Spiethoff's economic styles and the current debate about pluralism in economics

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Draft 20170601

Abstract

The article concentrates on the methodological aspects of the economic styles approach by Arthur Spiethoff. As it will be shown, this approach shows a lot of characteristics typically attributed to social economics, evolutionary economics, Tony Lawson's social ontology and, therefore, to heterodox economics in general. However, it can also add interesting insights to the current debate about economics. Among others, a re-interpretation of this approach can help to outgrow the duality of either deduction or induction still dominating the debate about economics. It can also provide a general framework for different economic approaches, including the established (so-called) mainstream approaches.

Key words: economic style approach, methodology, abduction

JEL: B250, B41, B520, Z130

1 Introduction

The criticism on what the critics call 'mainstream economics' seems to be a continuous element within the history of economic thought. However, since the worldwide economic crisis, starting in 2007, the criticism of the 'mainstream' seems to be increasingly led outside the pure academic discussion within economics. It more and more enters the public discussion about the artificial, unworldly or non-realistic character of economics as well as its ignorance about the divergence between economic theory and 'reality'. This criticism is shared by the recent discussion within the marginalised streams of economics, often called 'heterodox economics'. For instance, Frederic S. Lee (2012, p. 342) wrote that the current standard of economics would produce 'pseudo-knowledge' and Tony Lawson (2006) implied the non-realistic view of the current standard of economics by its ontology (closed economy, atomism and isolationism). Other heterodox economists explain that heterodox economists should rather concentrate on real (world) problems, which also implies that the currently established economic approaches are abstract and unworldly (e.g. Dequech, 2012; Lavoie, 2012).

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¹ The terms 'mainstream' and '(current) standard' are synonymously used within this text and follow Dequech, who defined: 'Mainstream economics is that which is taught in the most prestigious universities and colleges, gets published in the most prestigious journals, receives funds from the most important research foundations, and wins the most distinguished awards.' (Dequech, 2012, p. 354) This definition is obviously coloured by the concepts of Thomas S. Kuhn (paradigm) and Imre Lakatos (research program), but Dequech's definition seems to be sufficiently enough for the appropriate understanding of 'mainstream' and 'standard' as it is used in this article.

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² For the case of Germany, this criticism of the public opinion is shown by the newspaper articles of Ahmia (2008), Storbeck (2009), Plickert (2009), Liebert (2009), Dullien (2012), Fischermann and Pinzler (2012). These German newspaper articles are listed within the reference list by its original German titles.

Against this background, the article directs the readers' attention to a mostly forgotten approach which would concentrate much more on the 'real-world' than the current standard of economics usually is suggested to do: The idea of *economic styles*. This approach is part of the tradition of the German historical school of economics (Spiethoff, 1932, p. 155), so it was sometimes called neo-historical (Rieter 2002) or classified as Neo-Historism. The people who are mostly associated with the idea of economic styles are Arthur Spiethoff (1873-1957) and Alfred Müller-Armack (1901-1978). Of course, there are a few more economic styles concepts. For instance, Arthur Spiethoff himself critically discussed the styles concepts of Heinrich Bechtl, Hans Ritschl and Alfred Müller-Armack. Spiethoff called these approaches 'cultural styles' in order to differentiate those ideas from his own concept called 'economic style' (Redlich, 1970, p. 651). Spiethoff also mentioned and discussed Werner Sombart who's idea of an 'economic system' is similar to the economic styles approach (e.g. Spiethoff 1932; Redlich, 1970, p. 652).

A detailed discussion about the differences and common grounds of these economic styles approaches is doubtlessly interesting, *but explicitly not the aim of the paper in hand*. Moreover, most of secondary literature about economic styles deals with this subject, so a further discussion is almost certainly running the risk to end up with (probably unnecessary) iterations. Readers interested in this topic are therefore rather referred to Rieter (2002), Kaufhold (1996) or Schefold (1994). Of course, several articles and books concerning the economic styles were published within the last ten years such as Schefold (2011), Quaas (2009), Rieter and Zweynert (2009) and Rossi (2006). However, the total number of publications remains very low. In addition, there seems to be hardly any current research program about economic styles, not to mention any current attempt to a further development of the approach or any past or present chair explicitly dedicated to economic styles. Consequently, the mentioned literature about economic styles does not disprove the mostly forgotten character of the economic styles approach in general.³

Considering Spiethoff being the most important representative of the economic styles idea (Schefold, 1994, p. 65) and his concept being the most systematically elaborated one (Klump, 1996, p. 15) as well as bearing in mind the limited space of this article, this article mainly concentrates on Spiethoff's idea of economic styles. He originally described his idea in 1932 and modified it around 1952 which was then partly published in several papers (Spiethoff 1952; 1953; Redlich 1970).

A detailed research about the meaning of Spiethoff's works – usually expected from the history of economic thought research – is beyond the scope of this article. Note that the limited space of an article is often generously overlooked by critics, especially among experts of the

³ Interestingly, the *Handbook of the History of Economic Thought*, edited by Jürgen G. Backhaus and published in 2012, mentioned 'styles' only one time in the contribution of Helge Peukert about Werner Sombard (where you can find the only mention of Spiethoff's name within the entire handbook). The same applies to the textbook about the history of economic thought by Söllner, published in the third edition in 2012, where Spiethoff is also mentioned only once, but only with regard to his work about crises or (rather) business cycles; the economic styles are not mentioned there. Consequently, students of economics often do not know any economic approach considering the social sphere in general and the economic styles approach in particular. As a result, especially critical students today demanding a more 'social embedded' approach rather turn their view to sociological concepts. In this case economical science would be completely out of business.

history of economic thought. This particularly applies to the case where a young professional is daring enough to write about a subject of the history of economic thought. Therefore, in order to restrain excessive expectations and to avoid disappointments, the following points clarify what this article does *not* address and *not* deal with:

