, if *Verstehen* concerns the grasping of meaningful material by means of a subjective mental process involving both cognitive and emotional components, then this process is perfectly explainable in principle.

JULIE: What do you mean by "meaningful material"?

STUDENT: I mean human actions and the outcomes of these actions, for example texts, pictures and other symbolic systems.

JULIE: So, you suggest in principle a naturalistic strategy, don't you? It would consist in providing testable regularities or mechanisms of those mental processes which one calls "understanding persons" or "understanding actions"?

STUDENT: Correct. This is what cognitive science has been doing for a few decades and there is nothing mysterious involved here[8].

JULIE: Why should one suppose that these explanations offered by psychology and cognitive science are successful?

STUDENT: Even if they are not completely successful, they are *in principle possible*, and this is all that matters.

JULIE: And why should one be so quick to adopt this naturalistic strategy, explaining *Verstehen* that is, which is so provocative to every hermeneutic philosopher, and viewed by many of them simply as ridiculous?

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[8] See Turner (2019).

STUDENT: "Every great movement must experience three stages: ridicule, discussion, adoption", as John Stuart Mill put it.[9]

JULIE: I am not sure that naturalism is a great movement, however!

STUDENT: Let me proceed!

JULIE: Please do!

STUDENT: So here is my general position: methodological naturalism has been originally applied to the natural sciences and can be equally applied with success to the social sciences and humanities. Science deals with problems rather than with neatly delimited object areas,[10] which are supposed to be distinct according to specific a priori principles. In order to successfully deal with these problems, to the extent that they are of a theoretical nature, hypotheses can be formulated, consequences can be drawn by deduction, and these can be tested against empirical data. This is simply the hypothetico-deductive method, a methodological procedure, in principle applicable to every subject matter, whether it be meaningful or not.

JULIE: This is the standard conjectures and refutations procedure what you are describing.

STUDENT: Indeed. It encapsulates both creative and critical rationality. One creates hypotheses and criticizes them appealing to evidence, the more diverse the better. There are of course different research styles and diverse research techniques in the various disciplines, but the core of the hypothetico-deductive method remains the same.

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[9] Quoted from Nozick (1997, p. 305).
[10] See Albert (1994, p. 97f.)

Whatever the differences of the object areas, it essentially involves a minimalistic requirement: to set up hypotheses whenever attempting to acquire knowledge and to test them critically using empirical observations.

JULIE: This is a rather old-fashioned view that you are describing. There is, supposedly, a unique method in the sciences, the scientific method, incorporating scientific rationality, and one just needs to apply it in order to acquire scientific knowledge. Who today believes in this simplistic view of scientific method? I leave aside postmodern critics. Even mainstream analytic philosophers of science have taken a different path – they are all pluralists now, arguing for diversity, plural methods and perspectives!

STUDENT: Even if there is a huge variety of research techniques, of representation vehicles and inferential tools widely and wildly diverging in the different areas of science, there is still a unity in diversity: all these are exemplifications of the scientific rationality of conjectures and refutations, embedded also in the institutions of science.

JULIE: Unitas in multitudine…

STUDENT: …but now in the methodology of science, not in its subject matter.

JULIE: You have got to say a lot more in order to convince me!

STUDENT: Let us focus on the application of the hypothetico-deductive method to meaningful material, most prominently human actions, since this is what we are concerned with in the social sciences. What differentiates human actions from bodily movements is that they have meaning.

JULIE: I recall Max Weber's classical definition: "We shall speak of 'action' insofar as the actual individual attaches a subjective meaning to his behavior – be it overt or covert, omission or acquiescence".[11] Human behavior that is meaningful thus becomes human action.

STUDENT: So here is my starting point: Human action is endowed with meaning when the actor who is engaging in it interprets it against the background of his goals, his beliefs and his other mental states while interacting with his natural and social environment. I call it a *nexus of meaning*, and it arises in connection with a human action.

JULIE: You seem to remain in the hermeneutical tradition: the nexus of meaning reminds of Dilthey's *Sinnzusammenhang*.