- 1. Although there is a lot of interesting secondary literature about economic styles in general (such as Kaufhold, 1996; Schefold, 1994; Rieter, 2002), any literature research almost certainly leaves the readers at Gioia's (1997) impression that this secondary literature usually does not concentrate on the methodological aspects of Spiethoff's economic styles approach. Consequently, secondary literature is only considered if it contains aspects important for the purpose of this article.
- 2. Reasons that made Spiethoff's approach forgotten today will also not be discussed.
- Although the relationship of Spiethoff and Schumpeter is an interesting biographical note, this is also clearly beyond the scope of this article and would address another topic very different to this article. Interested readers are additionally referred to Kurz (2010).
- 4. The same applies to a comparison with other economic styles approaches (e. g. by Bechtel or Müller-Armack) as well as Werner Sombart's approach of economic systems. Note that this is already a topic within other articles (e.g. Rieter, 2002; Schefold, 1994) and especially within Spiethoff's own writings.
- 5. Spiethoff is well known for his research on economic crisis and business cycles. However, exactly this subject seems to overshadow his contribution to the economic styles approach, especially with regard to the methodological parts of this approach that shall be discussed here. This overshadowing character should not be encouraged within this article. In addition, the literature is a little bit diffuse about the relation between Spiethoff's economic styles approach and his research in economic crisis and business cycles: While Rieter (2002, pp. 159-160) explained that Spiethoff associated business cycles with an feature typical for an capitalistically economic style, Kaufhold (1996, p. 31) regrets the unfinished level of Spiethoff's approach because he suggested that Spiethoff was best predestined for developing such a historic theory satiated by facts. Following the same line of Kaufhold, even the German textbook about the history of economic thought by Kolb (2004, p. 112) left the readers at the association of Spiethoff's approach with an unfinished endeavour. The 'unfinished endeavour' of economic styles implies that an appropriate application and development of Spiethoff's approach is missing. Considering both different opinions about this style concept, the relation between Spiethoff's research and the economic styles obviously requires a revision which is, however, a matter different from that of this article. Note that the perspective from which this article starts is influenced by social economics (Sozialökonomik), philosophy of economics (economic ethics), economic culture research (Wirtschaftskulturforschung) and economic anthropology. Therefore, the article concentrates rather on emphasizing the aspects of (re-) embedding economics into the social context as it is demanded by

- (some) heterodox economists and the movement of discontented economics students today.
- 6. Since the article addresses the discussion about economics which naturally enters an 'abstract' level (and bearing in mind the limited space of an article again), the concrete application of the economic styles is disregarded here. In addition, the application of economic styles seems to be rather often limited to an interpretation of 'real facts' in terms of economic styles than a systematically applied and developed framework such as provided by Spiethoff's characteristics of economic styles.

In contrast to all the interesting subjects related to economic styles that could be discussed and as indicated within the aforementioned enumeration, this article concentrates on the *methodological aspects* of Spiethoff's economic styles approach and the consequences for the current debate about pluralism in economics.

Note that Spiethoff's texts interestingly show that he was concerned about similar questions as Tony Lawson discussed according to his social ontology, 'mainstream ontology' and criticism of deductivism. Although Spiethoff did not make any progress at the (abstract) level of theory, where he tried to moderate between the method of induction and deduction, he provided some space of interpretation breaking this duality of induction and deduction when he turned to explain the development of economic styles and the identification of causes. Against this background, a literature research would almost show no articles that links Spiethoff's economic styles to *qualitative induction* and *abduction*.

Additionally, the readers would hardly find any article that links Spiethoff's economic styles approach to the current debate about pluralism in economics such as stipulated through the *International Student Initiative for Pluralism in Economics* (2014). As it will be shown, Spiethoff's approach can serve the demand for pluralism as well as being interpreted as an alternative to what the standard of economics provides today. Against this background, the following issues will be addressed in detail: the theoretical framework, including Spiethoff's differentiation of theory, the possibility of deductive 'heterodox' economics as well as inferences through qualitative induction and abduction (section 2); the economic styles, including the detailed features of economic style type 1 based on Gestalt theory (section 3); the alternative character of the economic styles approach illustrated by comparisons with social economics (Sozialökonomie), German evolutionary economics and heterodox economics (section 4); in the conclusion the insights will be applied to the current debate about pluralism in economics.

2 The theoretical framework

2.1 Spiethoff's differentiation of theories

The basic concept behind Spiethoff's economic styles approach is that each theory requires a certain economic style. Therefore it is helpful to firstly discuss his differentiation of theories,

namely the pure theory and the economic Gestalt theory.⁴ Starting with the *pure theory* (reine Theorie), Spiethoff wrote:

'Pure theory emphasizes the isolation of specific phenomena and their relations to other isolated and specific phenomena; other relations which may also exist are disregarded. It is interested in isolated phenomena, not in the innumerable concatenations that in reality link them together. Attention is focused upon specific phenomena and relations, selected with the aid of a given frame of reference and manipulated for research purposes without regard for their location in a 'total' situation. [...] Pure theory starts from data which have an axiomatic character, and conclusions are reached by a process of logical deduction: the student draws conclusions about effects by taking a given data as causes.' (Spiethoff, 1953, p. 445)⁵

The pure theory as described in the above quotation indicates what current students of economics are taught and for what Tony Lawson (1997; 2013; 2006) often criticized the standard of economics (called 'mainstream'). Put bluntly, pure theory means inferences through deduction, is based on isolation and abstraction, deals with abstract phenomena (i.e. isolated and atomized subjects), and is therefore artificial etc. However, there is an important difference between the pure theory as being completely artificial and nonhistorical, and pure theory as isolating the phenomena on the base of 'reality'. This point will be continued at a later stage of this article.

In contrast to the pure theory, Spiethoff also developed the *economic Gestalt theory* (anschauliche Theorie; in the following just called: *Gestalt theory*):

This theory aims at the closest possible approximation to the observable reality. [...] [E]conomic Gestalt theory considers the maximum number of relations in which the phenomenon to be investigated actually occurs, provided that those relationships are uniform in character. By a process of induction, economic Gestalt theory arrives at discrete species of phenomena whose characteristics are the date from which it starts. It does not propose to deal purely and simply with relations between rigorously specified phenomena; on the contrary, its purpose is to consider all phenomena that actually and uniformly impinge on the one which is the center of attention. Consequently, the selection of phenomena is not determined by looking only at relationships that have been defined in advance, but by the goal of embracing all uniform and essential relations that occur in a given situation of economic reality. Essential are those phenomena which appear to be causes or conditions of the one under investigation or indicative of those causes and

For this purpose, the historical background has to be kept in mind, which is the well-known dispute over the method between *Gustav Schmoller* and *Carl Menger*, called *Methodenstreit*. According to

the method between *Gustav Schmoller* and *Carl Menger*, called *Methodenstreit*. According to Schachtschnabel (1971, pp. 10–11), the *Methodenstreit* stipulated various attempts of the synthesizing *induction* and *deduction method*. Spiethoff's approach is such an attempt where terms like 'pure theory' and 'timeless economy' (Spiethoff, 1932) clearly breathe the spirit of Carl Menger's 'exact method'.

⁵ Redlich (1970, p. 642) also referred to an alternative translation, the 'isolating theory'. Spiethoff (1932)

synonymously used the term 'abstract theory' for the 'pure theory'.

conditions. The ultimate goal of economic Gestalt theory is a replica of reality.' (Spiethoff, 1953, pp. 445–446)

In Spiethoff's eyes, the economic Gestalt theory was firstly characterized by the inference through induction. As the above quotation shows, Gestalt theory is also based on abstraction and isolation (being typically associated with deduction), but the abstraction is 'formed in a way as to leave out only the irregular and the inessential' (Spiethoff, 1953, p. 446). Conflicting phenomena, which would disturb a 'harmonic' ideal of economic life, but are thought to be essential, *must* be incorporated as well (Spiethoff, 1953, p. 458; Spiethoff, 1932, pp. 133–134). Consequently:

'It does *not* matter whether or not the elements, put together, form a *logically consistent* body of knowledge.' (Spiethoff, 1953, p. 458)

As a consequence, it is almost certainly impossible to formulate economic Gestalt theory in terms of a logical deductive construction (where consequences are clearly defined and determined by – known or assumed – causes and/or circumstances).

Most important, the economic Gestalt theory 'deals not only with economic phenomena that have a material substratum but also with economic ideas, motives, and goals' (Spiethoff, 1953, p. 447). As a result, and in contrast to the pure theory, the Gestalt theory was thought to provide a broader applicability (Spiethoff, 1953, p. 447).

Finally, Spiethoff (1953, p. 446) stated that pure theory and economic Gestalt theory are thought to be different in terms of *deduction* and *induction* as well as in the related 'spiri' (Spiethoff, 1953, p. 446). For this reason, Spiethoff explicitly rejected the idea that pure theory and Gestalt theory might 'shade into the other' (Spiethoff, 1953, p. 446). However, while Spiethoff's pure theory and Gestalt theory obviously stipulate the popular polarity between *either* the (pure) deduction *or* the induction method at the first view, Spiethoff also showed slight signs of breaking this polarity elsewhere within his texts (Spiethoff 1932; 1952; 1953). This will be addressed in the next subsection.

2.2 Deductive historical theory, qualitative induction and abduction

Spiethoff's texts about economic styles often show him being caught within the duality of the induction and the deduction method. However, some passages within his texts (that will be referenced in the following) give a different impression especially being noteworthy in the light of the current debate about 'mainstream' economics and pluralism in economics. Therefore, the following discussion starts with the heterodox economists' criticism of what they call 'economic mainstream'. This is then linked to the perspective of Spiethoff's approach.

First of all, according to Tony Lawson (1997; 2006; 2013), the current standard of economics is criticized for its deductivism. Lawson linked this to formalism and especially mathematical techniques. This is in line with the popular (or rather stereotypic) criticism of the so-called mainstream economists' insistency in mathematics, often criticized as

'mathematization' or over-mathematization. The sequence of this argument is that 'mainstream' is deductive, extensively using mathematics and mathematical modelling, and is therefore purely artificial – or, in terms of Spiethoff, producing only 'pure figures of thought' (reine Gedankengebilde).

For the sake of the consistency of this argument, mathematical techniques should be avoided (or rejected) because they provide no sufficient mean for analysing the 'real world' (e.g. Lawson 2006). From this it raises a fundamental problem for *all* economists – and especially for those 'heterodox' economists – who employ mathematics. Put bluntly, deduction and mathematics would not serve a 'real-world' theory.⁶ Consequently, an economist can decide *either* to employ mathematics and, therefore, produce artificial constructs *or* to use another scientific technique for the sake of serving 'real-world' economics.

While this argument follows a black-white-pattern, Spiethoff broke this duality within his extended theoretical framework through a differentiation of nonhistorical and historical theory. *Nonhistorical theory* aims at what 'all species of economic life have in common' (Spiethoff, 1952, p. 135). It contains these phenomena of the economies which are unaffected by time and, therefore, show a uniform or an invariant character. Consequently, nonhistorical theory 'is by necessity pure theory' (Spiethoff, 1952, p. 135).

In contrast to the nonhistorical theory, the *historical theory* deals with the *time-conditioned* phenomena of economic life. While the Gestalt theory is typically a historical theory, Spiethoff mentioned that the deductive pure theory can also serve the historical theory:

'Pure theory deals with models resulting from the isolation of phenomena, and it is 'historical' when it builds its models by isolating phenomena that have existed only at a particular time or a particular place, phenomena that have significance for a specific economic style.' (Spiethoff, 1952, p. 136)

As a result, the deductive pure theory can serve what critics of the current standard of economics would call 'real-world economics'. Therefore, a further differentiation within the current debate about economics can be added: On the one side, the so-called 'mainstream' is stereotypically criticized of being an artificially pure theory, and on the other side there is a more 'real-world' oriented pure theory that could be associated with the stereotypic ideal of heterodox economics. From this raises a demand for a more differentiated — or rather re-formulated — criticism of mathematics used within the current standard of economics. Against the limited space of this article, this differentiated discussion cannot be provided here.

Besides this, Spiethoff broke more intensively with the duality of the induction and the deduction method when he discussed the determination of causes and the development of economic styles.

sufficient solution appropriate to deal with 'real-world' problems.

⁷ Redlich (1970) clarified that Spiethoff used the term *historical* 'in a broader sense than is common in the United States'; the term would rather address 'uniqueness as the characteristic element in historical phenomena' (Redlich, 1970, p. 641).

⁶ This problem is more or less anticipated within the current debate. However, the discussion seems to make no progress. Instead, it persists in the duality of pro and contra about using mathematics without any sufficient solution appropriate to deal with 'real-world' problems.

The original determination of causes depends, methodologically speaking, on deduction; the step-by-step verification of the argument, by means of empirical research, is induction. Actually, theoretical deduction and empirical induction go hand in hand in the task of explanation. A subject of investigation can be approached with a hypothesis; with its help an over-all picture of the possible relations among the phenomena under consideration is constructed. It is also possible that factual research rather than intuition leads to the initial discovery of interrelations and the formulation of imputed causes. Speculative deduction is indispensable; but no logical method exists which by itself would be sufficient to result in an intuitive hypothesis. In later stages of the investigation, empirical research and theoretical considerations mutually influence each other.' (Spiethoff, 1953, p. 450)

Obviously, Spiethoff (1953, p. 450) thought that the induction method and the deduction method are *interrelated* with each other within the *real research process* aiming at economic styles that describe the 'real' economic life. This was already indicated in his early article about economic styles where he mentioned that the (empirical) identification of the conditions is advantageously accompanied by a theory at which both – theory and empirical identification (Wesensfeststellung) – would control and correct each other (Spiethoff 1932, p. 133).

Stipulated through these ideas, Spiethoff's texts about economic styles show the space of interpretation serving to outgrow the duality of *either* pure deduction *or* pure induction (such as still currently popular within economics). To get the point quickly, these ideas seem to be close to what is called 'qualitative induction' and/ or 'abduction'.⁸

Table 1: Summary of the kinds of inference and theory

Kind of Inference	Description	Point of reference	Character of inferred results	Kind of theory
Deduction	A single case is subordinated to a known/ (well-) defined set of rules, axioms and assumptions. If the rules are valid, the results are also valid.	Rules/ pure thought (logic)	tautological & truth-conveying	pure theory
Induction (quantitative)	A general rule is inferred from observed cases, i.e. some cases are transferred into a rule.	Observed 'reality'	tautological & probable	Gestalt theory
Qualitative Induction	Certain observed characteristics of cases (sample) are combined in a way that infers another currently not observed combination of characteristics that – or its possibility of existence – is nonetheless part of the knowledge within the society. Qualitative induction also refers to known rules/ experiences within the society.	Observed 'reality' & known 'rules'	probable & extending the observed cases	Gestalt theory
Abduction	Certain observed characteristics of	Observed	creating new	Gestalt

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⁸ The idea of abduction goes back to the works of Charles Sanders Peirce (1839-1914). However, I refer to Jo Reichertz (2013; 2010; 1999) who analysed the work of Peirce and found that Peirce's ideas changed: What the early Peirce described as 'hypothesis' and called 'abduction' was mistaken with qualitative induction; later, Peirce stated his idea of abduction more precisely in terms of Reichertz (2013).

cases (sample) are combined to infer a new combination of characteristics for which no rules or experiences currently exist, so a new rule has to be created.