STUDENT: Precisely! Now here is my main thought: the hypothetico-deductive method can grasp the meaning of an action in two ways: by transforming nexuses of meaning that *repeatedly* occur in connection with certain actions into causal nexuses and nomologically explaining them; and by reconstructing the nexus of meaning of a *specific action* so that it is accurately depicted.

JULIE: So, you seem to imply that the hypothetico-deductive method has two manifestations: it can either be used in order to establish regularities and on basis of them to provide *explanations* of human actions *or* be used in order to establish detailed descriptions of specific actions and on basis of them to provide *Verstehen*?

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[11] See Weber (1922/1985, p. 542) and (1922/1978, p. 4).

STUDENT: The error of the protagonists of the hypothetico-deductive method, Popper[12] and Hempel,[13] was that they exclusively focused on deductive causal explanations in the sciences and in historical research,[14] and this gave rise to the belief that the hypothetico-deductive method should be equated with the model of scientific explanation. Although hypotheses can possibly explain phenomena, of course, they can also allege the existence of individual facts, something which is of equal scientific importance especially in the social sciences and the humanities.

JULIE: I am not sure about what you are trying to tell me really.

STUDENT: The hypothetico-deductive method is both a *nomothetic* and an *idiographic* method – this is what I am trying to tell you!

JULIE: I am ready to hear all your arguments in support of this strange thesis!

STUDENT: The main argument that I have devised in order to establish the claim that even if human actions are meaningful, they can still be causally explained is the "successful transformation argument".

JULIE: It has an impressive name to be sure!

STUDENT: It has five steps. I start with the thesis that *human actions have meaning* – pure physiological reactions are not constitutive of a human action.

JULIE: This is Max Weber's starting point, as we have discussed before.

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[12] See Popper (1934/2005)
[13] See Hempel (1965).
[14] See Popper (1957/1991) and Hempel (1942).

STUDENT: Indeed. The second step acknowledges that there are different ways of apprehending the nexus of meaning. There is not a single conceptual apparatus in virtue of which one can apprehend the nexus of meaning. On the contrary, let me name just four influential approaches: one can apprehend the nexus of meaning of an action by identifying the *motive* of an action,[15] the *intention (s)* of an action,[16] the *reasons* for the action,[17] or the *rationality* of the action.[18] But there is, at least in principle, no limit in the diversity of the conceptual apparatuses that can be used to describe a nexus of meaning.

JULIE: I agree.

STUDENT: The different approaches identify different "fundamental elements" in the nexuses of meaning, that is, elements whose identification and description turn a piece of behavior into a meaningful action. With "fundamental elements" I mean all the relevant mental states of the actor as well as all relevant mechanisms that are at work when a meaningful action is performed. Regardless of the approach and the conceptual apparatus used to apprehend the nexus of meaning of an action, it is always in principle possible that the fundamental elements of this nexus of meaning will also occur in connection with other actions of the same person or of other persons. Every time that one succeeds in identifying similar fundamental elements either in connection with the nexuses of meaning of other actions of the same person or in connection with the nexuses of meaning of the actions of other persons, one has been successful in identifying a regularity.

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[15] See e.g. Weber (1922/1985, p. 550).
[16] See e.g. Searle (2001, p. 34ff. and 2009) and Dennett (1987).
[17] See e.g. Davidson (1963/2001).
[18] See e.g. Becker (1976), Føllesdal (1982), Mantzavinos (2001, part I and 2009 ch. 5.4.) Boudon (2003), Henderson (2010) and Herfeld (2019).

JULIE: But a regularity is not a law, of course!

STUDENT: Of course not. But one does not need to endow the statements that describe the regularities in the nexuses of meaning with the status of "laws". All that one needs is that the statements describing these regularities are "invariant generalizations".[19] These generalizations can function in the same way as "laws" used to in traditional accounts of explanation.[20] This is the fourth step of the argument.

JULIE: But still, you have to say something about what makes a generalization, which is a statement describing a regularity, a *causal* one!