'reality' & thought (indirectly: the existent rules/ knowledge)

rules and knowledge

theory

Source: Own table based on Reichertz (2013; 2010; 1999)

The meaning of *qualitative induction* and *abduction* is shown in Table 1 which summarizes the different kinds of inference on the base of Reichertz (2013; 2010; 1999). While the pure induction method and the pure deduction method are tautological and do not produce any new idea, *qualitative induction* would extend the existing knowledge about the observed 'reality' (although in a limited way) and *abduction* would produce new knowledge (Reichertz 2010). Obviously, qualitative induction and abduction seem to serve the endeavor of developing and creating economic styles as it will be mentioned in the following subsections. Especially in the case where a new style is required, abduction would provide the way to get it.

From the perspective of the history of economic thought, Spiethoff's economic styles associated with 'abduction' show a wasted historical opportunity to introduce alternative methods such as *grounded theory* (belonging to the standard toolkit of research within humanities/social sciences) to economics.

3 The economic styles

3.1 Overview

The economic styles were firstly defined as patterns or examples of economic life (wirtschaftliches Zusammenleben) which – as a synopsis of all styles – would depict the heterogeneity of social and economic ways of living as a whole (Spiethoff, 1932, p. 126; Spiethoff, 1952, p. 132). There is a general (economic) theory of an economy possible for each style, but each theory's validity is limited to its attendant style. Consequently, a comprehensive general theory would contain different partial theories with limited validity. Spiethoff emphasized that the economic styles can serve different purposes and so he differentiated different *types*:

- 'Type 1. The model which mirrors a real institutional situation, and is arrived at by economic Gestalt theory.
- Type 2. The model in pure theory arrived at by abstraction from reality.
- Type 3. The model in pure theory which has no counterpart in reality.
- Type 4. The model envisaged by statesmen or utopians to be realized in the future.' (Spiethoff, 1953, p. 451)

3.1.1 The economic style type 1 (based on Gestalt theory)

The *style model of type 1* aims at the analyses of the real differences of economic life (Spiethoff, 1953, p. 357; Spiethoff, 1932, pp. 128–134). Spiethoff clarified elsewhere:

'The specific characteristics selected for the determination of a style model of type 1 serve the function of elucidating why that specific pattern of economic life came into existence and persists; they are meant to explain causally the working of concrete pattern of economic life.' (Spiethoff, 1953, p. 458)

Obviously, this seems to be the prime motive for the use of the style concept that Spiethoff had in mind and which is evident by his extensive explanations about the recreation of the *real* economic life.

Although economic styles are *figures of thoughts* (Denkgebilde), they serve the recreation of the characteristic phenomena of the reality (Spiethoff, 1932, p. 128). Especially for theorizing, the scientist requires styles that show the 'lived reality in its essential differences' (Spiethoff, 1932, p. 129; author's translation). Therefore, economic styles were thought to be constructed as an *image* (Abbild) of the reality (Spiethoff, 1932, p. 131). This indicates an important thought: As Spiethoff (1953, p. 451) stated, 'the economic style is not a descriptive concept, it is a model'.

Spiethoff already provided a very illustrative explanation of this fact in his article from 1932. There, he insisted that this image must not be understood as a photocopy, which means an exact replica of the 'reality', but much more in terms of a painting (Spiethoff, 1932, p. 133). Just like a painter, it is in the eye of the scientist to determine the important characteristics which are (then) shown by the created economic style. Therefore, the scientist is not free of interest, but the creation of economic styles is influenced by the scientist's own impression about the *entire* economic life. The latter includes the characteristics which are thought to be important for and make sense to the scientist. Although the 'important' and 'essential' characteristics are determined by the scientist's decision, the scientist's goal is clear: As mentioned above, he or she should show the differences of economic life by its characteristic arrangements (Spiethoff, 1932, p. 129).

According to Spiethoff's analogy to painting, there exists an important difference between a painter and a scientist: While the painter might ignore some characteristics of reality in favor of the harmony of his or her painting, the scientist *must* 'paint' *all* the characteristics which disturb a harmonic or consistent *ideal* of reality, but are thought to be essential for the real economic life (Spiethoff, 1953, p. 456; Spiethoff, 1932, pp. 133–134). In addition and as already mentioned with regard to Gestalt theory, Spiethoff specified:

'It does *not* matter whether or not the elements, put together, form a *logically consistent* body of knowledge. The ideal of consistency plays no role in the selection of what appear to be the characteristics of a style' (Spiethoff, 1953, p. 458).

Therefore, economic styles of type 1 have to contain the essential similarities and uniformities as well as the contradictions within this economic life, at which the investigation aims at (Spiethoff, 1953, p. 451).

As a result, economic styles depend on the scientist's point of view and experience, so they are not free of individual influences, and their 'objectivity' is limited. However, the scientist is not completely free in creating economic styles, *if* he or she wants to serve the analysis of the real economic life. That means the creation of economic styles is limited through the demand for addressing the entire real economic life including the constraint to consider contradicting phenomena.

3.2 Further economic styles

The *style model of type 2* refers to the pure theory, is 'obtained by the quite permissible procedure of abstracting from concrete reality' and 'may be designed for heuristic purposes' (Spiethoff, 1953, p. 461). These styles represent what Spiethoff (1932) once called *heuristic styles*, which can serve the explanation of the Gestalt theory. According to Spiethoff:

'From a style model reflecting a historical reality the student derives a more abstract model representing a constellation of data which represents "historical" pure theory, in contrast to style models of type 1, which belong to the realm of "historical" economic Gestalt theory.' (Spiethoff, 1953, p. 461)

The *style model of type 3* shows what Spiethoff once called the creation of *interesting styles* (Spiethoff, 1932, p. 134) which could represent an arbitrary collection or arrangement of elements of economic life (Spiethoff, 1953, p. 461). Such styles are constructions which are also known in geometry, i.e. logical constructions free of any relation to reality. They are pure creations of thought (reine Denkgebilde). Spiethoff (1953, p. 461) stated that this kind of style serves 'the sake of pure mental experiment'.

Finally, the *style model of type 4* 'serves to elucidate the possibilities and also the dangers of a desired set of economic institutions' (Spiethoff, 1953, p. 461); they stand for created ideals or desired ideas of how economic life should or could be (Spiethoff, 1932, p. 134). Spiethoff obviously addressed this purpose to the discussion of a *command economy* and a *free market society* (e.g. Spiethoff 1932).