STUDENT: This is the fifth and final step of my argument: I embrace a causal ecumenism[21] – why should I adopt a specific theory of causality and lose the ecumenical advantage?

JULIE: But don't you have to be more specific on which regularities are also to count as causal ones, if you want to provide what you call a "successful transformation argument", a transformation that is of a nexus of meaning into a causal nexus?

STUDENT: For purposes of explanation, no.

JULIE: But this weakens your argument a lot!

STUDENT: No, it doesn't. The main claim of the interpretivist philosophers for decades, indeed centuries, has been that the detection and establishment of regularities in the social realm is impossible precisely because human actions are meaningful and thus unique. It is

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[19] See Woodward (2000 and 2003).
[20] See Mitchell (2003 and 2009).
[21] See Strevens (2008, pp. 32ff.)

the regularity which is the heart of the matter and not the specific way in which the regularity is causal – this will always depend on which specific theory of causality[22] one is willing to endorse.

JULIE: Human actions are subject to generalizations so that causal explanations of human actions are possible even if one admits that they have meaning – this is the thrust of the argument.

STUDENT: Indeed. And here is an example. Consider the case of a politician X, who in a situation S_1 orders the detention of his political opponents. One can apprehend the nexus of meaning of this action by stating the motive of the action in this case, namely, that he wants to remain in power and govern without criticism and opposition. The fundamental element in his nexus of meaning is the motive of remaining in power. If one succeeds in showing that this element also appears in connection with other actions of the politician X in other kinds of situations $S_2, S_3,..S_n$ or with the actions of other politicians Y, Z,…N in similar situations, then one has discovered a generalization. Establishing this generalization with the aid of empirical evidence constitutes a transformation of the nexus of meaning into a causal nexus.

JULIE: This is a very simple example, but I can see the point.

STUDENT: My claim is this: the nexuses of meaning *can* be successfully transformed into a causal nexus, but it *needn't* be. In fact social scientific activity consists to a great extent in doing precisely this: trying to discover and test such generalizations. But this epistemological task will not necessarily be successfully accomplished. The point,

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[22] See Cartwright (2007).

though, is that it is still in principle possible, and indeed quite common. The generalizations discovered and tested have an explanatory power within certain limits, but this is also the standard case in many natural sciences, if not all of them.

JULIE: But it's not always possible to detect and establish such regularities, is it?

STUDENT: No. There are many cases in which such a transformation of a nexus of meaning into a causal nexus is not possible, because of the creativity of human beings or for other reasons. In these cases it's not possible to formulate generalizations. The scientific activity in those cases consists in accurately reconstructing the nexus of meaning of the action or, if it is a more complicated case, in reconstructing how the nexuses of meaning of different actions are embedded in broader cultural settings. This is often the case in history, in anthropology, in political science and the other social sciences.

JULIE: Explanations are impossible in those cases, then.

STUDENT: Indeed. However, social scientific activity does not exhaust itself in providing answers to "why?" questions. Answering "what is the case?" or "what was the case?" questions is also a perfectly legitimate scientific endeavor. The accurate reconstruction of a nexus of meaning of an action or of multiple nexuses of meanings of different actions embedded in broader cultural settings is the aim in these cases.

JULIE: Now I see it. This is the Aegidienkirche.

STUDENT: Let us go inside.

JULIE: A few years ago I did research on Hiroshima, which is the Japanese sister city of Hannover. Hiroshima has made a donation of a peace bell – bonshō – which you can see there, installed close to the tower. I know that this is used on Hiroshima day, this is the 6th of August, when an annual service takes place here.

STUDENT: It is so emotional to be here. This was traditionally one of the three main churches in Hannover, and it was destroyed in World War II. Leaving it in ruins as a war memorial was an excellent idea, I think.

JULIE: The decision to leave it in ruins was made in 1952. The church was destroyed in the night of the 8th of November 1943. British RAF planes dropped more than 260,000 bombs on that night in what was the most pernicious raid on Hannover, killing 1,245 people and leaving another quarter of a million people homeless. 504 planes departed from South England. 120 of them dropped their bombs in Bremen, and the rest initially flew towards Berlin. But this must have been a maneuver, as they suddenly changed direction and arrived in Hannover at 1:30 am. The city burnt through the whole night. This was a horrible incident – many people died in the bunkers due to suffocation since they did not dare to go out, fearing the fire.