3.3 Categories and further implications of the economic styles

The main characteristic of Spiethoff's economic styles is the individual system of categories, sub-categories and their specification. Unfortunately, they were only presented in Spiethoff's article from 1932. There, Spiethoff himself described the following five categories and 16 sub-categories presented in Table 2.9

These categories, features or characteristics of economic life are not definite. As Spiethoff (1932, p. 148) emphasized, modification might be necessary based on changes in time.

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Table 2 is based on Spiethoff (1932, pp. 146–147), which was translated by the author. Terms which are difficult to translate and may cause confusion are additionally shown untranslated in brackets.

Consequently, the economic styles approach is understood as an open and changeable tool. According to Spiethoff (1952), this openness can also be understood in terms of a method (deduction, induction, abduction etc.):

'Characteristics are found through observation, through deduction, and through the search for possible causes' (Spiethoff, 1953, p. 459).

While Spiethoff did concentrate here on the kinds of inference, I would like to extend this perspective to scientific techniques (mathematics, hermeneutics etc.).

Table 2: Features of Arthur Spiethoff's economic styles

1		Economic spirit (Wirtschaftsgeist)						
	1							
	ı							
	_	of divine predestination, common welfare, the individual's maximum happiness on earth						
	2	Mental incentives (Seelische Antriebe): fear of punishment, religious-ethical motivations						
		(charity, sense of duty etc.), partly ethical motivations (sense of honour, drive for activity,						
		pleasure of work etc.), selfish motivation (own benefits), drive of personality and striving for						
		power, nutrition or purchasing						
	3	Mental attitude (Geistige Einstellung): habit, modernisation						
		Natural and technological basics (Natürliche und technische Grundlagen)						
	4	Population density						
	5	Natural population change: deadlock, slow, moderate, fast increasing						
	6	Production of goods: with division of labour, without division of labour						
	7	Brain work and hand craft: combined or divided						
	8	Technical procedure: organic or artificial-mechanical						
111		Social condition (Gesellschaftsvertrag)						
	9	Size of economic society						
	10	Social conjointness (Gesellschaftliches Verbundensein): family, force, contract						
	11	, , ,						
IV	'	Economic condition (Wirtschaftsverfassung)						
	12	Property rights: free property, governmental property or social property						
	13							
		institutions) or free market production						
	14	Condition of Distribution: general money consideration, specially arranged money						
		consideration, specially free money consideration, charity						
	15							
V		State of economic development (Wirtschaftslauf)						
-	16	State of Economic Development: steady, progressive, between boom and stagnation						
	_	, , , , , , , , , , , , , , , , , , , ,						

Source: Own table based on Spiethoff (1932, p. 146–147)

Additionally, economic styles are accompanied by a kind of theorizing where theory and empirical identification (Wesensfeststellung) would control and correct each other (Spiethoff, 1932, p. 133). That means: Theory, reality and categorization interact with each other. Exactly this provides the space for interpretation to break the still dominant duality of *either* the deduction *or* the induction method, including the limitations of the scientist' choice to employ a certain scientific technique.

Furthermore, the economic life is to be understood as holistic or emergent and is characterized by an interacting network of elements:

'The reality must be measured as a whole, and every train of thought about the combination and explanation of causes must be embedded in this link of reality' (Spiethoff, 1932, p. 151; author's translation).

In addition and with respect to the economic styles of type 1, the historical economies are thought to be singular in time ('time-conditioned'). From this, the readers can conclude that any economy has its own history and this contains certain – i.e. time-conditioned – elements which are essential for its existence. As a result (again), each theory is limited to the time and its circumstances which are described by an (historical) economic style.

However, this basic principle is not limited to only the economic styles of type 1. As Gioia (1997, p. 184) wrote:

'the *Wirtschaftsstil* seems to me to present an undeniable advantage on the epistemological plane since it defines a sort of 'mental experiment' aimed at determining, for every explanation, a context of reference which explicitly fixes the selection criteria that stake out the area of validity of the explanation and at the same time establishes the network of semantic terms for its control.'

That means that Spiethoff's approach implies in more general terms that economic styles describe the framework that limits *any* economic theory. *Each* economic style contains (or rather should contain) all criteria for the related theory's application, validity and power of explanation. This is simply the general idea of Spiethoff's economic styles approach unfortunately not explicitly articulated in his articles about economic styles: Each theory requires a certain style and each style belongs to a theory.

In the case of analysing the real economic life, this *limiting function* is obviously clear or rather overshadowed by the demand for 'realism'. However, the economic styles also serve the limiting function in the case of creating interesting styles (type 3) or desired styles (type 4). Economic styles would then describe the more or less abstract framework of conditions in which (for type 3 and 4) a normative or speculative theory would 'work'.

In addition, the reader can infer that *each* economic style (irrespective of its type) has to be associated with an idea about how the described economic 'life' is *entirely* characterized. This idea about economic life has to be explained. As a result, economic styles could finally help to keep economic theorizing transparent, comprehensible and well-grounded in terms of theory, normative economics (or ethics) and 'reality'.

4 The economic styles associated with an alternative approach

The so-called 'mainstream' is often stereotypically criticised for its suggested lack of realism. That is mirrored by the critical student movements that loudly demand a 'real-world orientation'. Generally speaking, this 'real-world orientation' usually means the consideration of the essential elements of the social sphere (such as gender, power, attitude and ethics) being typically disregarded by the current standard theories of economics (see e.g. Lee, 2012; Lavoie, 2012). As a result these 'alternatives' to this standard can generally be defined by the consideration of the social sphere in which the 'real' economic life is embedded. As indicated by the economic style type 1, the economic styles can be associated with such an alternative. This is a more general impression that can, of course, be specified.

For instance, the German *Sozialökonomik* (social economics) is described as serving a more 'realistic' thinking about economy by especially considering the cultural aspects of economic life (see the anthology edited by Hedtke 2012). This can be illustrated by Mikl-Horke who explained that *Sozialökonomik* has to show 'a broad historical-cultural understanding of

¹⁰ This demand was articulated – among others – by the Parisian post-autistic movement around 2000. About 14 years later it is still at the centre of the students' catalogue of demands as it was most prominently shown by the *International Student Initiative for Pluralism in Economics* in 2014. See also the open letter of the Post-crash Economics Society at Manchester University (Chick et al. 2013).

economy' (Mikl-Horke 2014, p. 123; author's translation). Exactly this is typically considered by the Gestalt theory and its related economic style type 1 (the latter is indicated by its features such as economic spirit and social condition). The same applies to Moldaschl (2014) who characterised *Sozialökonomik* by an evolutionary-institutional and cultural style of thought (Denkstil).

Heterodox economists also often claim to serve a more 'realistic' thinking and theorising about the economic life. For instance, Lavoie (2012, p. 332) mentioned with respect to Post-Keynesianism that heterodox economists 'are concerned about the realism of their assumptions and with their capacity to tell a story that is supported by the facts'. And Frederic S. Lee wrote:

'The heterodox explanation involves human agency embedded in a cultural context and social processes in historical time affecting resources, consumption patterns, production and reproduction, and the meaning (or ideology) of market, state and non-market/state activities engaged in social provisioning.' (Lee, 2012, p. 340)

Exactly this can also be covered by the economic styles in terms of the type 1. Consequently, in the case where we are confined to the general demand for more 'realism' the economic styles approach shows an 'alternative' character in terms of heterodox economics in general and social economics in particular.

In contrast to a general and cursory understanding of 'alternatives' as considering the social sphere, the alternative character of economic approaches can be attributed to more details, as shown in Table 3.

Table 3: The alternative character of the economic styles approach

Alternatives	Consideration of the social sphere	Alternative character by	Covered by economic styles through	
Sozialökonomik (social economics)	general	consideration of culture, institutions and history	economic style type 1 and Gestalt theory:	
	general	realism, facts, time, culture, reproduction etc.	economic spirit (ethical attitude, mental incentives and attitude), social condition (social conjointness, social division of labour and social composition etc.)	
Heterodox economics	specified	social ontology: emergence, polyvalence, dynamics etc.		
German evolutionary economics	specified	dynamics, openness, historical uniquness etc.		

Source: Own table

For instance, heterodox economics can be referred to Tony Lawson's (1997; 2006) social ontology. Social ontology means the consideration of economic phenomena as part of the social sphere. Consequently, economic phenomena are characterised through emergence, (social) structure, polyvalence, value and meaning, intrinsic dynamics and somehow organic interconnections, especially by internal social relations (Lawson, 2013, pp. 954–955; Lawson, 2006, pp. 495–496, 499).

Similar attributes are mentioned as characteristics of the German evolutionary economics within Ulrich Witt (1987) and the first German textbook of evolutionary economics by Carsten Hermann-Pillath (2002).¹¹

Since Spiethoff's articles about economic styles were written between 1932 and 1953, it is no wonder that, from today's perspective, similarities between economic styles and evolutionary economics as well as social ontology are more or less implicit. The readers are simply required to interpret Spiethoff's approach.

Table 4 tries to interpret the economic styles approach – associated with economic styles type one – in order to show the shared common ground with the social ontology and the evolutionary economics.¹²

Table 4: Evolutionary economics, social ontology and economic styles

Features	German Evolutionary Economics	Social Ontology	Economic Styles Approach
Dynamics	Yes	Yes	Implied: by considering the state of development (steady, progressive, between boom and stagnation).
Openness	Yes	Yes	Implied: The concept and styles are open, but the phenomena described by the style are historically determined.
Historical uniqueness	Yes	Implied	In general and in particular by features such as the natural and technological basics and economic spirit.
Emergence	Yes	Yes	Implied: by considering emergent phenomena such as economic spirit and social conditions.
Endogenous creation of novelty	Yes	Implied	Implied: by considering the state of development, economic spirit (mental attitude) and the natural and technological basics of the society.
Differentiation of individual and objective knowledge	Yes	Unclear	Not explicitly mentioned, but partly implied by the natural and technological basics, social condition (social conjointness) and economic condition.
Interdependence	Implied	Yes	Implied: by features such as social condition (social division of labour), economic condition (condition of labour) and natural and technological basics

Source: Own table

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¹¹ Of course, there is much more literature about evolutionary economics (e.g. Nelson 1995), but any more differentiated discussion is beyond the scope of this article. Therefore, I concentrate on two books that are important for the development of evolutionary economics in Germany (where Spiethoff's approach is geographically and linguistically located). In addition, note that these parallels between social ontology and evolutionary economics may not be completely addressed by pure chance, because Lawson is an expert in evolutionary economics (e.g. see Lawson, 2003, pp. 110–140). However, especially his recent articles concerning social ontology are not directly referred to evolutionary economics. Consequently, Lawson's social ontology may be in accordance with evolutionary economics, but it is not limited by it.

¹² The differentiation between individual and objective knowledge is not explicitly mentioned within the social ontology: Lawson's concept could imply this differentiation, but this interpretation may imply some epistemic presumptions which can be in conflict with Tony Lawson's framework. 'Implied' means that similarities are not clearly articulated, but can be included through interpretation. For instance, emergence is mentioned by evolutionary economics as well as the social ontology, while Spiethoff's approach does not mention it explicitly. However, Spiethoff addressed 'economic spirit' and the 'social conditions' (see also Table 2), which are doubtlessly emergent phenomena.

5 Conclusion

Perhaps, the readers may counter Arthur Spiethoff's economic styles approach by the note that it is an old and unfinished endeavour which was (and is) hardly applied and is not represented by a chair today. In contrast to such criticism, this article tried to show reasons sufficiently enough to intend remembering and thinking again about Spiethoff's approach. First of all, if Spiethoff's approach would be *re-interpreted* today it would show an interesting potential for an integrative framework in general. 'Integrative' here means that this concept is able to integrate both standard approaches of economics and *different* heterodox approaches into one common framework of economics:

- 1. The stereotype of 'mainstream' theories: 'Mainstream' theories such as typically criticised by heterodox economists (e.g. Lee 2012; Lawson 2006; Lawson 1997) are suggested to be 'artificial' or 'unworldly', suffering over-mathematization and producing 'pseudo-knowledge'. These theories would address the pure theory in terms of Spiethoff's style type 3, i.e. pure theory with no counterpart 'in reality'. This pure theory is just a creation/ figure of thought (reines Denkgebilde) and aims at 'interesting styles'. A few assumptions might be accepted as 'realistic', but the entire style would remain artificial. The application and validity of such a theory and style is limited to its own artificial character. Consequently, these artificial theories can only be proofed against their 'inner' (deductive) logic. The neoclassical theory of labour supply, where perfect competition, perfect information, perfect rational individuals etc. are assumed, is an extraordinary illustrative example of pure theory in terms of an 'interesting' or artificial style.
- 2. Established standard theories of economics: The standard theories of economics clearly belong to pure theory, they employ mathematical techniques and, therefore, are clearly deductive. However, most of (current) economic standard theories seem to follow the style type 2 where the related pure theory is derived by abstraction from the concrete 'reality'. The source of deduction is not quite an unrealistic proposal, so pure theory can serve a historical theory and, according to Spiethoff, is thought to provide a heuristic tool to understand the 'reality'. Of course, the validity of the related models is again limited by the somewhat artificial or abstract economic style on which this kind of modelling is based. Firstly, the theory must be consistent. Secondly, since 'realistic' assumptions are incorporated into the pure theory, these assumptions must additionally be proofed against the 'reality'. Thirdly, if economists claim validity and applicability of their deduced results, the results must also be proofed against 'reality'. I suggest this is the everyday business of most of today's economists who are at least claiming to be sufficiently following the Critical Rationalism (or 'Popper-Tradition'). 13
- 3. Deductive Heterodoxy: Of course, heterodox economists who base their analyses on mathematics are also following the style type 2. As for the established economic standard, the validity and applicability of the theory are limited to the related economic style.