STUDENT: This raid was not the only one – there were many during the war.

JULIE: This was the 428th alarm warning the inhabitants of Hannover had heard about a possible raid since the beginning of the war. When they heard this alarm on that pleasantly warm autumn day, they could not have imagined what would follow. This was the hell. I have read reports by eyewitnesses describing how fugitives were stuck in the melting and soften asphalt, unable to run and were burnt alive. A hot wind was blowing

in the streets of the city center. Flames were all consuming. Sparks were flying out of the fire and blowing everywhere. Debris was falling from the houses that were hit by bombs. A further testimony has been retained due to a miracle: a small piece of paper registering the increase of the temperature between 2:00 am and 4:00 am from 10^0 C to 34^0 C. There was a small weather station in the Kröpcke-Clock in Hannover downtown, which provided us with a further piece of evidence on the prevailing conditions.

STUDENT: Reconstructing the meaning of the action to leave the ruins of the Aegidienkirche intact can be a legitimate scientific activity. This is a perfect example of answering a "what was the case?" question. The aim here is to accurately reconstruct the nexus of meaning of this action. And there is also truth and falsity here. Diverse hypotheses can be formulated – here they take the form of reconstructions of the nexus of meaning of an action – and they can be tested with the use of evidence in order to find out which ones are closer to truth.

JULIE: This is what qualitative research in anthropology and the other social sciences is about[23] when it does not aim at establishing regularities, I agree. It is what Clifford Geertz calls "thick description"; the essential task of the theoretical endeavor here is not to generalize across cases but to generalize within them.[24]

STUDENT: I am not sure whether we have to do with a generalization proper within a case here, however. We are making use of generalizations when we provide reconstructions of nexuses of meaning – say regarding the way that thermometers record temperatures. But the aim is not to generalize. It is to adequately describe the nexuses of

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[23] See Zahle (2018).
[24] See Geertz (1973, p. 26).

meaning of actions and how they are embedded in broader cultural settings. When a social scientist gives an account of the action of leaving the Aegidienkirche as a ruin, she reconstructs the nexus of meaning of this action by identifying the motive, the intentions, the reasons or the rationality of the action or uses some other conceptual apparatus. The hypothetico-deductive method has its second manifestation here (beyond the one of establishing regularities): to accurately depict the specific action by reconstructing the nexus of meaning involved.

JULIE: The different reconstructions of the nexuses of meaning are hypothetically devised, I agree. But why should truth be the only ideal according to which the hypotheses offered should be judged?

STUDENT: It should not. There are other regulative ideas, like beauty, for example, according to which the hypotheses can be appraised. My point is very modest: I am simply saying that an appraisal according to truth *is possible*. These social scientists that are willing to accept truth as *one* regulative idea guiding the appraisal of our answers to "what was the case?" questions can proceed to such an evaluation, imperfect, of course, but possible.

JULIE: So, the hypothetico-deductive method can provide *explanations* when applied to the answering of "why?" questions and *interpretations* when applied to the answering of "what is the case?" questions? Social sciences deal equally with both kinds of activities, explanation *and* interpretation – is this what your conclusion is?

STUDENT: Indeed. It is an irenic approach that I am suggesting. No activity is to be a priori favored to the exclusion of the other. The kind of questions that every individual

scientist wishes to deal with is a choice taken before the scientific activity proper starts. And to the extent that one or a series of hypotheses are accepted after having been tested with the aid of evidence, *scientific understanding* has been obtained by the members of the respective scientific community.

JULIE: Both *explanations* and *interpretations* provide scientific understanding, thus.

STUDENT: Yes, to the degree that they are deemed successful, that is closer to truth. But let's stroll to the Maschsee now – it is probably not as beautiful as *Søerne*, the Lakes in Copenhagen, but it is still very beautiful nonetheless.

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