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¹³ For the relevance of *Critical Rationalism* and the tradition of 'Popperism' see Hands (2001). Besides this, this could also be consistent with Bartley's (1962) *Pancritical Rationalism*.

Consequently, the assumptions and results must be proofed against 'reality'. While most of economists working in the field of economic standard theory may be confined to a rather isolated proof against 'reality', heterodox economists employing deduction should additionally *re-embed* the 'abstract' theorizing into the *social context*. The latter means that abstract theorizing has to be re-embedded in the whole economic life from which the deductive premises of pure theory were originally isolated from. This especially includes thinking about the ethical dimension: What do the deduced results mean for the society? Are the deduced results desired or are they running the risk of causing social problems?

4. Stereotype of multidisciplinary Heterodoxy: Since heterodox economists typically claim to serve a 'realistic' theory, this goal would best be achieved by the creation of 'historical' or 'realistic' styles accompanied by an interrelated Gestalt theory as defined by Spiethoff's style type 1. Consequently, the validity and applicability of the related 'historical' or 'realistic' theory are limited by the unique historical circumstances. These circumstances include all of the elements of the social sphere, which are considered as essential characteristics for the corresponding economic style (type 1). The criterion of both validity and applicability is the observed 'reality', including all of the relevant elements of the style as well as the social context (and theory-practise relation). Obviously, such economic styles are especially appropriate to deal with the heterodox demand for considering the phenomena of the social sphere.

Table 5 below summarizes the application of Spiethoff's theories and styles to the kinds of economic theory mentioned within the debate about pluralism in economics. It also classifies theory and style along the related instances/levels of proof, i.e. the criteria for the theory's application, power of explanation and validity. Therefore, the findings of Table 5 can be associated with different ideas of 'realism'.

Table 5: Proofing styles and theories

		Assessment	Instance(s) of Proof			
	Theory		1	2	3	4
Style			Theory's Consistency	'Realistic' Assumptions/ Axioms	'Realistic' results	Social context/ theory and practice
Туре 1	Gestalt theory	Stereotype of multidisciplinary Heterodoxy	-	✓	✓	✓
Type 2: heuristic	Pure theory	Economic Standard Theory	✓	✓	✓	-
Type 2: heuristic	Pure theory	Deductive Heterodoxy	✓	✓	✓	✓
Type 3: interesting	Pure theory	Stereotype of the Neoclassical Mainstream	✓	-	-	-

Souce: Own table

In addition to this, there are further insights from the re-interpretation of the economic styles approach which are relevant to the recent discussion about the situation of economics.

- 1. Although deductive heterodoxy is possible, the approach of economic styles does not predetermine the scientific technique to analyze the economic life. Especially heterodox economists who base their research on economic styles of type 1 are free to use methods or techniques which are different from the techniques that are (so far) established within the established standard of economics (e.g. discourse analysis, group discussions or comparative qualitative analysis). As a result, the economic styles approach can also integrate insights from other disciplines, such as cultural anthropology, psychology and biology, into a common framework of economics.
- 2. The economic styles approach is open to the consideration of normative phenomena, for instance: moral incentives or ethical attitudes. Therefore, it would be able to address normative questions. As a result, the economic styles approach is also able to integrate specialisations of the economic science such as economic ethics (Wirtschaftsethik) into a common framework of economics.
- 3. The economic styles approach itself is open. That means that new or different features can be incorporated, while some other features might be dropped. According to this, economic and social development can be shown in a (completely) new style: The overall development of an economic life can finally be presented by the composition of all the different economic styles. The latter is implicitly an obviously everlasting process. However, the creation of 'artificial' or 'desired' styles is also possible. The economic styles approach is not limited to a certain style.
- 4. The economic styles approach can serve the transparency of economic theories. This is caused by the *limiting function* of the style: Since the styles concentrate on the description of economic life, which includes all the limitations of validity and applicability of *each* related theory, the economic styles approach implies a deliberative expenditure in disclosing the employed assumptions.
- 5. The transparency and the limiting function of the economic styles can improve the assessment of economic theories, especially for non-economists. If an economic theory is in conflict with the style on which this theory is based, the theory is not applicable and either the style or the theory must be modified.
- Therefore, the economic styles approach can improve the understanding of economic theories and also provide an interesting tool for policy making. That means that economic styles can be much more illustrative than the plain economic models of most of the established economists today, because the scientists have to communicate an idea of the entire economic life represented by the style. If economic recommendations are based on economic styles, which are related to the 'real' economic life, and the related theories are re-embedded in the social context, the public acceptance of such recommendations might be improved.

Against this background, the economic styles approach seems to be best serving the methodological and theoretical pluralism and multidisciplinarity in economics such as recently demanded by the *International Student Initiative for Pluralism in Economics* (ISIPE 2014).

Note that this also reveals an interesting fact for the history of economic thought: Spiethoff's economic styles can be associated with 'abduction', so the way of thinking about economic styles would consequently be the groundwork for using alternative academic means of research in economics. The latter address research methods that belong to the regular toolkit of research within other academic disciplines while they are unknown or do not enjoy great reputation within economics (e.g. grounded theory).

All things considered, scientists and students have a good reason to think about using the potential of the economic styles approach for the demand for pluralism in economics and the development of a framework for modern economics in general. However, this would lead to research projects and discussions far away from the path of the currently established standard of economics. Considering the situation and development of economics after the 'shock' of the economic crises 2007 and onwards, it is not a foregone conclusion whether economics can provide the right place for such a research.

References

- Ahmia, T. (2008). Das Schweigen der Ökonomen. In *taz*, 10 December, http://www.taz.de/!27663/ [date last accessed: 29 September 2013]
- Backhaus, J. G. (Ed) (2012). *Handbook of the History of Economic Thought*. New York, Dordrecht, Heidelberg London, Springer
- Bartley, W. W. (1984). *The Retreat to Commitment*. Second edition, München, La Salle and London: Open Court Publishing Company.
- Chick, V. et al (2014). We need economic theories fit for the real world. In *Guardian*, 21th November, http://www.theguardian.com/education/2013/nov/21/need-economic-theories-fit-real-world [date last accessed: 19 April 2014]
- Dequech, D. (2012). Post Keynesianism, Heterodoxy and Mainstream Economics. In *Review of Political Economy*, vol. 24, no. 1, 353–368.
- Dürmeier, Th. (2005). Post-Autistic Economics. Eine studentische Intervention für plural Ökonomik. In *Intervention*, vol. 2, no. 2, 65–76.
- Dullien, S. (2012). Ökonomen, die Unbelehrbaren. In *Frankfurter Rundschau*, 26 January, http://www.fr-online.de/meinung/gastbeitrag-von-sebastian-dullien-deutsche-oekonomen-die-unbelehrbaren,1472602,11513712.html [date last accessed: 29 September 2013]
- Fischermann, Th., and Pinzler, P. (2012). Angriff auf den Elfenbeinturm. In *ZEIT*, 16 February, http://www.zeit.de/2012/08/Makrooekonomie/komplettansicht [date last accessed: 29 September 2013]
- Gioia, V. (1997). Historical Changes and Economics in Arthur Spiethoff's Theory of Wirtschaftsstil (Style of an Economic System). In Koslowski, P. (Ed.), *Methodology of the Social Sciences, Ethics, and Economics in the Newer Historical School*. Berlin und Heidelberg, Springer, 168-193.
- Hands, D. W. (2001). *Reflection without Rules: Economic Methodology and Contemporary Science Theory*. Cambridge, Cambridge University Press

- Hedtke, R. (Ed.) (2014). Was ist und wozu Sozialökonomie? Wiesbaden, Springer VS
- Herrmann-Pillath, C. (2002). Grundriß der Evolutionsökonomik. München, Wilhelm Fink Verlag.
- Kaufhold, K. H. (1996). Zur Entwicklung des Wirtschaftsstildenkens in Deutschland. In Klump, R. (Ed.), Wirtschaftskultur, Wirtschaftsstil und Wirtschaftsordnung, Marburg, Metroplis-Verlag, 21-38
- Klump, R. (Ed.) 1996. Wirtschaftskultur, Wirtschaftsstil und Wirtschaftsordnung. Marburg, Metroplis-Verlag, 9–20
- Kolb, G. (2004). Geschichte der Volkswirtschaftslehre: Dogmenhistorische Positionen des ökonomischen Denkens. Second edition, München: Vahlen.
- Kurz, Heinz D. (2010). The Beat of the Economic Heart: Joseph Schumpeter and Arthur Spiethoff on Business Cycles. In *MPRA Paper* No. 20429, http://mpra.ub.uni-muenchen.de/20429/ [28.06.2015].
- Lavoie, M. (2012). Perspectives for Post-Keynesian Economics. In *Review of Political Economy*, vol. 24, no. 2, 321–335
- Lawson, T. (2013). What is this 'school' called neoclassical economics? In *Cambridge Journal of Economics*, vol. 37, no. 5, 947–983
- Lawson, T. (2006(. The nature of heterodox economics. In *Cambridge Journal of Economics*, vol. 30, no. 4, 483–505
- Lawson, T. (2003). Reorienting Economics. London: Routledge
- Lawson, T. (1997). Economics and Reality. London and New York: Routledge
- Lee, F. S. (2012). Heterodox Economics and its Critics. In *Review of Political Economy*, vol. 24, no. 2, 337–351
- Liebert, N. (2009). Das Elend der Wirtschaftswissenschaften. In *taz*, 16 April, http://www.taz.de/!33303/ [date last accessed: 29 September 2013]
- Mikl-Horke, G. (2014). Traditionen, Problemstellungen und Konstitutionsprobleme der Sozioökonomie. In Hedtke, R. (Ed.), *Was ist und wozu Sozialökonomie?* Wiesbaden: Springer VS, 95–124.
- Moldaschl, M. (2014). Einbettung der Sozialökonomik, in Hedtke, R. (Ed.), *Was ist und wozu Sozialökonomie?* Wiesbaden, Springer VS, 125–158.
- Nelson, R. R. (1995). Recent Evolutionary Theorizing About Economic Change. In *Journal of Economic Literature*, vol. 33, no. 1, 48–90.
- Plickert, Ph. (2009). Die Ökonomik in der Vertrauenskrise. In *Frankfurter Allgemeine Zeitung*, 13 May, http://www.faz.net/-gqq-127uk [date last accessed: 29 September 2013]
- Quaas, F. (2009). Der Wirtschaftsstil der Sozialen Marktwirtschaft aus evolutorischer Perspektive. In Aßländer, M., and Ulrich, P. (Ed.), 60 Jahre Soziale Marktwirtschaft, Stuttgart and Wien, Haupt, 119–145.
- Redlich, F. (1970). Arthur Spiethoff on Economic Styles. In *The Journal of Economic History*, vol. 30, no. 3, 640–652
- Reichertz, J. (2013). *Die Abduktion in der qualitativen Sozialforschung*. Second edition, Wiesbaden: Springer VS.

- Reichertz, J. (2010). Abduction: The Logic of Discovery of Grounded Theory. In *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, Vol. 11, No. 1, article 13, online: , http://nbn-resolving.de/urn:nbn:de:0114-fqs1001135 [date last accessed: 9 April 2015]
- Reichertz, J. (1999). Gültige Entdeckung des Neuen? In Österreichische Zeitschrift für Soziologie, Jg. 24, Nr. 4, pp. 47–64
- Rieter, H. and Zweynert, J. (Ed.) (2009). *Economic styles in the process of EU eastern enlargement*. Baden-Baden: Nomos.
- Rieter, H. (2002). Historische Schulen. In Issing, O. (Ed.), *Geschichte der Nationalökonomie*, München, Vahlen, 131–168.
- Rossi, S. (2006). Wirtschaftsstil und Wirtschaftskultur: Italien und Frankreich im Vergleich. Saarbrücken: VDM.
- Söllner, F. (2012). *Die Geschichte des ökonomischen Denkens*. Third edition, Berlin and Heidelberg: Springer Gabler
- Schefold, B. (2011). Cameralism as an intermediary between Mediterranean Scholastic economic thought and classical economics. In Kurz, H. D. et al. (Ed.), *The Dissemination of Economic Ideas* Cheltenham (UK) and Northampton/ MA (USA): Edward Elgar, 13–40.
- Schefold, B. (1994). *Wirtschaftsstile*, Band 1 (subtitled with: Studien zum Verhältnis von Ökonomie und Kultur). Frankfurt a. Main: Fischer Taschenbuch Verlag.
- Spiethoff, A. (1953). Pure Theory and Gestalt Theory: Ideal Types and Real Types. In Lane, F. C., and Riemersma, J. C. (Eds.), *Enterprise and Secular Change: Readings in Economic History*. London: Allen and Unwin, 431–463.
- Spiethoff, A. (1952). The 'Historical' Character of Economic Theories. In *The Journal of Economic History*, vol. 12, no. 2, 131–139.
- Spiethoff, A. (1932). Die Allgemeine Volkswirtschaftslehre als geschichtliche Theorie. Die Wirtschaftsstile. In Schachtschnabel, H. G. (Ed.) (1971), Wirtschaftsstufen und Wirtschaftsordnungen. Darmstadt: Wissenschaftliche Buchgesellschaft, 123–155.
- Storbeck, O. (2009). Das systemische Versagen der Ökonomen. In *Handelsblatt*, 6 October, http://www.handelsblatt.com/politik/oekonomie/nachrichten/jahrhundert krise-das-systemische-versagen-der-oekonomen-seite-all/3274944-all.html [date last accessed: 29 September 2013]
- Witt, U. (1987). *Individualistische Grundlagen der evolutorischen Ökonomik*. Tübingen: Mohr-Siebeck.